Johnson County Central
High School

Curriculum Guide

Class Objectives
State Standards
Six Trait Writing
Multicultural

Updated on: Summer of 2016
By: Principal Rick Lester

TITLE: **APPLIED MATH I**
GRADE: **9TH**

RESOURCE MATERIALS: Textbook: Math Matters: An Integrated program (Glencoe 2006)

CRITERIA FOR EVALUATION AND ASSESSMENT: Daily textbook/worksheet assignments, short assignment quizzes, weekly quizzes, unit exams, and state standard assessments.

STATE STANDARDS:

MA 12.1 Students will communicate number sense concepts using multiple representations to reason, solve problems, and make connections within mathematics and across disciplines.

MA 12.1.1 Number System: Students will represent and show relationships among complex numbers.

MA 12.1.1.a Demonstrate multiple equivalent forms of irrational numbers (e.g.,)
MA 12.1.1.b Compare, contrast and apply the properties of numbers and the real number system, including rational, irrational, imaginary, and complex numbers

MA 12.1.2 Operations: Students will demonstrate the meaning and effects of arithmetic operations with real numbers.

MA 12.1.2.a Use drawings, words, and symbols to explain the effects of such operations as multiplication and division, and computing positive powers and roots on the magnitude of quantities (e.g., if you take the square root of a number, will the result always be smaller than the original number? (e.g.,))
MA 12.1.2.b Use drawings, words, and symbols to explain that the distance between two numbers on the number line is the absolute value of their difference

MA 12.1.3 Computation: Students will compute fluently and accurately using appropriate strategies and tools.

MA 12.1.3.a Compute accurately with real numbers
MA 12.1.3.b Simplify exponential expressions (e.g., powers of -1, 0, ½,)
MA 12.1.3.c Multiply and divide numbers using scientific notation
MA 12.1.3.d Select, apply, and explain the method of computation when problem solving using real numbers (e.g., models, mental computation, paper-pencil, or technology)

MA 12.1.4 Estimation: Students will estimate and check reasonableness of answers using appropriate strategies and tools.

MA 12.1.4.a Use estimation methods to check the reasonableness of real number computations and decide if the problem calls for an approximation or an exact number (e.g., 10 π (pi) is approximately 31.4, square and cube roots)
MA 12.1.4.b Distinguish relevant from irrelevant information, identify missing information and either find what is needed or make appropriate estimates

MA 12.2 Students will communicate geometric concepts and measurement concepts using multiple representations to reason, solve problems, and make connections within mathematics and across disciplines.

MA 12.2.1 Characteristics: Students will analyze characteristics, properties, and relationships among geometric shapes and objects.

MA12.2.1.a Identify and explain the necessity of and give examples of definitions and theorems
MA 12.2.1.b Analyze properties and relationships among classes of two and three dimensional geometric objects using inductive reasoning and counterexamples
MA 12.2.1 c State and prove geometric theorems using deductive reasoning (e.g., parallel lines with transversals, congruent triangles, similar triangles)
MA 12.2.1.d Apply geometric properties to solve problems (e.g., parallel lines, line transversals, similar triangles, congruent triangles, proportions)
MA 12.2.1.e Identify and apply right triangle relationships (e.g., sine, cosine, tangent, special right triangles, converse of Pythagorean Theorem)

MA 12.2.1.f Recognize that there are geometries, other than Euclidean geometry, in which the parallel postulate is not true
MA12.2.1.g Know the definitions and basic properties of a circle and use them to prove basic theorems and solve problems

MA 12.2.2 Coordinate Geometry: Student will use coordinate geometry to analyze and describe relationships in the coordinate plane.

MA 12.2.2.a Use coordinate geometry to analyze geometric situations (e.g., parallel lines, perpendicular lines, circle equations)
MA 12.2.2.b Apply the midpoint formula
MA 12.2.2.c Apply the distance formula
MA 12.2.2.d Prove special types of triangles and quadrilaterals (e.g., right triangles, isosceles trapezoid, parallelogram, rectangle, square)

MA 12.2.3 Transformations: Students will apply and analyze transformations.

MA 12.2.3.a Explain and justify the effects of simple transformations on the ordered pairs of two-dimensional shapes
MA 12.2.3.b Perform and describe multiple transformations

MA 12.2.4 Spatial Modeling: Students will use visualization, spatial reasoning, and geometric modeling to solve problems.

MA 12.2.4.a Sketch and draw appropriate representations of geometric objects using ruler, protractor, or technology
MA 12.2.4.b Use geometric models to visualize, describe, and solve problems (e.g., find the height of a tree; find the amount of paint needed for a room; scale model)

MA 12.2.5 Measurement: Students will apply the units, systems, and formulas to solve problems.

MA 12.2.5.a Use strategies to find surface area and volume of complex objects
MA 12.2.5.b Apply appropriate units and scales to solve problems involving measurement
MA 12.2.5.c Convert between various units of area and volume, such as square feet to square yards
MA 12.2.5.d Convert equivalent rates (e.g., feet/second to miles/hour)
MA 12.2.5.e Find arc length and area of sectors of a circle
MA 12.2.5.f Determine surface area and volume of three-dimensional objects (e.g., spheres, cones, pyramids)
MA12.2.5.g Know that the effect of a scale factor k on length, area and volume is to multiply each by k, k^2 and k^3, respectively

MA 12.3 Students will communicate algebraic concepts using multiple representations to reason, solve problems, and make connections within mathematics and across disciplines.

MA 12.3.1 Relationships: Students will generalize, represent, and analyze relationships using algebraic symbols.

NON LINEAR FUNCTIONS INCLUDE: QUADRATIC, ABSOLUTE VALUE, SQUARE ROOT, EXPONENTIAL
MA 12.3.1.a Represent, interpret, and analyze functions with graphs, tables, and algebraic notation and convert among these representations (e.g., linear, non-linear)
MA 12.3.1.b Identify domain and range of functions represented in either symbolic or graphical form (e.g., linear, non-linear)
MA 12.3.1.c Identify the slope and intercepts of a linear relationship from an equation or graph
MA 12.3.1.d Identify characteristics of linear and non-linear functions
MA 12.3.1.e Graph linear and non-linear functions
MA 12.3.1.f Compare and analyze the rate of change by using ordered pairs, tables, graphs, and equations
MA 12.3.1.g Graph and interpret linear inequalities
MA 12.3.1.h Represent, interpret, and analyze functions and their inverses
MA 12.3.1.i Determine if a relation is a function

MA 12.3.2 Modeling in Context: Students will model and analyze quantitative relationships.

CONTEXTUALIZED PROBLEM – A MATHEMATICAL SITUATION PLACED IN A PARTICULAR CONTEXT (E.G., USING WORDS, DIAGRAMS, TABLES, DRAWINGS, ETC.)
MA 12.3.2.a Model contextualized problems using various representations (e.g., graphs, tables, one variable equalities, one variable inequalities, linear equations in slope intercept form, inequalities in slope intercept form, system of linear equations with two variables)
MA 12.3.2.b Represent a variety of quantitative relationships using linear equations and one variable inequalities
MA 12.3.2.c Analyze situations to determine the type of algebraic relationship (e.g., linear, nonlinear)
MA 12.3.2.d Model contextualized problems using various representations for non-linear functions (e.g., quadratic, exponential, square root, and absolute value)

MA 12.3.3 Procedures: Students will represent and solve equations and inequalities.
MA 12.3.3.a Explain/apply the reflexive, symmetric, and transitive properties of equality
MA 12.3.3.b Simplify algebraic expressions involving exponents (e.g., $(3x_4)_2$)
MA 12.3.3.c Add and subtract polynomials
MA 12.3.3.d Multiply and divide polynomials (e.g., divide $x_3 – 8$ by $x – 2$, divide $x_4 – 5x_3 – 2x$ by x_2)
MA 12.3.3.e Factor polynomials
MA 12.3.3.f Identify and generate equivalent forms of linear equations
MA 12.3.3.g Solve linear equations and inequalities including absolute value
MA 12.3.3.h Identify and explain the properties used in solving equations and inequalities
MA 12.3.3.i Solve quadratic equations (e.g., factoring, graphing, quadratic formula)
MA 12.3.3.j Add, subtract, and simplify rational expressions
MA 12.3.3.k Multiply, divide, and simplify rational expressions
MA 12.3.3.l Evaluate polynomial and rational expressions and expressions containing radicals and absolute values at specified values of their variables
MA 12.3.3.m Derive and use the formulas for the general term and summation of finite arithmetic and geometric series
MA 12.3.3.n Combine functions by composition, as well as by addition, subtraction, multiplication, and division
MA 12.3.3.o Solve an equation involving several variables for one variable in terms of the others
MA 12.3.3.p Analyze and solve systems of two linear equations in two variables algebraically and graphically

MA 12.4 Students will communicate data analysis/probability concepts using multiple representations to reason, solve problems, and make connections within mathematics and across disciplines.

MA 12.4.1 Display and Analysis: Students will formulate a question and design a survey or an experiment in which data is collected and displayed in a variety of formats, then select and use appropriate statistical methods to analyze the data.

MA 12.4.1.a Interpret data represented by the normal distribution and formulate conclusions
MA 12.4.1.b Compute, identify, and interpret measures of central tendency (mean, median, mode) when provided a graph or data set
MA 12.4.1.c Explain how sample size and transformations of data affect measures of central tendency
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MA 12.4.2 Predictions and Inferences: Students will develop and evaluate inferences to make predictions.
MA 12.4.2.a Compare data sets and evaluate conclusions using graphs and summary statistics
MA 12.4.2.b Support inferences with valid arguments
MA 12.4.2.c Develop linear equations for linear models to predict unobserved outcomes using regression line and correlation coefficient
MA 12.4.2.d Recognize when arguments based on data confuse correlation with causation

MA 12.4.3 Probability: Students will apply and analyze concepts of probability.
MA 12.4.3.a Construct a sample space and a probability distribution
MA 12.4.3.b Identify dependent and independent events and calculate their probabilities
MA 12.4.3.c Use the appropriate counting techniques to determine the probability of an event (e.g., combinations, permutations)
MA 12.4.3.d Analyze events to determine if they are mutually exclusive
MA 12.4.3.e Determine the relative frequency of a specified outcome of an event to estimate the probability of the outcome

SIX TRAIT CURRICULUM

The Johnson County Central Public School District endorses and implements the Six Traits model of writing instruction and assessment. It is an ongoing expectation that all faculty members will implement this mode of language instruction in their classroom.

IDEAS – The writer's primary message, point of story, showing details and clarity.
ORGANIZATION – Putting information into an order that shows direction and purpose.

VOICE – Includes the expression of a writer's personality; an awareness of the intended audience; and a skillful blend of detail, enthusiasm, and knowledge of the topic.
WORD CHOICE – Selecting, identifying, and revising specific descriptive language.
SENTENCE FLUENCY – Smooth writing patterns and rhythmic flow of language.
CONVENTIONS – Using appropriate editing and presentation skills.

Criteria For Evaluation And Assessments:

1. Inclusion of Six Trait Writing skills in course assessments.

MULTICULTURAL EDUCATION

The instructional program at Johnson County Central Public Schools incorporates multicultural education in all curriculum areas at all grades. Multicultural education includes, but is not limited to, studies relative to the culture, history, and contributions of African Americans, Hispanic Americans, Native Americans, Asian Americans and European Americans with special emphasis on human relations and sensitivity toward all races.

Criteria For Evaluation And Assessments:

1. Inclusion of Multicultural topics and activities in course assessments.

UNIT 1: DATA AND GRAPHS

Collect and Interpret Data
- -choose a procedure to sample a population
- -interpret data from tables, charts, and survey results

Measures of Central Tendency
- -use the measures of central tendency
- -find the range of a set of data

Stem-and-Leaf Plots
- -read and create a stem-and-leaf plot

Circle Graphs
- -solve problems with circle graphs
- -solve a simpler problem

Frequency Tables and Pictographs
- -interpret and construct bar graphs and line graphs
- -make predictions from bar graphs and line graphs

Scatter Plots and Lines of Best Fit
- -read and create scatter plots
- -use lines of best fit to identify trends

Box-and-Whisker Plots
- -read and create box-and-whisker plots

UNIT 2: MEASUREMENT

Units of Measure
- -choose appropriate units of measure
- -estimate measures

Work with Measurements
- -convert units of measure
- - perform basic operations using units of measure

Perimeters of Polygons
- -find the perimeter of polygons
- -solve problems involving perimeter

Areas of Parallelograms and Triangles

-solve problems using area formulas

Problem Solving: Quantity and Cost

-solve problems with quantity and cost

-use an equation or formula to solve a problem

Equivalent Ratios

-read and write ratios in lowest terms

-find an equivalent ratio

Circumference and Area of a Circle

-find the circumference and area of circles

Proportions and Scale Drawings

-solve problems by writing and solving proportions

-apply and interpret scale drawings

Areas of Irregular Shapes

-use area formulas to find the area of irregular shapes

UNIT 3: REAL VARIABLES AND VARIABLE EXPRESSIONS

Add and Subtract Signed Numbers

-add and subtract numbers using a number line or rules

-use addition properties to find the sum of two numbers

Multiply and Divide Signed Numbers

-use rules to multiply and divide signed numbers

Order of Operations

-use order of operations to evaluate expressions

-use order of operations to solve real world problems

Real Number Properties

-categorize numbers according to sets

-solve problems involving real number properties

Variables and Expressions

-write and evaluate variable expressions

Problem Solving Skills: Find a Pattern

-find a pattern to solve a problem

-make a table, chart, or list to solve a problem

Exponents and Scientific Notation

-express numbers in exponential form and scientific notation

Laws of Exponents

-apply the laws of exponents

Squares and Square Roots

-calculate squares and square roots.

UNIT 4: TWO AND THREE DIMENSIONAL GEOMETRY

Language of Geometry

-identify and classify geometric figures

-use a protractor to measure and draw angles

Polygons and Polyhedra

-identify and classify polygons

-identify the faces, edges, and vertices of polyhedra

Visualize and Name Solids

-identify polyhedra

-identify three-dimensional figures with curved surfaces

Problem Solving Skills: Nets

-use a net to solve a problem

-draw a picture, diagram, or model to solve a problem

Isometric Drawings
-visualize and represent shapes with isometric drawings
Volume of Prisms and Cylinders
-find the volume of prisms and cylinders
Volume of Pyramids and Cones
-find the volume of pyramids and cones
Surface Area of Prisms and Cylinders
-find the surface area of prisms and cylinders

UNIT 5: EQUATIONS AND INEQUALITIES

Introductions to Equations
-understand equations and find their solutions
Add or Subtract to Solve Equations
-use addition and subtraction to solve equations
Multiply or Divide to Solve Equations
-solve equations using multiplication and division
Solve Two-Step Equations
-solve equations that require two steps to find the solution
Combine Like Terms
-solve an equation by combining like terms
Use Formulas to Solve Problems
-apply formulas in problem solving situations
Graph Open Sentences
-graph open sentences on a number line
Solve Inequalities
-solve inequalities with one variable

UNIT 6: EQUATIONS AND PERCENTS

Percents and Proportions
-use a proportion to solve problems involving percents
Write Equations for Percents
-write equations to solve problems involving percents
Discount and Sale Price
-find the discount and sale price of an item
-find the rate of discount
-solve problems involving discount and sale price
Solve Problems Using Tax Rates
-use proportions to solve tax problems
-use equations to solve tax problems
Simple Interest
-calculate simple interest, interest rate, and amount due
Sales Commission
-calculate commission, commission rate, and total income
Percent of Increase and Decrease
-calculate percent of increase and decrease
-solve problems involving percent of increase of decrease
Problem Solving: Sales and Expenses
-solve problems involving sales and expenses
-make a table, chart, or list to problem-solve

UNIT 7: FUNCTIONS AND GRAPHS

Problem Solving Skills: Qualitative Graphing

-use qualitative graphs to solve problems
-solve problems by acting it out

The Coordinate Plane
-identify points on the coordinate plane
-graph ordered pairs on the coordinate plane

Relations and Functions
-state the domain, range, and whether a relation is a function
-evaluate a function by using a function rule

Linear Graphs
-find solutions and intercepts of equations
-graph functions

Slope of a Line
-find the slope of a line given its graph
-find the slope of a line given two points on the line
-identify positive, negative, zero, and undefined slopes

Distance and the Pythagorean Theorem
-use distance formula to find the distance between two points
-use the Pythagorean THM to find distance

Solutions of Linear and Nonlinear Equations
-determine if an ordered pair is included in the solution
-use the line of best fit to interpret a set of data

UNIT 8: RELATIONSHIPS IN GEOMETRY

Angles and Transversals
-measure and classify angles
-explore the relationship between transversals and angles

Beginning Constructions
-construct line segments and copies of angles
-construct angle bisectors and perpendicular bisectors

Diagonals and Angles of Polygons
-determine the number of diagonals in a polygon
-explore the sum of the internal angles in a polygon

Problem Solving Skills: Modeling Problems
-use modeling to solve a problem
-solve problems by acting it out

Translations in the Coordinate Plane
-identify and draw translations

Reflections and Line Symmetry
-identify and draw reflections
-identify and use lines of symmetry

Rotations and Tessellations
-identify and draw rotations and tessellations
-identify rotational symmetry

UNIT 9: POLYNOMIALS

Introduction to Polynomials
-write polynomials in standard form
-simplify polynomials

Add and Subtract Polynomials
-add and subtract polynomials

Multiply Monomials
-multiply monomials

-solve area problems by multiplying monomials

Multiply a Polynomial by a Monomial

-solve problems by multiplying a polynomial by a monomial

Factor Using Greatest Common Factor

-factor polynomials using the gcf

Divide by a Monomial

-divide a monomial by a monomial

-divide a polynomial by a monomial

UNIT 10: PROBABILITY

Introduction to Probability

-draw a picture, diagram, or model to solve a problem

Isometric Drawings

-visualize and represent shapes with isometric drawings

Volume of Prisms and Cylinders

-find the volume of prisms and cylinders

Volume of Pyramids and Cones

-find the volume of pyramids and cones

Surface Area of Prisms and Cylinders

-find the surface area of prisms and cylinders

UNIT 11: REASONING

Optical Illusions

-use optical illusions to make statements

-determine the truth-value of statements

Inductive Reasoning

-use inductive reasoning to make and test conjectures

Deductive Reasoning

-write conditional statements and identify them as true or false

-identify valid and invalid deductive arguments

Venn Diagrams

-draw Venn diagrams

-use Venn diagrams to solve problems

Use Logical Reasoning

-make a table to solve non-routine problems

-solve non-routine problems using logic

Problem Solving Skills: Reasonable Answers

-solve a problem by checking for a reasonable answer

-eliminate possibilities to solve a problem

Non-Routine Problem Solving

-solve non-routine problems involving multiple steps

-solve non-routine problems involving reasoning processes

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GRADES: 10th

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MA 12.4.3.a Construct a sample space and a probability distribution
MA 12.4.3.b Identify dependent and independent events and calculate their probabilities
MA 12.4.3.c Use the appropriate counting techniques to determine the probability of an event (e.g., combinations, permutations)
MA 12.4.3.d Analyze events to determine if they are mutually exclusive
MA 12.4.3.e Determine the relative frequency of a specified outcome of an event to estimate the probability of the outcome

SIX TRAIT CURRICULUM

Criteria For Evaluation And Assessments:

1. Inclusion of Six Trait Writing skills in course assessments.

MULTICULTURAL EDUCATION

Criteria For Evaluation And Assessments:

1. Inclusion of Multicultural topics and activities in course assessments.

UNIT 1: SAMPLE AND DISPLAY DATA

Surveys and Sampling Methods
- -identify sampling methods
- -recognize biased surveys

Measures of Central Tendency and Range
- -calculate mean, median, and mode of data
- -find the range of a set of data

Histograms and Stem-and-Leaf Plots
- -use and create histograms to solve problems
- -use and create stem-and-leaf plots to solve problems

Scatter Plots and Lines of Best Fit
- -use scatter plots to solve problems
- -use a graphing utility to determine a line of best fit

Quartiles and Percentiles
- -identify quartiles and calculate percentiles
- -create a box-and-whisker plot

Misleading Graphs and Statistics
- -recognize how a graph can be misleading
- -identify the misleading use of the word "average"

Use Matrices to Organize Data
- -organize and display data in matrices
- -perform basic operations using matrices

UNIT 2: FOUNDATIONS OF ALGEBRA

Real Numbers
- -graph sets of numbers on a number line

Order of Operations
- -evaluate numerical expressions using order of operations

Write Variable Expressions
- -write variable expressions to represent word phrases
- -write word phrases to represent variable expressions

Add and Subtract Variable Expressions
- -simplify variable expressions
- -evaluate variable expressions

Multiply and Divide Variable Expressions
- -simplify variable expressions
- -evaluate variable expressions

Simplify Variable Expressions
- -add, subtract, multiply, and divide to simplify variable expressions

Properties of Exponents
- -evaluate variable expressions

Zero and Negative Exponents
- -write numbers using zero and negative integers as exponents
- -write numbers in scientific notation

Problem Solving Skills: Find a Pattern
- -describe and extend sequences to solve problems

UNIT 3: EQUATIONS AND INEQUALITIES

Equations and Formulas
- -determine if a number is a solution of an equation
- -solve an equation or formula

One-Step Equations
- -solve one-step equations
- -solve formulas for a given variable

Problem Solving Skills: Model Algebra
- -use algebra to model and solve problems

Equations with Two or More Operations
- -solve two-step equations and formulas

Proportions
- -write and solve proportions

Graph Inequalities on a Number Line
- -determine if a number is a solution of an inequality
- -graph the solution of an inequality on a number line

Solve Inequalities
- -solve and graph inequalities on a number line
- -solve problems involving inequalities

Equations with Squares and Square Roots
- -solve equations involving squares
- -solve equations involving square roots

UNIT 4: PROBABILITY

Experiments and Probabilities
- -use experiments to collect data
- -use data to find experimental probabilities

Problem Solving Skills: Simulations
- -solve a problem using simulations
- -solve a problem by acting it out

Sample Spaces and Theoretical Probability
- -determine sample spaces using various methods such as tree diagrams
- -find theoretical probabilities

Probability of Compound Events
- -find probabilities of compound events
- -explore mutually exclusive compound events

Independent and Dependent Events
- -find probabilities of dependent events
- -find the probability of independent events

Permutations of a Set
- -find the number of permutations of a set

Combinations of a Set
- -find the number of combinations of a set

UNIT 5: LOGIC AND GEOMETRY

Elements of Geometry
- -identify fundamental geometric concepts
- -identify and use basic geometric postulates

Angles and Perpendicular Lines
- -identify and use perpendicular lines
- -identify and use angle relationships

Parallel Lines and Transversals

-identify angles formed by parallel lines and transversals
-identify and use properties of parallel lines

Properties of Triangles
-classify triangles according to their sides and angles
-identify and use properties of triangles

Congruent Triangles
-use postulates to identify congruent triangles

Quadrilaterals and Parallelograms
-classify different types of quadrilaterals
-identify and use properties of parallelograms

Diagonals and Angles of Polygons
-classify polygons according to their sides
-find the sum of the angle measures of polygons

Properties of Circles
-understand relationships among parts of a circle
-identify and use properties of circles

Problem Solving Skills: Circle Graphs
-solve a problem using a circle graph
-use a picture, diagram, or model

UNIT 6: GRAPHING FUNCTIONS

Distance in the Coordinate Plane
-use the distance formula to find the distance between two points
-use the midpoint formula to find the midpoint of a line segment

Slope of a Line
-find the slope of a line
-identify horizontal and vertical lines

Write and Graph Linear Inequalities
-write linear inequalities in two variables
-graph linear inequalities in two variables on the coordinate plane

Linear and Nonlinear Functions
-graph linear functions
-identify the domain and range of a function

Graph Quadratic Functions
-identify points given the graph of a quadratic function
-graph simple quadratic functions

Patterns and Functions
-use a function table to recognize a function rule

Direct Variation
-solve problems involving direct variation functions
-solve problems involving direct square variation functions

Inverse Variation
-solve problems involving inverse variation functions
-solve problems involving inverse square variation functions

UNIT 7: COORDINATE GRAPHING AND TRANSFORMATIONS

Translations in the Coordinate Plane
-describe and graph translation images on a coordinate plane

Reflections in the Coordinate Plane
-graph reflection images on a coordinate plane

Rotations in the Coordinate Plane
-graph rotated images in the coordinate plane

-identify centers, angles, and directions of rotations

Line Symmetry and Rotational Symmetry

-identify lines of symmetry

-identify order of rotational symmetry

Dilations in the Coordinate Plane

-draw dilation images on a coordinate plane

-determine the scale factor of dilations

UNIT 8: SYSTEMS OF EQUATIONS AND INEQUALITIES

Parallel and Perpendicular Lines

-use slope to determine if two lines are parallel or perpendicular

-write equations of parallel and perpendicular lines

Solve Systems of Equations Graphically

-state if an ordered pair is a solution of a system of equations

-solve systems of linear equations graphically

Solve Systems of Equations by Substitution

-solve systems of equations by using the substitution method

Solve Systems of Equations by Adding, Subtracting, and Multiplying

-solve systems of equations by using the elimination method

Systems of Inequalities

-write a system of linear inequalities for a given graph

-graph a solution set of a system of linear inequalities

UNIT 9: POLYNOMIALS

Add and Subtract Polynomials

-write polynomials in standard form

-add and subtract polynomials

Multiply Monomials

-use the rules of exponents to multiply monomials

-use the rules of exponents to raise monomials to powers

Divide by a Monomial

-divide monomials and polynomials by a monomial

Multiply a Polynomial by a Monomial

-multiply a polynomial by a monomial using the distributive property

Multiply Binomials

-use the FOIL method to multiply binomials

Problems Solving Skills: Work Backwards

-solve problems by working backwards

Factor Using Greatest Common Factor

-factor a polynomial using the GCF

Perfect Squares and Difference of Squares

-factor perfect square trinomials

-factor a difference of perfect squares

UNIT 10: THREE-DIMENSIONAL GEOMETRY

Visualize and Represent Solids

-identify properties of three-dimensional figures

-visualize three-dimensional geometric figures

Nets and Surface Area

-draw nets for three-dimensional figures

-use nets to find the surface area of three-dimensional figures

Surface Area of Three-Dimensional Figures

-find the surface area of three-dimensional figures

Volume of Prisms and Pyramids

-use a formula to find the volume of prisms and pyramids

Volume of Cylinders, Cones, and Spheres

-find the volume of cylinders, cones, and spheres

Problem Solving Skills: Length, Area, and Volume

-solve a problem using length, area, and volume

-use an equation of formula to solve a problem

UNIT 11: RIGHT TRIANGLE GEOMETRY

Similar Polygons

-identify similar polygons

-find measures of similar polygons

Indirect Measurement

-use similar triangles to find indirect measurements

The Pythagorean Theorem

-use the Pythagorean Theorem to find unknown lengths

Sine, Cosine, and Tangent Ratios

-identify the sine, cosine, and tangent ratios in a right triangle

-Compute the sine, cosine, and tangent ratios for different angles

Find Length of Sides in Right Triangles

-Use trigonometric ratios to find the lengths of sides in right triangles

Special Right Triangles

-explore the relationship in 30-60-90 degree right triangles

-explore the relationship in 45-45-90 degree right triangles

Problem Solving Skills: Reasonable Solutions

-solve a problem using reasonable solutions

-solve a problem by eliminating possibilities

UNIT 12: LOGIC AND SETS

Properties of Sets

-define sets using different notations

-explore and use properties of sets

Union and Intersection of Sets

-find the complement of a set

-find the union and intersection of two sets

Problem Solving Skills: Conditional Statements

-solve a problem using conditional statements

Converse, Inverse, and Contrapositive

-compare the converse, inverse, and contrapositive of conditional statements

-determine if conditional statements are true or false

Inductive and Deductive Reasoning

-identify and use inductive reasoning

-identify and use deductive reasoning

Patterns of Deductive Reasoning

-identify arguments as valid or invalid

Logical Reasoning and Proof

-use logical reasoning to prove algebraic statements

-use logical reasoning to prove geometric statements

TITLE: **BEGINNING ALGEBRA**
GRADES: **9^{TH} – 12^{TH}**

RESOURCE MATERIALS: Textbook: Algebra 1 (Glencoe 2001), TI-83 Plus Graphing Calculators

CRITERIA FOR EVALUATION AND ASSESSMENT: Daily textbook/worksheet assignments, short assignment quizzes, weekly quizzes, unit exams, and state standard assessments.

STATE STANDARDS:

MA 12.1 Students will communicate number sense concepts using multiple representations to reason, solve problems, and make connections within mathematics and across disciplines.

MA 12.1.1 Number System: Students will represent and show relationships among complex numbers.

MA 12.1.1.a Demonstrate multiple equivalent forms of irrational numbers (e.g.,)
MA 12.1.1.b Compare, contrast and apply the properties of numbers and the real number system, including rational, irrational, imaginary, and complex numbers

MA 12.1.2 Operations: Students will demonstrate the meaning and effects of arithmetic operations with real numbers.

MA 12.1.2.a Use drawings, words, and symbols to explain the effects of such operations as multiplication and division, and computing positive powers and roots on the magnitude of quantities (e.g., if you take the square root of a number, will the result always be smaller than the original number? (e.g.,))
MA 12.1.2.b Use drawings, words, and symbols to explain that the distance between two numbers on the number line is the absolute value of their difference

MA 12.1.3 Computation: Students will compute fluently and accurately using appropriate strategies and tools.

MA 12.1.3.a Compute accurately with real numbers
MA 12.1.3.b Simplify exponential expressions (e.g., powers of -1, 0, ½,)
MA 12.1.3.c Multiply and divide numbers using scientific notation
MA 12.1.3.d Select, apply, and explain the method of computation when problem solving using real numbers (e.g., models, mental computation, paper-pencil, or technology)

MA 12.1.4 Estimation: Students will estimate and check reasonableness of answers using appropriate strategies and tools.

MA 12.1.4.a Use estimation methods to check the reasonableness of real number computations and decide if the problem calls for an approximation or an exact number (e.g., 10 π (pi) is approximately 31.4, square and cube roots)
MA 12.1.4.b Distinguish relevant from irrelevant information, identify missing information and either find what is needed or make appropriate estimates

MA 12.2 Students will communicate geometric concepts and measurement concepts using multiple representations to reason, solve problems, and make connections within mathematics and across disciplines.

MA 12.2.1 Characteristics: Students will analyze characteristics, properties, and relationships among geometric shapes and objects.

MA12.2.1.a Identify and explain the necessity of and give examples of definitions and theorems
MA 12.2.1.b Analyze properties and relationships among classes of two and three dimensional geometric objects using inductive reasoning and counterexamples
MA 12.2.1 c State and prove geometric theorems using deductive reasoning (e.g., parallel lines with transversals, congruent triangles, similar triangles)
MA 12.2.1.d Apply geometric properties to solve problems (e.g., parallel lines, line transversals, similar triangles, congruent triangles, proportions)
MA 12.2.1.e Identify and apply right triangle relationships (e.g., sine, cosine, tangent, special right triangles, converse of Pythagorean Theorem)

MA 12.2.1.f Recognize that there are geometries, other than Euclidean geometry, in which the parallel postulate is not true
MA12.2.1.g Know the definitions and basic properties of a circle and use them to prove basic theorems and solve problems

MA 12.2.2 Coordinate Geometry: Student will use coordinate geometry to analyze and describe relationships in the coordinate plane.

MA 12.2.2.a Use coordinate geometry to analyze geometric situations (e.g., parallel lines, perpendicular lines, circle equations)
MA 12.2.2.b Apply the midpoint formula
MA 12.2.2.c Apply the distance formula
MA 12.2.2.d Prove special types of triangles and quadrilaterals (e.g., right triangles, isosceles trapezoid, parallelogram, rectangle, square)

MA 12.2.3 Transformations: Students will apply and analyze transformations.

MA 12.2.3.a Explain and justify the effects of simple transformations on the ordered pairs of two-dimensional shapes
MA 12.2.3.b Perform and describe multiple transformations

MA 12.2.4 Spatial Modeling: Students will use visualization, spatial reasoning, and geometric modeling to solve problems.

MA 12.2.4.a Sketch and draw appropriate representations of geometric objects using ruler, protractor, or technology
MA 12.2.4.b Use geometric models to visualize, describe, and solve problems (e.g., find the height of a tree; find the amount of paint needed for a room; scale model)

MA 12.2.5 Measurement: Students will apply the units, systems, and formulas to solve problems.

MA 12.2.5.a Use strategies to find surface area and volume of complex objects
MA 12.2.5.b Apply appropriate units and scales to solve problems involving measurement
MA 12.2.5.c Convert between various units of area and volume, such as square feet to square yards
MA 12.2.5.d Convert equivalent rates (e.g., feet/second to miles/hour)
MA 12.2.5.e Find arc length and area of sectors of a circle
MA 12.2.5.f Determine surface area and volume of three-dimensional objects (e.g., spheres, cones, pyramids)
MA12.2.5.g Know that the effect of a scale factor k on length, area and volume is to multiply each by k, k^2 and k^3, respectively

MA 12.3 Students will communicate algebraic concepts using multiple representations to reason, solve problems, and make connections within mathematics and across disciplines.

MA 12.3.1 Relationships: Students will generalize, represent, and analyze relationships using algebraic symbols.

NON LINEAR FUNCTIONS INCLUDE: QUADRATIC, ABSOLUTE VALUE, SQUARE ROOT, EXPONENTIAL
MA 12.3.1.a Represent, interpret, and analyze functions with graphs, tables, and algebraic notation and convert among these representations (e.g., linear, non-linear)
MA 12.3.1.b Identify domain and range of functions represented in either symbolic or graphical form (e.g., linear, non-linear)
MA 12.3.1.c Identify the slope and intercepts of a linear relationship from an equation or graph
MA 12.3.1.d Identify characteristics of linear and non-linear functions
MA 12.3.1.e Graph linear and non-linear functions
MA 12.3.1.f Compare and analyze the rate of change by using ordered pairs, tables, graphs, and equations
MA 12.3.1.g Graph and interpret linear inequalities
MA 12.3.1.h Represent, interpret, and analyze functions and their inverses
MA 12.3.1.i Determine if a relation is a function

MA 12.3.2 Modeling in Context: Students will model and analyze quantitative relationships.

CONTEXTUALIZED PROBLEM – A MATHEMATICAL SITUATION PLACED IN A PARTICULAR CONTEXT (E.G., USING WORDS, DIAGRAMS, TABLES, DRAWINGS, ETC.)
MA 12.3.2.a Model contextualized problems using various representations (e.g., graphs, tables, one variable equalities, one variable inequalities, linear equations in slope intercept form, inequalities in slope intercept form, system of linear equations with two variables)
MA 12.3.2.b Represent a variety of quantitative relationships using linear equations and one variable inequalities
MA 12.3.2.c Analyze situations to determine the type of algebraic relationship (e.g., linear, nonlinear)
MA 12.3.2.d Model contextualized problems using various representations for non-linear functions (e.g., quadratic, exponential, square root, and absolute value)

MA 12.3.3 Procedures: Students will represent and solve equations and inequalities.
MA 12.3.3.a Explain/apply the reflexive, symmetric, and transitive properties of equality
MA 12.3.3.b Simplify algebraic expressions involving exponents (e.g., $(3x_4)_2$)
MA 12.3.3.c Add and subtract polynomials
MA 12.3.3.d Multiply and divide polynomials (e.g., divide $x_3 – 8$ by $x – 2$, divide $x_4 – 5x_3 – 2x$ by x_2)
MA 12.3.3.e Factor polynomials
MA 12.3.3.f Identify and generate equivalent forms of linear equations
MA 12.3.3.g Solve linear equations and inequalities including absolute value
MA 12.3.3.h Identify and explain the properties used in solving equations and inequalities
MA 12.3.3.i Solve quadratic equations (e.g., factoring, graphing, quadratic formula)
MA 12.3.3.j Add, subtract, and simplify rational expressions
MA 12.3.3.k Multiply, divide, and simplify rational expressions
MA 12.3.3.l Evaluate polynomial and rational expressions and expressions containing radicals and absolute values at specified values of their variables
MA 12.3.3.m Derive and use the formulas for the general term and summation of finite arithmetic and geometric series
MA 12.3.3.n Combine functions by composition, as well as by addition, subtraction, multiplication, and division
MA 12.3.3.o Solve an equation involving several variables for one variable in terms of the others
MA 12.3.3.p Analyze and solve systems of two linear equations in two variables algebraically and graphically

MA 12.4 Students will communicate data analysis/probability concepts using multiple representations to reason, solve problems, and make connections within mathematics and across disciplines.

MA 12.4.1 Display and Analysis: Students will formulate a question and design a survey or an experiment in which data is collected and displayed in a variety of formats, then select and use appropriate statistical methods to analyze the data.

MA 12.4.1.a Interpret data represented by the normal distribution and formulate conclusions
MA 12.4.1.b Compute, identify, and interpret measures of central tendency (mean, median, mode) when provided a graph or data set
MA 12.4.1.c Explain how sample size and transformations of data affect measures of central tendency
MA 12.4.1.d Describe the shape and determine spread (variance, standard deviation) and outliers of a data set
MA 12.4.1.e Explain how statistics are used or misused in the world
MA 12.4.1.f Create scatter plots, analyze patterns, and describe relationships in paired data
MA 12.4.1.g Explain the impact of sampling methods, bias, and the phrasing of questions asked during data collection and the conclusions that can rightfully be made
MA 12.4.1.h Explain the differences between randomized experiment and observational studies

MA 12.4.2 Predictions and Inferences: Students will develop and evaluate inferences to make predictions.
MA 12.4.2.a Compare data sets and evaluate conclusions using graphs and summary statistics
MA 12.4.2.b Support inferences with valid arguments
MA 12.4.2.c Develop linear equations for linear models to predict unobserved outcomes using regression line and correlation coefficient
MA 12.4.2.d Recognize when arguments based on data confuse correlation with causation

MA 12.4.3 Probability: Students will apply and analyze concepts of probability.
MA 12.4.3.a Construct a sample space and a probability distribution
MA 12.4.3.b Identify dependent and independent events and calculate their probabilities
MA 12.4.3.c Use the appropriate counting techniques to determine the probability of an event (e.g., combinations, permutations)
MA 12.4.3.d Analyze events to determine if they are mutually exclusive
MA 12.4.3.e Determine the relative frequency of a specified outcome of an event to estimate the probability of the outcome

SIX TRAIT CURRICULUM

The Johnson County Central Public School District endorses and implements the Six Traits model of writing instruction and assessment. It is an ongoing expectation that all faculty members will implement this mode of language instruction in their classroom.

IDEAS – The writer's primary message, point of story, showing details and clarity.
ORGANIZATION – Putting information into an order that shows direction and purpose.

VOICE – Includes the expression of a writer's personality; an awareness of the intended audience; and a skillful blend of detail, enthusiasm, and knowledge of the topic.
WORD CHOICE – Selecting, identifying, and revising specific descriptive language.
SENTENCE FLUENCY – Smooth writing patterns and rhythmic flow of language.
CONVENTIONS – Using appropriate editing and presentation skills.

Criteria For Evaluation And Assessments:

1. Weekly writing skills (articles, reports and journals).
2. Use district assessment form to implement six traits writing in the classroom.
3. Put visual aide materials up in the classroom to promote the six traits.
4. Administer appropriate rubrics and assessments.

MULTICULTURAL EDUCATION

The instructional program at Johnson County Central Public School incorporates multicultural education in all curriculum areas at all grades. Multicultural education includes, but is not limited to, studies relative to the culture, history, and contributions of African Americans, Hispanic Americans, Native Americans, Asian Americans and European Americans with special emphasis on human relations and sensitivity toward all races.

Criteria For Evaluation And Assessments:

1. A district assessment form is used to document multicultural education in the classroom.
2. An annual status report is provided to the local board of education.

UNIT 1: EXPLORING EXPRESSIONS, EQUATIONS, AND FUNCTIONS

Translate verbal expression into mathematical expressions and vice versa.
Solve problems by looking for a pattern.
Use the order of operations to evaluate real number expressions.
Display and interpret data on a stem-and-leaf plot.
Solve open sentences by performing arithmetic operations.
Recognize and use the properties of identity and equality.
Determine the multiplicative inverse of a number.
Use the distributive property to simplify expressions.
Recognize and use the commutative and associative properties when simplifying expressions.
Interpret graphs in real-world settings, and sketch graphs for given functions.

UNIT 2: EXPLORING RATIONAL NUMBERS

State the coordinate of a point on a number line.
Graph integers on a number line.
Add integers using a number line.
Interpret numerical data from a table
Display and interpret statistical data on a line plot.
Find the absolute value of a number.
Add and subtract integers.
Compare and order rational numbers.
Find a number between two rational numbers.
Add and subtract rational numbers.
Simplify expressions that contain rational numbers.
Multiply and divide rational numbers.
Find square roots.

Classify numbers.
Graph solutions of inequalities on number lines.
Explore problem situations.
Translate verbal sentences and problems into equations or formulas, vice versa.

UNIT 3: SOLVING LINEAR EQUATIONS

Solve equations by using addition and subtraction.
Solve equations by using multiplication and division.
Solve equations involving more than one operation.
Solve problems by working backward.
Find the complement and supplement of an angle.
Find the measure of the third angle of a triangle given the measures of the other two angles.
Solve equations with the variable on both sides.
Solve equations containing grouping symbols.
Solve equations containing grouping symbols.
Solve equations and formulas for a specified variable.
Find and interpret the mean, median, and mode of a set of data.

UNIT 4: USING PROPORTIONAL REASONING

Solve proportions.
Find the unknown measure of the sides of two similar triangles.
Use trigonometric ratios to solve right triangles.
Solve percent problems.
Solve problems involving simple interest.
Solve problems involving percent of increase or decrease.
Solve problems involving discounts or sales tax.
Find the probability of a simple event.
Find the odds of a simple event.
Solve mixture problems.
Solve problems involving uniform motion.
Solve problems involving direct and inverse variation.

UNIT 5: GRAPHING RELATIONS AND FUNCTIONS

Graph ordered pairs on a coordinate plane.
Solve problems by making a table.
Identify the domain, range, and inverse of a relation.
Show relations as sets of ordered pairs, tables, mappings, and graphs.
Determine the range for a given domain.
Graph the solution set for the given domain.
Use a graphing calculator to graph linear relations and functions.
Graph linear equations.
Determine whether a relation is a function.
Find the value of a function for a given element of the domain.
Write equations to represent relations, given some of the solutions for the equation.
Calculate and interpret the range, quartiles, and interquartile range of sets of data.

UNIT 6: ANALYZING LINEAR FUNCTIONS

Find the slope of a line, given the coordinates of two points on the line.
Write linear equations in point-slope form.
Write linear equations in standard form.
Graph and interpret points on a scatter plot.

Draw and write equations for best-fit lines, and make prediction by using those equations.
Determine the x- and y-intercepts of linear graphs from their equations.
Write equations in slope-intercept form.
Write and solve direct variation equations.
Use a graphing calculator to determine whether a group of graphs forms a family.
Graph a line given any linear equation.
Determine if two lines are parallel or perpendicular by their slopes.
Write equations of lines passing through a given point, parallel or perpendicular to the graph of a given equation.
Find the coordinates of the midpoint of a line segment in the coordinate plane.

UNIT 7: SOLVING LINEAR INEQUALITIES

Solve inequalities by using addition and subtraction.
Solve inequalities by using multiplication and division.
Solve linear inequalities involving more than one operation.
Find the solution set for a linear inequality when replacement values are given for the variables.
Solve problems by making a diagram.
Solve compound inequalties and graph their solution sets.
Solve problems that involve compound inequalities.
Find the probability of a compound event.
Solve open sentences involving absolute value and graph the solutions.
Display and interpret data on box-and-whisker plots.
Graph inequalities in the coordinate plane.

UNIT 8: SOLVING SYSTEMS OF LINEAR EQUATIONS AND INEQUALITIES

Solve systems of equations by graphing.
Determine whether a system of equations has one solution, no solutions, or infinitely many solutions by graphing and without graphing.
Use a graphing calculator to solve systems of equations.
Solve systems of equations by the substitution method.
Solve systems of equations by the elimination method using addition or subtraction.
Solve systems of equations by the elimination method using multiplication and addition.
Solve systems of inequalities by graphing.

UNIT 9: EXPLORING POLYNOMIALS

Multiply monomials.
Simplify expressions involving powers of monomials.
Solve problems by looking for a pattern.
Simplify expressions involving quotients of monomials.
Simplify expressions containing negative exponents.
Express numbers in scientific and standard notation.
Find products and quotients of numbers expressed in scientific notation.
Find the degree of a polynomial.
Arrange the terms of a polynomial so that the powers of a variable are in ascending or descending order.
Add and subtract polynomials.
Multiply a polynomial by a monomial.
Simplify expressions involving polynomials.
Use the FOIL method to multiply two binomials.

Multiply any two polynomials by using the distributive property.

Use patterns to find the special products $(a+b)^2$, $(a-b)^2$, and $(a+b)(a-b)$.

UNIT 10: USING FACTORING

Find the prime factorization of integers.
Find the greatest common factor for sets of monomials.
Use the GCF and the distributive property to factor polynomials.
Use grouping techniques to factor polynomials with four or more terms.
Solve problems by using guess and check.
Factor quadratic trinomials.
Identify and factor binomials that are the differences of squares.
Identify and factor perfect square trinomials.
Use the zero product property to solve equations.

UNIT 13: EXPLORING RADICAL EXPRESSIONS AND EQUATIONS

Use the Pythagorean theorem to solve problems.
Simplify square root.

TITLE: **APPLIED GEOMETRY**
GRADE: **$11^{TH} – 12^{TH}$**

Resource Materials Teacher made handouts, Scientific Calculators, Compass, Protractor, Geometer.

Criteria for Evaluation and Assessment: Tests, Quizzes, Daily Homework, School adopted state standard assessments

State Standards

Grades 9-12

12.1 NUMERATION/NUMBER SENSE

12.1.1 By the end of twelfth grade, students will describe and compare the relationships between subsets of real numbers.

The Learner Will:

1.) Identify the real number subsets of natural, whole, integers, rational and irrational.
2.) Classify a number as a member of the following sets: natural, whole, integer, rational, irrational, and real.

12.1.2 By the end of twelfth grade, students will express the equivalent forms of numbers using exponents, radicals, scientific notation, absolute values, fractions, decimals, and percents.

The Learner Will:

1.) Express the equivalent forms of numbers using fractions, decimals, and percents.
2.) Express the equivalent forms of numbers using decimal and scientific notation.
3.) Express the equivalent forms of numbers using exponents and radicals.
4.) Express the equivalent forms of numbers using absolute value and standard form.

12.2 COMPUTATION/ESTIMATION

12.2.1 By the end of twelfth grade, students will solve theoretical and applied problems using numbers in equivalent forms, radicals, exponents, scientific notation, absolute values, fractions, decimals, and percents, ratios and proportions, order of operations, and properties of real numbers.

The Learner Will:

1.) The student will compute equations using numbers in equivalent forms involving exponents, radicals, scientific notation, absolute values, fractions, decimals, and percents, ratios and proportions, order of operations, and properties or real numbers.
2.) The students will solve real life problems using numbers in equivalent forms involving exponents, radicals, scientific notation, absolute value, fractions, decimals, percents, ratios, proportions, order of operation and properties or real numbers.

12.2.2 By the end of twelfth grade, students will justify solutions to mathematical problems.

The Learner Will:

1.) The student will justify the solutions to problems using a variety of methods, such as written explanation, examples, and sketches.

12.2.3 By the end of twelfth grade, students will perform estimations and computations of real numbers mentally, with paper and pencil, and with technology.

The Learner Will:

1.) The student will perform estimation mentally.
2.) The student will perform estimation using paper and pencil.
3.) The student will perform estimation using technology.
4.) The student will perform computations mentally.
5.) The student will perform computations using paper and pencil.
6.) The student will perform computation using technology.

12.3 MEASUREMENT

12.3.1 By the end of twelfth grade, students will select and use measuring units, tools, and/or technology and explain the degree of accuracy and precision of measurements.

The Learner Will:

1.) Select appropriate units to measure objects.
2.) Select appropriate tools to measure objects.
3.) Measure objects using a variety of tools and units.
4.) Measure and draw obtuse, right and acute angles.

12.3.2 By the end of twelfth grade, students will convert between metric and standard units of measurement, given conversion factors.

The Learner Will:

1.) Convert between metric and standard units of measurement to solve problems.
2.) Convert within metric and standard units of measurement.

12.4 GEOMETRY/SPATIAL CONCEPT

12.4.1 By the end of twelfth grade, students will calculate perimeter and area of two-dimensional shapes and surface area and volume of three-dimensional shapes.

The Learner Will:

1.) Calculate perimeter of polygons.
2.) Calculate circumference of circles.
3.) Calculate the area of triangles, rectangles, parallelograms, trapezoids, and circles.
4.) Calculate the surface area of rectangular prisms, pyramids, cylinders and spheres.
5.) Calculate the volume of rectangular prisms, pyramids, cylinders, cones and spheres.

12.4.2 By the end of twelfth grade, students will create geometric models to describe the physical world.

The Learner Will:

1.) Draw isometric and perspective models.
2.) Create two-dimensional models of polygons.

3.) Create three-dimensional models of polyhedra.
4.) Create scale models.

12.4.3 By the end of twelfth grade, students will evaluate characteristics and properties of two- and three-dimensional geometric shapes.

The Learner Will:

1.) Classify and compare attributes of two an three-dimensional figures.
2.) Classify figures in terms of congruence and similarity and apply these relationships.

12.4.4 By the end of twelfth grade, students will apply coordinate geometry to locate and describe objects algebraically.

The Learner Will:

1.) Find the midpoint of a line segment.
2.) Find the distance between two points.
3.) Find the slope of a line.
4.) Determine if lines are parallel or perpendicular by calculating their slopes.
5.) Plot polygons on a coordinate plane.

12.4.5 By the end of twelfth grade, students will apply right triangle trigonometry to find length and angle measures.

The Learner Will:

1.) Identify the opposite side, adjacent side and the hypotenuse of a right triangle with respect to a given angle.
2.) State sine, cosine, and tangent ratios, of a given angle given the three sides.
3.) Use sine, cosine, and tangent to solve problems.

12.4.6 By the end of twelfth grade, students will apply geometric properties to solve problems.

The Learner Will:

1.) Use geometric properties such as congruency, similarity, and right triangles relationships to solve problems.
2.) Apply theorems about special pairs of angles (vertical, complementary, supplementary).
3.) Apply theorems about angles formed by parallel lines and transversals.
4.) Apply exterior and interior angle formulas to polygons.

12.4.7 By the end of twelfth grade, students will apply deductive reasoning to arrive at a conclusion.

The Learner Will:

1.) Write conditional statements, in if-then form.
2.) Use logic to deduce conclusions.
3.) Apply direct, indirect, or conditional proofs.

12.5 <u>DATA ANALYSIS, PROBABILITY, AND STATISTICAL CONCEPTS</u>

12.5.1 By the end of twelfth grade, students will select a sampling technique to gather data, analyze the resulting data and make inferences.

The Learner Will:

1.) Collect, organize, describe, display and interpret data.
2.) Construct of a variety of graphs, tables, and charts used to display data.

3.) Explore date using central tendencies.
4.) Use technology to analyze the data.
5.) Decide which method for displaying date is appropriate.
6.) Find standard deviation and determine quartiles.

12.5.2 By the end of twelfth grade, students will write equations and make predictions from sets of data.

The Learner Will:

1.) Display data in a scatter plot, describe its shape, and estimate ho close the data comes to fitting an equation.
2.) Relate the slope of regression line to the rate of change for the date set.
3.) Determine what the y-intercepts or beginning value indicate about the data.
4.) Determine the validity of predictions make from regression equations.
5.) Write equation based upon the analysis of sets of data and make inference and predictions.

12.5.3 By the end of twelfth grade, students will apply theoretical probability to represent problems and make decisions.

The Learner Will:

1.) The student will interpret theoretical probability to represent problems.
2.) The student will interpret theoretical probability to solve problems.
3.) The student will interpret theoretical probability to make informal decisions.

12.5.4 By the end of twelfth grade, students will evaluate how transformations on data affect the measures of central tendency and variability.

The Learner Will:

1.) The student will compute mean, median, mode, range, outliers, inter-quartile points, maximum and minimum.
2.) The students ill analyze the affect of data transformation on the mean, median, mode, range, outliers, inter-quartile points, maximum and minimum.
3.) The student will compute variance and standard deviation.
4.) The student will analyze the affect of data transformation on the variance and standard deviation.

12.5.5 By the end of twelfth grade, students will interpret data represented by the normal distribution and formulate conclusions.

The Learner Will:

1.) Make conjectures based on the shape of normal distribution curves.

12.5.6 By the end of twelfth grade, students will calculate probabilities of independent events.

The Learner Will:

1.) Compute number of outcomes and probability of common events.
2.) Use the fundamental counting principle.
3.) Use permutations and combinations to solve probability problems.

12.6 <u>ALGEBRAIC CONCEPTS</u>

12.6.1 By the end of twelfth grade, students will graph and interpret algebraic relations and inequalities.

The Learner Will:

1.) Graph equations of horizontal and vertical lines.

2.) Graph linear equations.
3.) Graph linear inequalities.
4.) Graph ordered pairs in a coordinate plane.
5.) Describe a graph by identifying intercepts, slopes, maximum, minimum, increasing, decreasing, parallel and perpendicular, domain and range.
6.) Investigate conic sections through graphing.
7.) Graph quadratic equations and polynomial equations.
8.) Analyze families of graphs using alternation of parent graphs.

12.6.2 By the end of twelfth grade, students will solve problems involving equations and inequalities.

The Learner Will:

1.) Solve linear equations in one variable.
2.) Solve linear inequalities in one variable.
3.) Solve quadratic equations by factorings, completing the square, or quadratic formula.
4.) Solve quadratic inequalities by factoring.
5.) Solve radical, exponential, and logarithmic equations.
6.) Solve polynomial equations and inequalities.
7.) Translate and solve word sentences into equations and inequalities.
8.) Solve equations and inequalities involving absolute value.

12.6.3 By the end of twelfth grade, students will solve problems involving systems of two equations, and systems of two or more inequalities.

The Learner Will:

1.) Solve systems by graphing, substitution, elimination, matrices, and/or graphing calculator.
2.) Solve real life problems using systems of equations.
3.) Solve systems of inequalities.
4.) Solve systems of second degree equations.

12.6.4 By the end of twelfth grade, students will solve problems using patterns and functions.

The Learner Will:

1.) Apply direct and indirect variations.
2.) Use patterns to solve basic sequences.
3.) Perform operations on functions and determine the domains of the resulting functions.
4.) Find the inverse of a function, if the inverse exists.
5.) Evaluate functions.
6.) Evaluate composite functions.
7.) Recognize patterns of exponential growth and decay and their significance to real-life situations.
8.) Find the domain, range, zeros, maximum and minimum of a function.
9.) Model situations using algebraic functions.
10.) Define a function by tables and graphs.

Six Trait Curriculum

The Johnson County Central School District endorses and implements the Six Traits model of writing instruction and assessment. It is an ongoing expectation that all faculty members will implement this mode of language instruction in their classroom.

Ideas – The writer's primary message, point of story, showing details and clarity.
Organization – Putting information into an order that shows direction and purpose.

Voice – Includes the expression of a writer's personality; an awareness of the intended audience; and a skillful bland of detail, enthusiasm, and knowledge of the topic.
Word Choice – Selecting, identifying, and revising specific descriptive language.
Sentence Fluency – Smooth writing patterns and rhythmic flow of language.
Conventions – Using appropriate editing and presentation skills.

Criteria for evaluation and assessments:

1.) Weekly writing skills
2.) Use district assessment form to implement six traits writing in the classroom
3.) Put visual aid materials up in the classroom to promote the six traits.
4.) Administer appropriate rubrics and assessments

Multicultural Education

The instructional program at Johnson County Central Schools incorporates multicultural education in the all curriculum areas at all grades. Multicultural education includes, but is not limited to, studies relative to the culture, history, and contributions of African Americans, Hispanic Americans, Native Americans, Asian Americans, and European Americans with special emphasis on human relations and sensitivity toward all races.

Criteria for evaluation and assessments:

1.) A district assessment form is used to document multicultural education in the classroom.
2.) An annual status report is provided to the local board of education.

Chapter 1: Points, Lines, Planes and Angles

1.) Use the terms equidistant, point, and line.
2.) Use the undefined terms point, line, and plane.
3.) Draw representations of points, lines, and planes.
4.) Use the terms collinear, coplanar, and intersection.
5.) Use symbols for lines, segments, rays, and distances.
6.) Name angles and find their measures.

Chapter 2: Deductive Reasoning

1.) Apply the definitions of complementary and supplementary angles.
2.) State and use the theorem about vertical angles.
3.) Apply the definition and theorems about perpendicular lines.

Chapter 3: Parallel Lines and Planes

1.) Distinguish between intersecting lines, parallel lines, and skew lines.
2.) Identify the angles formed when two lines are cut by a transversal.
3.) Classify triangles according to sides and to angles.
4.) State and apply the theorem about the sum of the measures of the angles of a triangle.
5.) State and apply the theorem about the measure of an exterior angle of a triangle.
6.) Recognize and name regular polygons.
7.) Find the measures of interior angles and exterior angles of convex polygons.

Chapter 4: Congruent Triangles

1.) Identify the corresponding parts of congruent figures.
2.) Identify why triangles are congruent by using SSS, SAS, ASA postulates.
3.) Identify why triangles are congruent by using AAS, HL postulates.

Chapter 5: Quadrilaterals

1.) Apply the definition of a parallelogram and the theorems about a parallelogram.

2.) Apply the definitions and identify the special properties of a rectangle, a rhombus, and a square.
3.) Determine when a parallelogram is a rectangles, rhombus, or square.
4.) Apply the definitions and identify the properties of a trapezoid and an isosceles trapezoid.

Chapter 7: Similar Polygons

1.) Express a ratio in simplest form.
2.) Solve for an unknown term in a given proportion.
3.) Express a given proportion in an equivalent form.
4.) State and apply the properties of similar polygons.

Chapter 8: Right Triangles

1.) State and apply the Pythagorean Theorem. .
2.) Determine the lengths of two sides of a 45-45-90 or a 30-60-90 triangle when the length of the third side is known.
3.) Define the tangent ratio for an acute triangle.
4.) Solve right triangle problems by using the tangent ratio.
5.) Define the sine and cosine ratios for an acute angle.
6.) Solve right triangles problems by sing the sine and cosine ratios.
7.) Solve right triangle problems by correct selection and use the tangent, sine, and cosine ratios.

Chapter 9: Circles

1.) Define a circle and terms related to a circle.
2.) Recognize inscribed polygons and circumscribed circles.
3.) Define and apply properties of arcs and central angles.
4.) Solve problems involving inscribed angles.
5.) Solve problems involving angles formed by chords, secants, and tangents.
6.) Solve problems involving angles formed by chords, secants, and tangents.

Chapter 11: Areas of Plane Figures

1.) Know and use the formula for the area of a rectangle.
2.) Know and use the formulas for the areas of a parallelogram, triangle, and rhombus.
3.) Know and use the formula for the area of a trapezoid.
4.) Know and use the formula for the area of regular polygons.
5.) Know and use the formulas for the circumferences and areas of a circle.
6.) Know and use the formulas for arc lengths and the area of sectors of a circle.
7.) Understand and apply the relationship between scale factors, perimeters, and areas of similar figures.

Chapter 12: Areas and Volumes of Solids

1.) Identify parts of a prism.
2.) Find the lateral areas, total areas, and volumes of right prisms.
3.) Identify parts of pyramids.
4.) Find the lateral areas, total areas, and volumes of regular pyramids.
5.) Find the lateral areas, total areas, and volumes of right cylinders, and right cones.
6.) Find the area and the volume of a sphere.

TITLE: GEOMETRY
GRADE: 9^{TH}-12^{TH}

RESOURCE MATERIALS: Textbook: Geometry Published by Houghton Mifflin copyright 2000. Teacher made handouts, scientific calculators, compass, protractor, geometer.

CRITERIA FOR EVALUATION AND ASSESSMENT: Tests, quizzes, daily homework, school adopted state standard assessments.

STATE STANDARDS:

MA 12.1 Students will communicate number sense concepts using multiple representations to reason, solve problems, and make connections within mathematics and across disciplines.

MA 12.1.1 Number System: Students will represent and show relationships among complex numbers.

MA 12.1.1.a Demonstrate multiple equivalent forms of irrational numbers (e.g.,)
MA 12.1.1.b Compare, contrast and apply the properties of numbers and the real number system, including rational, irrational, imaginary, and complex numbers

MA 12.1.2 Operations: Students will demonstrate the meaning and effects of arithmetic operations with real numbers.

MA 12.1.2.a Use drawings, words, and symbols to explain the effects of such operations as multiplication and division, and computing positive powers and roots on the magnitude of quantities (e.g., if you take the square root of a number, will the result always be smaller than the original number? (e.g.,))
MA 12.1.2.b Use drawings, words, and symbols to explain that the distance between two numbers on the number line is the absolute value of their difference

MA 12.1.3 Computation: Students will compute fluently and accurately using appropriate strategies and tools.

MA 12.1.3.a Compute accurately with real numbers
MA 12.1.3.b Simplify exponential expressions (e.g., powers of -1, 0, ½,)
MA 12.1.3.c Multiply and divide numbers using scientific notation
MA 12.1.3.d Select, apply, and explain the method of computation when problem solving using real numbers (e.g., models, mental computation, paper-pencil, or technology)

MA 12.1.4 Estimation: Students will estimate and check reasonableness of answers using appropriate strategies and tools.

MA 12.1.4.a Use estimation methods to check the reasonableness of real number computations and decide if the problem calls for an approximation or an exact number (e.g., 10 π (pi) is approximately 31.4, square and cube roots)
MA 12.1.4.b Distinguish relevant from irrelevant information, identify missing information and either find what is needed or make appropriate estimates

MA 12.2 Students will communicate geometric concepts and measurement concepts using multiple representations to reason, solve problems, and make connections within mathematics and across disciplines.

MA 12.2.1 Characteristics: Students will analyze characteristics, properties, and relationships among geometric shapes and objects.

MA12.2.1.a Identify and explain the necessity of and give examples of definitions and theorems
MA 12.2.1.b Analyze properties and relationships among classes of two and three dimensional geometric objects using inductive reasoning and counterexamples
MA 12.2.1 c State and prove geometric theorems using deductive reasoning (e.g., parallel lines with transversals, congruent triangles, similar triangles)
MA 12.2.1.d Apply geometric properties to solve problems (e.g., parallel lines, line transversals, similar triangles, congruent triangles, proportions)
MA 12.2.1.e Identify and apply right triangle relationships (e.g., sine, cosine, tangent, special right triangles, converse of Pythagorean Theorem)
MA 12.2.1.f Recognize that there are geometries, other than Euclidean geometry, in which the parallel postulate is not true

MA12.2.1.g Know the definitions and basic properties of a circle and use them to prove basic theorems and solve problems

MA 12.2.2 Coordinate Geometry: Student will use coordinate geometry to analyze and describe relationships in the coordinate plane.

MA 12.2.2.a Use coordinate geometry to analyze geometric situations (e.g., parallel lines, perpendicular lines, circle equations)
MA 12.2.2.b Apply the midpoint formula
MA 12.2.2.c Apply the distance formula
MA 12.2.2.d Prove special types of triangles and quadrilaterals (e.g., right triangles, isosceles trapezoid, parallelogram, rectangle, square)

MA 12.2.3 Transformations: Students will apply and analyze transformations.

MA 12.2.3.a Explain and justify the effects of simple transformations on the ordered pairs of two-dimensional shapes
MA 12.2.3.b Perform and describe multiple transformations

MA 12.2.4 Spatial Modeling: Students will use visualization, spatial reasoning, and geometric modeling to solve problems.

MA 12.2.4.a Sketch and draw appropriate representations of geometric objects using ruler, protractor, or technology
MA 12.2.4.b Use geometric models to visualize, describe, and solve problems (e.g., find the height of a tree; find the amount of paint needed for a room; scale model)

MA 12.2.5 Measurement: Students will apply the units, systems, and formulas to solve problems.

MA 12.2.5.a Use strategies to find surface area and volume of complex objects
MA 12.2.5.b Apply appropriate units and scales to solve problems involving measurement
MA 12.2.5.c Convert between various units of area and volume, such as square feet to square yards
MA 12.2.5.d Convert equivalent rates (e.g., feet/second to miles/hour)
MA 12.2.5.e Find arc length and area of sectors of a circle
MA 12.2.5.f Determine surface area and volume of three-dimensional objects (e.g., spheres, cones, pyramids)
MA12.2.5.g Know that the effect of a scale factor k on length, area and volume is to multiply each by k, k^2 and k^3, respectively

MA 12.3 Students will communicate algebraic concepts using multiple representations to reason, solve problems, and make connections within mathematics and across disciplines.

MA 12.3.1 Relationships: Students will generalize, represent, and analyze relationships using algebraic symbols.

NON LINEAR FUNCTIONS INCLUDE: QUADRATIC, ABSOLUTE VALUE, SQUARE ROOT, EXPONENTIAL
MA 12.3.1.a Represent, interpret, and analyze functions with graphs, tables, and algebraic notation and convert among these representations (e.g., linear, non-linear)
MA 12.3.1.b Identify domain and range of functions represented in either symbolic or graphical form (e.g., linear, non-linear)
MA 12.3.1.c Identify the slope and intercepts of a linear relationship from an equation or graph
MA 12.3.1.d Identify characteristics of linear and non-linear functions
MA 12.3.1.e Graph linear and non-linear functions
MA 12.3.1.f Compare and analyze the rate of change by using ordered pairs, tables, graphs, and equations
MA 12.3.1.g Graph and interpret linear inequalities
MA 12.3.1.h Represent, interpret, and analyze functions and their inverses
MA 12.3.1.i Determine if a relation is a function

MA 12.3.2 Modeling in Context: Students will model and analyze quantitative relationships.

CONTEXTUALIZED PROBLEM – A MATHEMATICAL SITUATION PLACED IN A PARTICULAR CONTEXT (E.G., USING WORDS, DIAGRAMS, TABLES, DRAWINGS, ETC.)
MA 12.3.2.a Model contextualized problems using various representations (e.g., graphs, tables, one variable equalities, one variable inequalities, linear equations in slope intercept form, inequalities in slope intercept form, system of linear equations with two variables)
MA 12.3.2.b Represent a variety of quantitative relationships using linear equations and one variable inequalities
MA 12.3.2.c Analyze situations to determine the type of algebraic relationship (e.g., linear, nonlinear)
MA 12.3.2.d Model contextualized problems using various representations for non-linear functions (e.g., quadratic, exponential, square root, and absolute value)

MA 12.3.3 Procedures: Students will represent and solve equations and inequalities.

MA 12.3.3.a Explain/apply the reflexive, symmetric, and transitive properties of equality
MA 12.3.3.b Simplify algebraic expressions involving exponents (e.g., $(3x_4)_2$)
MA 12.3.3.c Add and subtract polynomials
MA 12.3.3.d Multiply and divide polynomials (e.g., divide $x_3 – 8$ by $x – 2$, divide $x_4 – 5x_3 – 2x$ by x_2)
MA 12.3.3.e Factor polynomials
MA 12.3.3.f Identify and generate equivalent forms of linear equations
MA 12.3.3.g Solve linear equations and inequalities including absolute value
MA 12.3.3.h Identify and explain the properties used in solving equations and inequalities
MA 12.3.3.i Solve quadratic equations (e.g., factoring, graphing, quadratic formula)
MA 12.3.3.j Add, subtract, and simplify rational expressions
MA 12.3.3.k Multiply, divide, and simplify rational expressions
MA 12.3.3.l Evaluate polynomial and rational expressions and expressions containing radicals and absolute values at specified values of their variables
MA 12.3.3.m Derive and use the formulas for the general term and summation of finite arithmetic and geometric series
MA 12.3.3.n Combine functions by composition, as well as by addition, subtraction, multiplication, and division
MA 12.3.3.o Solve an equation involving several variables for one variable in terms of the others
MA 12.3.3.p Analyze and solve systems of two linear equations in two variables algebraically and graphically

MA 12.4 Students will communicate data analysis/probability concepts using multiple representations to reason, solve problems, and make connections within mathematics and across disciplines.

MA 12.4.1 Display and Analysis: Students will formulate a question and design a survey or an experiment in which data is collected and displayed in a variety of formats, then select and use appropriate statistical methods to analyze the data.

MA 12.4.1.a Interpret data represented by the normal distribution and formulate conclusions
MA 12.4.1.b Compute, identify, and interpret measures of central tendency (mean, median, mode) when provided a graph or data set
MA 12.4.1.c Explain how sample size and transformations of data affect measures of central tendency
MA 12.4.1.d Describe the shape and determine spread (variance, standard deviation) and outliers of a data set
MA 12.4.1.e Explain how statistics are used or misused in the world
MA 12.4.1.f Create scatter plots, analyze patterns, and describe relationships in paired data
MA 12.4.1.g Explain the impact of sampling methods, bias, and the phrasing of questions asked during data collection and the conclusions that can rightfully be made
MA 12.4.1.h Explain the differences between randomized experiment and observational studies

MA 12.4.2 Predictions and Inferences: Students will develop and evaluate inferences to make predictions.

MA 12.4.2.a Compare data sets and evaluate conclusions using graphs and summary statistics
MA 12.4.2.b Support inferences with valid arguments
MA 12.4.2.c Develop linear equations for linear models to predict unobserved outcomes using regression line and correlation coefficient
MA 12.4.2.d Recognize when arguments based on data confuse correlation with causation

MA 12.4.3 Probability: Students will apply and analyze concepts of probability.

MA 12.4.3.a Construct a sample space and a probability distribution
MA 12.4.3.b Identify dependent and independent events and calculate their probabilities
MA 12.4.3.c Use the appropriate counting techniques to determine the probability of an event (e.g., combinations, permutations)
MA 12.4.3.d Analyze events to determine if they are mutually exclusive
MA 12.4.3.e Determine the relative frequency of a specified outcome of an event to estimate the probability of the outcome

SIX TRAIT CURRICULUM

The Johnson County Central Public School District endorses and implements the Six Traits model of writing instruction and assessment. It is an ongoing expectation that all faculty members will implement this mode of language instruction in their classroom.

IDEAS – The writer's primary message, point of story, showing details and clarity.
ORGANIZATION – Putting information into an order that shows direction and purpose.

VOICE – Includes the expression of a writer's personality; an awareness of the intended audience; and a skillful blend of detail, enthusiasm, and knowledge of the topic.
WORD CHOICE – Selecting, identifying, and revising specific descriptive language.
SENTENCE FLUENCY – Smooth writing patterns and rhythmic flow of language.
CONVENTIONS – Using appropriate editing and presentation skills.

Criteria For Evaluation And Assessments:

1. Weekly writing skills.
2. Use district assessment form to implement six traits writing in the classroom.
3. Put visual aide materials up in the classroom to promote the six traits.
4. Administer appropriate rubrics and assessments.

MULTICULTURAL EDUCATION

The instructional program at Johnson County Central Public Schools incorporates multicultural education in all curriculum areas at all grades. Multicultural education includes, but is not limited to, studies relative to the culture, history, and contributions of African Americans, Hispanic Americans, Native Americans, Asian Americans and European Americans with special emphasis on human relations and sensitivity toward all races.

Criteria For Evaluation And Assessments:

1. A district assessment form is used to document multicultural education in the classroom.
2. An annual status report is provided to the local board of education.

UNIT 1: POINTS, LINES, PLANES AND ANGLES

1. Use the terms equidistant, point, and line.
2. Use the undefined terms point, line, and plane.
3. Draw representations of points, lines, and planes.
4. Use the terms collinear, coplanar, and intersection.
5. Use symbols for lines, segments, rays, and distances.
6. Name angles and find their measures.
7. Use postulates and theorems relating points, lines, and planes.

UNIT 2: DEDUCTIVE REASONING

1. Recognize the hypothesis and the conclusion of an if-then statement.
2. State the converse of an if-then statement.
3. Use a counterexample to disprove an if-then statement.
1. Use properties from algebra and properties of congruence in proofs.
5. Use the Midpoint Theorem and the Angle Bisector Theorem.
6. Know the kinds of reasons that can be used in proofs.
7. Apply the definitions of complementary and supplementary angles.
8. State and use the theorem about vertical angles.
9. Apply the definition and theorems about perpendicular lines.
10. State and apply the theorems about angles supplementary to, or complementary to, congruent angles.
11. Plan proofs and then write them in two-column form.

UNIT 3: PARALLEL LINES AND PLANES

1. Distinguish between intersecting lines, parallel lines, and skew lines.
2. Identify the angles formed when two lines are cut by a transversal.
3. State and apply a postulate and theorems about parallel lines.

4. Classify triangles according to sides and to angles.
5. State and apply the theorem about the sum of the measures of the angles of a triangle.
6. State and apply the theorem about the measure of an exterior angle of a triangle.
7. Recognize and name regular polygons.
8. Find the measures of interior angles and exterior angles of convex polygons.

UNIT 4: CONGRUENT TRIANGLES

1. Identify the corresponding parts of congruent figures.
2. Prove two triangles congruent by using SSS, SAS, ASA postulates.
3. Deduce information about segments and angles after proving that two triangles are congruent.
4. Apply the theorems about isosceles triangles.
5. Use the AAS and HL theorems to prove two triangles congruent.
6. Apply the definition of the median and the altitude of a triangle and the perpendicular bisector of a segment.

UNIT 5: QUADRILATERALS

1. Apply the definition of a parallelogram and the theorems about a parallelogram.
2. Prove that certain quadrilaterals are parallelograms.
3. Apply theorems about parallel lines.
4. Apply the midpoint theorem for triangles.
5. Apply the definitions and identify the special properties of a rectangle, a rhombus, and a square.
6. Determine when a parallelogram is a rectangles, rhombus, or square.
7. Apply the definitions and identify the properties of a trapezoid and an isosceles trapezoid.

UNIT 6: INEQUALITIES IN GEOMETRY

1. Apply properties of inequality to positive numbers, lengths of segments, and measures of angles.
2. State and use the Exterior Angles Inequality Theorem.
3. State the converse and inverse of an if-then statement.
4. Draw correct conclusions from given statements.
5. State and apply the inequality theorems for one triangle.
6. State and apply the inequality theorems for two triangles.

UNIT 7: SIMILAR POLYGONS

1. Express a ratio in simplest form.
2. Solve for an unknown term in a given proportion.
3. Express a given proportion in an equivalent form.
4. State and apply the properties of similar polygons.
5. Use the AA Postulate to prove triangles similar.
6. Use similar triangles to deduce information about segments of angles.
7. Use SAS and SSS Similarity Theorems to prove triangles similar.
8. Apply the Triangle Proportionality Theorem.
9. State and apply the Triangle Angle-Bisector Theorem.

UNIT 8: RIGHT TRIANGLES

1. Determine the geometric mean between two numbers.
2. State and apply the Pythagorean Theorem.
3. State and apply the converse of the Pythagorean Theorem and related theorems about obtuse and acute triangles.

4. Determine the lengths of two sides of a 45-45-90 or a 30-6-90 triangle when the length of the third side is known.
5. Define the tangent ratio for an acute triangle.
6. Solve right triangle problems by using the tangent ratio.
7. Define the sine and cosine ratios for an acute angle.
8. Solve right triangles problems by sing the sine and cosine ratios.
9. Solve right triangle problems by correct selection and use the tangent, sine, and cosine ratios.

UNIT 9: CIRCLES

1. Define a circle and terms related to a circle.
2. Recognize inscribed polygons and circumscribed circles.
3. Apply theorems that relate tangents and radii.
4. Define and apply properties of arcs and central angles.
5. Apply theorems about the chords of a circle.
6. Solve problems and prove statements involving inscribed angles.
7. Solve problems and prove statements involving angles formed by chords, secants, and tangents.
8. Solve problems and prove statements involving angles formed by chords, secants, and tangents.
9. Solve problems involving lengths of chords, secant segments, and tangent segments.

UNIT 10: CONSTRUCTIONS

1. Perform basic constructions using compass and straight edge.
2. State and apply theorems involving concurrent lines.

UNIT 11: AREAS OF PLANE FIGURES

1. Know and use the formula for the area of a rectangle.
2. Know and use the formulas for the areas of a parallelogram, triangle, and rhombus.
3. Know and use the formula for the area of a trapezoid.
4. Know and use the formula for the area of regular polygons.
5. Know and use the formulas for the circumferences and areas of a circle.
6. Know and use the formulas for arc lengths and the area of sectors of a circle.
7. Find the ratio of the areas of two triangles.
8. Understand and apply the relationship between scale factors, perimeters, and areas of similar figures.
9. Use areas to solve problems involving geometric probability.

UNIT 12: AREAS AND VOLUMES OF SOLIDS

1. Indentify parts of a prism
2. Find the lateral areas, total areas, and volumes of right prisms.
3. Identify parts of pyramids.
4. Find the lateral areas, total areas, and volumes of regular pyramids.
5. Find the lateral areas, total areas, and volumes of right cylinders, and right cones.
6. Find the area and the volume of a sphere.
7. State and apply the properties of similar solids.

UNIT 13: COORDINATE GEOMETRY

1. State and apply the distance formula.
2. State and apply the general equation of a circle.
3. State and apply the slope formula.
4. Determine whether two lines are parallel, perpendicular, or neither.

5. State and apply the midpoint formula.

UNIT 14: TRANSFORMATIONS

1. Locate images of figures by reflection.
2. Locate images of figures by translation and glide reflection.
3. Locate images of figures by rotation.
4. Describe the symmetry of figures and solids.

TITLE: **ADVANCE ALGEBRA**
GRADES: **9^{th} – 12^{th}**

RESOURCE MATERIALS: Textbook: Algebra 2 (Glencoe 2001), TI-83 Plus Graphing Calculators

CRITERIA FOR EVALUATION AND ASSESSMENT: Daily textbook/worksheet assignments, short assignment quizzes, weekly quizzes, unit exams, and state standard assessments.

STATE STANDARDS:

MA 12.1 Students will communicate number sense concepts using multiple representations to reason, solve problems, and make connections within mathematics and across disciplines.

MA 12.1.1 Number System: Students will represent and show relationships among complex numbers.

MA 12.1.1.a Demonstrate multiple equivalent forms of irrational numbers (e.g.,)
MA 12.1.1.b Compare, contrast and apply the properties of numbers and the real number system, including rational, irrational, imaginary, and complex numbers

MA 12.1.2 Operations: Students will demonstrate the meaning and effects of arithmetic operations with real numbers.

MA 12.1.2.a Use drawings, words, and symbols to explain the effects of such operations as multiplication and division, and computing positive powers and roots on the magnitude of quantities (e.g., if you take the square root of a number, will the result always be smaller than the original number? (e.g.,))
MA 12.1.2.b Use drawings, words, and symbols to explain that the distance between two numbers on the number line is the absolute value of their difference

MA 12.1.3 Computation: Students will compute fluently and accurately using appropriate strategies and tools.

MA 12.1.3.a Compute accurately with real numbers
MA 12.1.3.b Simplify exponential expressions (e.g., powers of -1, 0, ½,)
MA 12.1.3.c Multiply and divide numbers using scientific notation
MA 12.1.3.d Select, apply, and explain the method of computation when problem solving using real numbers (e.g., models, mental computation, paper-pencil, or technology)

MA 12.1.4 Estimation: Students will estimate and check reasonableness of answers using appropriate strategies and tools.

MA 12.1.4.a Use estimation methods to check the reasonableness of real number computations and decide if the problem calls for an approximation or an exact number (e.g., 10 π (pi) is approximately 31.4, square and cube roots)
MA 12.1.4.b Distinguish relevant from irrelevant information, identify missing information and either find what is needed or make appropriate estimates

MA 12.2 Students will communicate geometric concepts and measurement concepts using multiple representations to reason, solve problems, and make connections within mathematics and across disciplines.

MA 12.2.1 Characteristics: Students will analyze characteristics, properties, and relationships among geometric shapes and objects.

MA12.2.1.a Identify and explain the necessity of and give examples of definitions and theorems
MA 12.2.1.b Analyze properties and relationships among classes of two and three dimensional geometric objects using inductive reasoning and counterexamples
MA 12.2.1 c State and prove geometric theorems using deductive reasoning (e.g., parallel lines with transversals, congruent triangles, similar triangles)
MA 12.2.1.d Apply geometric properties to solve problems (e.g., parallel lines, line transversals, similar triangles, congruent triangles, proportions)
MA 12.2.1.e Identify and apply right triangle relationships (e.g., sine, cosine, tangent, special right triangles, converse of Pythagorean Theorem)

MA 12.2.1.f Recognize that there are geometries, other than Euclidean geometry, in which the parallel postulate is not true
MA12.2.1.g Know the definitions and basic properties of a circle and use them to prove basic theorems and solve problems

MA 12.2.2 Coordinate Geometry: Student will use coordinate geometry to analyze and describe relationships in the coordinate plane.

MA 12.2.2.a Use coordinate geometry to analyze geometric situations (e.g., parallel lines, perpendicular lines, circle equations)
MA 12.2.2.b Apply the midpoint formula
MA 12.2.2.c Apply the distance formula
MA 12.2.2.d Prove special types of triangles and quadrilaterals (e.g., right triangles, isosceles trapezoid, parallelogram, rectangle, square)

MA 12.2.3 Transformations: Students will apply and analyze transformations.

MA 12.2.3.a Explain and justify the effects of simple transformations on the ordered pairs of two-dimensional shapes
MA 12.2.3.b Perform and describe multiple transformations

MA 12.2.4 Spatial Modeling: Students will use visualization, spatial reasoning, and geometric modeling to solve problems.

MA 12.2.4.a Sketch and draw appropriate representations of geometric objects using ruler, protractor, or technology
MA 12.2.4.b Use geometric models to visualize, describe, and solve problems (e.g., find the height of a tree; find the amount of paint needed for a room; scale model)

MA 12.2.5 Measurement: Students will apply the units, systems, and formulas to solve problems.

MA 12.2.5.a Use strategies to find surface area and volume of complex objects
MA 12.2.5.b Apply appropriate units and scales to solve problems involving measurement
MA 12.2.5.c Convert between various units of area and volume, such as square feet to square yards
MA 12.2.5.d Convert equivalent rates (e.g., feet/second to miles/hour)
MA 12.2.5.e Find arc length and area of sectors of a circle
MA 12.2.5.f Determine surface area and volume of three-dimensional objects (e.g., spheres, cones, pyramids)
MA12.2.5.g Know that the effect of a scale factor k on length, area and volume is to multiply each by k, k^2 and k^3, respectively

MA 12.3 Students will communicate algebraic concepts using multiple representations to reason, solve problems, and make connections within mathematics and across disciplines.

MA 12.3.1 Relationships: Students will generalize, represent, and analyze relationships using algebraic symbols.

NON LINEAR FUNCTIONS INCLUDE: QUADRATIC, ABSOLUTE VALUE, SQUARE ROOT, EXPONENTIAL
MA 12.3.1.a Represent, interpret, and analyze functions with graphs, tables, and algebraic notation and convert among these representations (e.g., linear, non-linear)
MA 12.3.1.b Identify domain and range of functions represented in either symbolic or graphical form (e.g., linear, non-linear)
MA 12.3.1.c Identify the slope and intercepts of a linear relationship from an equation or graph
MA 12.3.1.d Identify characteristics of linear and non-linear functions
MA 12.3.1.e Graph linear and non-linear functions
MA 12.3.1.f Compare and analyze the rate of change by using ordered pairs, tables, graphs, and equations
MA 12.3.1.g Graph and interpret linear inequalities
MA 12.3.1.h Represent, interpret, and analyze functions and their inverses
MA 12.3.1.i Determine if a relation is a function

MA 12.3.2 Modeling in Context: Students will model and analyze quantitative relationships.

CONTEXTUALIZED PROBLEM – A MATHEMATICAL SITUATION PLACED IN A PARTICULAR CONTEXT (E.G., USING WORDS, DIAGRAMS, TABLES, DRAWINGS, ETC.)
MA 12.3.2.a Model contextualized problems using various representations (e.g., graphs, tables, one variable equalities, one variable inequalities, linear equations in slope intercept form, inequalities in slope intercept form, system of linear equations with two variables)
MA 12.3.2.b Represent a variety of quantitative relationships using linear equations and one variable inequalities
MA 12.3.2.c Analyze situations to determine the type of algebraic relationship (e.g., linear, nonlinear)
MA 12.3.2.d Model contextualized problems using various representations for non-linear functions (e.g., quadratic, exponential, square root, and absolute value)

MA 12.3.3 Procedures: Students will represent and solve equations and inequalities.
MA 12.3.3.a Explain/apply the reflexive, symmetric, and transitive properties of equality
MA 12.3.3.b Simplify algebraic expressions involving exponents (e.g., $(3x_4)_2$)
MA 12.3.3.c Add and subtract polynomials
MA 12.3.3.d Multiply and divide polynomials (e.g., divide $x_3 – 8$ by $x – 2$, divide $x_4 – 5x_3 – 2x$ by x_2)
MA 12.3.3.e Factor polynomials
MA 12.3.3.f Identify and generate equivalent forms of linear equations
MA 12.3.3.g Solve linear equations and inequalities including absolute value
MA 12.3.3.h Identify and explain the properties used in solving equations and inequalities
MA 12.3.3.i Solve quadratic equations (e.g., factoring, graphing, quadratic formula)
MA 12.3.3.j Add, subtract, and simplify rational expressions
MA 12.3.3.k Multiply, divide, and simplify rational expressions
MA 12.3.3.l Evaluate polynomial and rational expressions and expressions containing radicals and absolute values at specified values of their variables
MA 12.3.3.m Derive and use the formulas for the general term and summation of finite arithmetic and geometric series
MA 12.3.3.n Combine functions by composition, as well as by addition, subtraction, multiplication, and division
MA 12.3.3.o Solve an equation involving several variables for one variable in terms of the others
MA 12.3.3.p Analyze and solve systems of two linear equations in two variables algebraically and graphically

MA 12.4 Students will communicate data analysis/probability concepts using multiple representations to reason, solve problems, and make connections within mathematics and across disciplines.

MA 12.4.1 Display and Analysis: Students will formulate a question and design a survey or an experiment in which data is collected and displayed in a variety of formats, then select and use appropriate statistical methods to analyze the data.

MA 12.4.1.a Interpret data represented by the normal distribution and formulate conclusions
MA 12.4.1.b Compute, identify, and interpret measures of central tendency (mean, median, mode) when provided a graph or data set
MA 12.4.1.c Explain how sample size and transformations of data affect measures of central tendency
MA 12.4.1.d Describe the shape and determine spread (variance, standard deviation) and outliers of a data set
MA 12.4.1.e Explain how statistics are used or misused in the world
MA 12.4.1.f Create scatter plots, analyze patterns, and describe relationships in paired data
MA 12.4.1.g Explain the impact of sampling methods, bias, and the phrasing of questions asked during data collection and the conclusions that can rightfully be made
MA 12.4.1.h Explain the differences between randomized experiment and observational studies

MA 12.4.2 Predictions and Inferences: Students will develop and evaluate inferences to make predictions.
MA 12.4.2.a Compare data sets and evaluate conclusions using graphs and summary statistics
MA 12.4.2.b Support inferences with valid arguments
MA 12.4.2.c Develop linear equations for linear models to predict unobserved outcomes using regression line and correlation coefficient
MA 12.4.2.d Recognize when arguments based on data confuse correlation with causation

MA 12.4.3 Probability: Students will apply and analyze concepts of probability.
MA 12.4.3.a Construct a sample space and a probability distribution
MA 12.4.3.b Identify dependent and independent events and calculate their probabilities
MA 12.4.3.c Use the appropriate counting techniques to determine the probability of an event (e.g., combinations, permutations)
MA 12.4.3.d Analyze events to determine if they are mutually exclusive
MA 12.4.3.e Determine the relative frequency of a specified outcome of an event to estimate the probability of the outcome

SIX TRAIT CURRICULUM

The Johnson County Central Public School District endorses and implements the Six Traits model of writing instruction and assessment. It is an ongoing expectation that all faculty members will implement this mode of language instruction in their classroom.

IDEAS – The writer's primary message, point of story, showing details and clarity.
ORGANIZATION – Putting information into an order that shows direction and purpose.

VOICE – Includes the expression of a writer's personality; an awareness of the intended audience; and a skillful blend of detail, enthusiasm, and knowledge of the topic.
WORD CHOICE – Selecting, identifying, and revising specific descriptive language.
SENTENCE FLUENCY – Smooth writing patterns and rhythmic flow of language.
CONVENTIONS – Using appropriate editing and presentation skills.

Criteria For Evaluation And Assessments:

1. Weekly writing skills.
2. Use district assessment form to implement six traits writing in the classroom.
3. Put visual aide materials up in the classroom to promote the six traits.
4. Administer appropriate rubrics and assessments.

MULTICULTURAL EDUCATION

The instructional program at Johnson County Central Public Schools incorporates multicultural education in all curriculum areas at all grades. Multicultural education includes, but is not limited to, studies relative to the culture, history, and contributions of African Americans, Hispanic Americans, Native Americans, Asian Americans and European Americans with special emphasis on human relations and sensitivity toward all races.

Criteria For Evaluation And Assessments:

1. A district assessment form is used to document multicultural education in the classroom.
2. An annual status report is provided to the local board of education.

UNIT 1: ANALYZING EQUATIONS AND INEQUALITIES

Use the order of operations to evaluate expressions, and use formulas.
Determine the sets of numbers to which a number belongs.
Use the properties of real numbers to simplify expressions.
Represent and interpret data using line plots and stem-and-leaf plots.
Find and use median, mode, and mean to interpret data.
Translate verbal expressions and sentences into algebraic expressions and equations.
Solve equations by using the properties of equalities.
Solve equations for a specific variable.
Use a graphing calculator to estimate solutions to equations by building tables of values.
Solve equations containing absolute value.
Solve problems by making lists.
Solve inequalities and graph the solution sets.
Solve compound inequalities using "and" and "or".
Solve inequalities involving absolute value and graph the solutions.

UNIT 2: GRAPHING LINEAR RELATIONS AND FUNCTIONS

Graph a relation, state its domain and range, and determine if it is a function.
Find values of functions for given elements of the domain.
Use a graphing calculator to graph linear equations.
Identify equations that are linear and graph them.
Write linear equations in standard form.
Determine the intercepts of a line and use them to graph an equation.
Use a graphing calculator to approximate solutions to equations with one variable.
Determine the slope of a line.
Use slope and a point to graph an equation.

Determine if two lines are parallel, perpendicular, or neither.
Solve problems by identifying and using a pattern.
Write an equation of a line in slope-intercept form given the slope and one or two points.
Write an equation of a line that is parallel or perpendicular to the graph of a given equation.
Draw scatter plots and draw a best-fit line.
Find and use prediction equations.
Use a graphing calculator to graph lines of regression.
Identify and graph special functions.
Draw graphs of inequalities in two variables

UNIT 3: SOLVING SYSTEMS OF LINEAR EQUATIONS AND INEQUALITIES

Use a graphing calculator to graph and solve systems of linear equations.
Solve systems of equations by graphing.
Use the substitution and elimination methods to solve systems of equations.
Find the values of second-order determinants.
Solve systems of equations by using Cramer's rule.
Write a graphing calculator program to solve systems of equations using Cramer's rule.
Solve systems of inequalities by graphing.
Find the maximum and minimum values of a function over a region using linear programming techniques.
Solve problems by solving a simpler problem.
Solve problems involving maximum and minimum values by using linear programming techniques.
Solve a system of three equations in three variables.

UNIT 4: USING MATRICES

Perform scalar multiplication on a matrix.
Use equality of matrices to solve matrices for variables.
Solve problems using matrix logic.
Add and subtract matrices.
Multiply matrices.
Evaluate the determinant of a 3 X 3 matrix.
Find the area of a triangle, given the coordinates of its vertices.
Write the identity matrix for any square matrix.
Find the inverse of a 2 X 2 matrix.
Solve systems of linear equations by using inverse matrices.
Solve systems of linear equations by using augmented matrices.
Use the graphing calculator to perform operations with matrices, find determinants, find inverses, and solve systems of equations.
Find the range, quartiles, and inter-quartile range for a set of data.
Determine if any values in set of data are outliers.
Represent data using box-and-whisker plots.

UNIT 5: EXPLORING POLYNOMIALS AND RADICAL EXPRESSIONS

Multiply and divide monomials.
Represent numbers in scientific notation.
Multiply and divide numbers in scientific notation.
Add, subtract and multiply polynomials.
Divide polynomials using long division.

Divide polynomials by binomials using synthetic division.
Factor polynomials.
Use factoring to simplify polynomial expressions.
Simplify radicals having various indices.
Use a calculator to estimate roots of numbers.
Simplify radical expressions.
Rationalize the denominator of a fraction containing a radical expression.
Add, subtract, multiply, and divide radical expressions.
Solve problems by identifying and achieving subgoals.
Write expressions with rational exponents in simplest radical form and vice versa.
Evaluate expressions in either exponential or radical form.
Solve equations containing radicals.
Simplify square roots containing negative radicands.
Solve quadratic equations that have pure imaginary solutions.
Add, subtract, and multiply complex numbers.
Simplify rational expressions containing complex numbers in the denominator.

UNIT 6: EXPLORING QUADRATIC FUNCTIONS AND INEQUALITIES

Write functions in quadratic form.
Graph quadratic functions.
Solve quadratic functions by graphing.
Use a graphing calculator to graph and solve quadratic equations.
Solve problems using guess-and-check strategy.
Solve quadratic equations by factoring.
Solve quadratic equations by completing the square.
Solve quadratic equations by using the quadratic formula.
Use discriminants to determine the nature of the roots of quadratic equations.
Find the sum and product of the roots of quadratic equations.
Find a quadratic equation to fit a given condition.
Graph quadratic equations of the form $y = a(x-h)^2 + k$
Determine the equation of a parabola by using points on its graph.
Graph quadratic inequalities.
Solve quadratic inequalities in one variable.
Find the standard deviation for a set of data.
Solve problems involving normally distributed data.

UNIT 7: ANALYZING CONIC SECTIONS

Find the distance between two points in the coordinate plane.
Find the midpoint of a line segment in the coordinate plane.
Write equations of parabolas.
Graph parabolas having certain properties.
Write equations of circles.
Graph circles having certain properties.
Drawing ellipses.
Write equations of ellipses.
Graph ellipses having certain properties.
Write equations of hyperbolas.
Graph hyperbolas having certain properties.
Use a graphing calculator to graph conic sections.
Write equations of conic sections in standard form.
Identify conic sections from their equations.

Solve systems of equations involving quadratics graphically and algebraically.
Solve systems of inequalities involving quadratics graphically.
Use a graphing calculator to solve systems of quadratic equations and inequalities by graphing.

UNIT 8: EXPLORING POLYNOMIAL FUNCTIONS

Evaluate polynomial function.
Identify general shapes of the graphs of polynomial functions.
Find factors of polynomials by using the factor theorem and synthetic division.
Approximate the real zeros of a polynomial function.
Find maxima and minima of polynomial functions.
Graph polynomial functions.
Use a graphing calculator to graph polynomial functions and approximate the real zeros of a polynomial function.
Use a graphing calculator to model data whose curve of best fit is a polynomial function.
Find the number and type of zeros of a polynomial function.
Identify all possible rational zeros of a polynomial function by using the rational zero theorem.
Find zeros of polynomial functions.
Solve nonquadratic equations by using quadratic techniques.
Find the composition of functions.
Determine the inverse of a function or relation.
Graph functions and their inverses.
Work backward to solve problems.
Graph and analyze square root functions.
Graph square root inequalities.

UNIT 9: EXPLORING RATIONAL EXPRESSIONS

Graph rational functions.
Solve problems involving direct, inverse, and joint variation.
Simplify rational expressions
Simplify complex fractions.
Find the least common denominator of two or more algebraic expressions.
Add and subtract rational expressions.
Solve rational equations.

TITLE: FINITE/ TRIGONOMETRY
GRADE LEVEL: 10^{TH} – 12^{TH}

RESOURCE MATERIALS:

- Textbook: Advanced Mathematics: Precalculus with Discrete Mathematics and Data Analysis; Brown; Published by Houghton Mifflin Company; Copyright 1997
- Supplementary Resource Materials: Internet, worksheets, additional books
- Scientific / Graphing Calculators

CRITERIA FOR EVALUATION AND ASSESSMENT:

- oral assessment
- board work
- projects
- large and small group projects
- homework
- quizzes (written, on-line, clicker)
- tests
- school adopted state standards assessment

NEBRASKA STATE MATH STANDARDS:

MA 12.1 Students will communicate number sense concepts using multiple representations to reason, solve problems, and make connections within mathematics and across disciplines.

MA 12.1.1 Number System: Students will represent and show relationships among complex numbers.

MA 12.1.1.a Demonstrate multiple equivalent forms of irrational numbers (e.g.,)
MA 12.1.1.b Compare, contrast and apply the properties of numbers and the real number system, including rational, irrational, imaginary, and complex numbers

MA 12.1.2 Operations: Students will demonstrate the meaning and effects of arithmetic operations with real numbers.

MA 12.1.2.a Use drawings, words, and symbols to explain the effects of such operations as multiplication and division, and computing positive powers and roots on the magnitude of quantities (e.g., if you take the square root of a number, will the result always be smaller than the original number? (e.g.,))
MA 12.1.2.b Use drawings, words, and symbols to explain that the distance between two numbers on the number line is the absolute value of their difference

MA 12.1.3 Computation: Students will compute fluently and accurately using appropriate strategies and tools.

MA 12.1.3.a Compute accurately with real numbers
MA 12.1.3.b Simplify exponential expressions (e.g., powers of -1, 0, ½,)
MA 12.1.3.c Multiply and divide numbers using scientific notation
MA 12.1.3.d Select, apply, and explain the method of computation when problem solving using real numbers (e.g., models, mental computation, paper-pencil, or technology)

MA 12.1.4 Estimation: Students will estimate and check reasonableness of answers using appropriate strategies and tools.

MA 12.1.4.a Use estimation methods to check the reasonableness of real number computations and decide if the problem calls for an approximation or an exact number (e.g., 10 π (pi) is approximately 31.4, square and cube roots)
MA 12.1.4.b Distinguish relevant from irrelevant information, identify missing information and either find what is needed or make appropriate estimates

MA 12.2 Students will communicate geometric concepts and measurement concepts using multiple representations to reason, solve problems, and make connections within mathematics and across disciplines.

MA 12.2.1 Characteristics: Students will analyze characteristics, properties, and relationships among geometric shapes and objects.

MA12.2.1.a Identify and explain the necessity of and give examples of definitions and theorems
MA 12.2.1.b Analyze properties and relationships among classes of two and three dimensional geometric objects using inductive reasoning and counterexamples
MA 12.2.1 c State and prove geometric theorems using deductive reasoning (e.g., parallel lines with transversals, congruent triangles, similar triangles)
MA 12.2.1.d Apply geometric properties to solve problems (e.g., parallel lines, line transversals, similar triangles, congruent triangles, proportions)
MA 12.2.1.e Identify and apply right triangle relationships (e.g., sine, cosine, tangent, special right triangles, converse of Pythagorean Theorem)
MA 12.2.1.f Recognize that there are geometries, other than Euclidean geometry, in which the parallel postulate is not true
MA12.2.1.g Know the definitions and basic properties of a circle and use them to prove basic theorems and solve problems

MA 12.2.2 Coordinate Geometry: Student will use coordinate geometry to analyze and describe relationships in the coordinate plane.

MA 12.2.2.a Use coordinate geometry to analyze geometric situations (e.g., parallel lines, perpendicular lines, circle equations)
MA 12.2.2.b Apply the midpoint formula
MA 12.2.2.c Apply the distance formula
MA 12.2.2.d Prove special types of triangles and quadrilaterals (e.g., right triangles, isosceles trapezoid, parallelogram, rectangle, square)

MA 12.2.3 Transformations: Students will apply and analyze transformations.

MA 12.2.3.a Explain and justify the effects of simple transformations on the ordered pairs of two-dimensional shapes
MA 12.2.3.b Perform and describe multiple transformations

MA 12.2.4 Spatial Modeling: Students will use visualization, spatial reasoning, and geometric modeling to solve problems.

MA 12.2.4.a Sketch and draw appropriate representations of geometric objects using ruler, protractor, or technology
MA 12.2.4.b Use geometric models to visualize, describe, and solve problems (e.g., find the height of a tree; find the amount of paint needed for a room; scale model)

MA 12.2.5 Measurement: Students will apply the units, systems, and formulas to solve problems.

MA 12.2.5.a Use strategies to find surface area and volume of complex objects
MA 12.2.5.b Apply appropriate units and scales to solve problems involving measurement
MA 12.2.5.c Convert between various units of area and volume, such as square feet to square yards
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MA 12.2.5.f Determine surface area and volume of three-dimensional objects (e.g., spheres, cones, pyramids)
MA12.2.5.g Know that the effect of a scale factor k on length, area and volume is to multiply each by k, k^2 and k^3, respectively

MA 12.3 Students will communicate algebraic concepts using multiple representations to reason, solve problems, and make connections within mathematics and across disciplines.

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NON LINEAR FUNCTIONS INCLUDE: QUADRATIC, ABSOLUTE VALUE, SQUARE ROOT, EXPONENTIAL
MA 12.3.1.a Represent, interpret, and analyze functions with graphs, tables, and algebraic notation and convert among these representations (e.g., linear, non-linear)
MA 12.3.1.b Identify domain and range of functions represented in either symbolic or graphical form (e.g., linear, non-linear)
MA 12.3.1.c Identify the slope and intercepts of a linear relationship from an equation or graph
MA 12.3.1.d Identify characteristics of linear and non-linear functions
MA 12.3.1.e Graph linear and non-linear functions

MA 12.3.1.f Compare and analyze the rate of change by using ordered pairs, tables, graphs, and equations
MA 12.3.1.g Graph and interpret linear inequalities
MA 12.3.1.h Represent, interpret, and analyze functions and their inverses
MA 12.3.1.i Determine if a relation is a function

MA 12.3.2 Modeling in Context: Students will model and analyze quantitative relationships.

CONTEXTUALIZED PROBLEM – A MATHEMATICAL SITUATION PLACED IN A PARTICULAR CONTEXT (E.G., USING WORDS, DIAGRAMS, TABLES, DRAWINGS, ETC.)
MA 12.3.2.a Model contextualized problems using various representations (e.g., graphs, tables, one variable equalities, one variable inequalities, linear equations in slope intercept form, inequalities in slope intercept form, system of linear equations with two variables)
MA 12.3.2.b Represent a variety of quantitative relationships using linear equations and one variable inequalities
MA 12.3.2.c Analyze situations to determine the type of algebraic relationship (e.g., linear, nonlinear)
MA 12.3.2.d Model contextualized problems using various representations for non-linear functions (e.g., quadratic, exponential, square root, and absolute value)

MA 12.3.3 Procedures: Students will represent and solve equations and inequalities.

MA 12.3.3.a Explain/apply the reflexive, symmetric, and transitive properties of equality
MA 12.3.3.b Simplify algebraic expressions involving exponents (e.g., $(3x_4)_2$)
MA 12.3.3.c Add and subtract polynomials
MA 12.3.3.d Multiply and divide polynomials (e.g., divide $x_3 – 8$ by $x – 2$, divide $x_4 – 5x_3 – 2x$ by x_2)
MA 12.3.3.e Factor polynomials
MA 12.3.3.f Identify and generate equivalent forms of linear equations
MA 12.3.3.g Solve linear equations and inequalities including absolute value
MA 12.3.3.h Identify and explain the properties used in solving equations and inequalities
MA 12.3.3.i Solve quadratic equations (e.g., factoring, graphing, quadratic formula)
MA 12.3.3.j Add, subtract, and simplify rational expressions
MA 12.3.3.k Multiply, divide, and simplify rational expressions
MA 12.3.3.l Evaluate polynomial and rational expressions and expressions containing radicals and absolute values at specified values of their variables
MA 12.3.3.m Derive and use the formulas for the general term and summation of finite arithmetic and geometric series
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MA 12.4.2.c Develop linear equations for linear models to predict unobserved outcomes using regression line and correlation coefficient
MA 12.4.2.d Recognize when arguments based on data confuse correlation with causation

MA 12.4.3 Probability: Students will apply and analyze concepts of probability.

MA 12.4.3.a Construct a sample space and a probability distribution
MA 12.4.3.b Identify dependent and independent events and calculate their probabilities

MA 12.4.3.c Use the appropriate counting techniques to determine the probability of an event (e.g., combinations, permutations)
MA 12.4.3.d Analyze events to determine if they are mutually exclusive
MA 12.4.3.e Determine the relative frequency of a specified outcome of an event to estimate the probability of the outcome

SIX TRAIT CURRICULUM

The Johnson County Central Public School District endorses and implements the Six Traits model of writing instruction and assessment. It is an ongoing expectation that all faculty members will implement this mode of language instruction in their classroom.

IDEA	The writer's primary message, point of story, showing details and clarity
ORANIZATION	Putting information into an order that shows direction and purpose
VOICE	Includes the expression of a writer's personality; an awareness of the intended audience; and a skillful blend of detail, enthusiasm, and knowledge of the topic.
WORD CHOICE	Selecting, identifying, and revising specific descriptive language
SENTENCE FLUENCY	Smooth writing patterns and rhythmic flow of language
CONVENTIONS	Using appropriate editing and presentation skills

Criteria for Evaluation and Assessment:

1. Essay questions on quizzes follow this model.
2. Develop and write a short story that incorporate three math concepts taught during the year. The concepts are to play key roles in the story.
3. Use district assessment form to implement six trait writing in the classroom.
4. Put visual aide material up in classroom to promote the six traits.
5. Administer appropriate rubrics and assessments.

MULTICULTURAL EDUCATION

The instructional program at Johnson County Central incorporates multicultural education in all curriculum areas at all grades. Multicultural education includes, but is not limited to studies relative to culture, history, and contribution of African Americans, Hispanic Americans, Native Americans, Asian Americans and European Americans with special emphasis on human relations and sensitivity toward all races.

Criteria For Evaluation and Assessments:

1. A district assessment form is used to document multicultural education in the classroom
2. An annual status report is provided to the local board of education

FINITE / TRIGONOMETRY CURRICULUM

FINITE

- **POLYNOMIAL AND RATIONAL FUNCTIONS**
  - Polynomial Functions: define, identify
  - Polynomial Division

        - Long: find, simplify
        - Synthetic: find, simplify
    - Factor Theorem: define, apply, evaluate
    - Remainder Theorem: define, apply
    - Zeros, x-intercepts, Solutions, and Factors of Polynomials: find, apply
    - Real Zeros
        - Rational Zero Test: apply, find, evaluate
        - Upper and Lower Bounds: apply, find evaluate
        - Finding Real Zeros of Polynomials: find, evaluate, apply
    - Graphs of Polynomial Functions
        - Polynomial Functions Odd Degree: identify
        - Polynomial Functions Even Degree: identify
        - End Behavior of Polynomial Functions: determine, identify
        - Intercepts: determine
        - Multiplicity and Graphs: identify
        - Number of Local Extrema: determine
        - Number of Points of Inflection: determine
    - Rational Functions
        - Domain of Rational Functions: determine
        - Intercepts of Rational Functions: find, evaluate
        - Big-Little Concept: identify, graph
        - Vertical Asymptotes: identify, graph, determine
        - Holes: identify, graph, determine
        - End Behavior of Rational Functions: apply, determine
        - Graphing Rational Functions: evaluate, graph

- **SEQUENCES AND SERIES**
    - Arithmetic Progressions
        - Last Term: find, evaluate
        - Arithmetic Means: find, evaluate, insert
        - Sum of n Terms of an Arithmetic Progression: find, evaluate
        - Applications of Arithmetic Progressions: apply, evaluate
    - Geometric Progressions
        - Last Term: find, evaluate
        - Geometric Means: find, evaluate, insert
        - Sum of n Terms of an Geometric Progression: find, evaluate
        - Infinite Geometric Series: evaluate
        - Applications of Geometric Progressions: apply, evaluate

- **BINOMIAL THEOREM**
    - Binomial Expansion
        - Factorials: define, evaluate
        - Pascal's Triangle: define, create, interpret
        - Binomial Expansion using Pascal's Triangle: apply, simplify
        - Binomial Formula: define, apply, simplify
        - Finding the nth term of an Expansion
            - Using Pascal's Triangle: evaluate, find
            - Using nth Term Formula: evaluate, find

- **DETERMINANTS**
    - Determinant Defined & Terminology: identify, match

- Evaluating 2x2 Determinants: evaluate
- Evaluating 3x3 Determinants: evaluate
- Cramer's Rule: apply, evaluate, solve

- **PERMUATATION, COMBINATIONS**
  - Fundamental Counting Principle: apply, evaluate
  - Permutations
    - Permutations without Repetition: define, apply, find, simplify
    - Circular Permutations: define, apply, find
    - Permutations with Repetition: define, apply, find, simplify
    - Applications: apply, find, simplify
  - Combinations
    - Combinations: define, apply, find, simplify
    - Total Combinations: define, apply, find, simplify
    - Applications: apply, find, simplify

- **PROBABILITY**
  - Computing Probabilities in Simple Experiments
    - Sample Space and Events: define, identify, represent
    - Experimental Probability: define, test, evaluate
    - Theoretical Probability: compute, interpret, simplify
    - Mutually Exclusive Events: define, identify, interpret
    - Complement of an Event: define, determine, evaluate
    - Properties of Probability: define, apply, evaluate
  - Computing Probabilities in Multistage Experiments
    - Tree Diagrams: create, evaluate, interpret
    - Fundamental Counting Principle: define, apply, interpret, evaluate
    - Probability Tree Diagrams and Their Properties: draw, apply, interpret, evaluate
  - Conditional Probability, Expected Value, and Odds
    - Conditional Probability: define, apply, calculate, interpret
    - Independent Events: define, apply, calculate, interpret
    - Expected Value: define, apply, calculate, interpret
    - Odds: define, apply, calculate, interpret

TRIGONOMETRY

- **TRIGONOMETRIC FUNCTIONS**
  - Solving Right Triangles: solve, evaluate, apply

- **RIGHT TRIANGLE TRIGONOMETRY AND BASIC IDENTITIES**
  - Solving Right Triangles: solve, evaluate, apply
  - Angles of Elevation and Depression: solve, evaluate, apply
  - Fundamental Identities: memorize, prove, apply, rewrite
    - Reciprocal Relations
    - Pythagorean Relations
    - Odd-Even Identities
    - Ratio Identities
  - Equivalent Trigonometric Expressions: rewrite, simplify, convert
  - Proving Identities: prove, apply
  - Graphical Representations of Identities: graph, identify, match

- **RIGHT TRIANGLE TRIGONOMETRIC IDENTITIES**
  - Cosine: Sum and Difference: prove, apply, evaluate
  - Sine: Sum and Difference: prove, apply, evaluate
  - Tangent: Sum and Difference: prove, apply, evaluate
  - Double Angle Identities: prove, apply, evaluate
  - Half-Angle Identities: prove, apply, evaluate
  - Product to Sum Identities prove, apply, evaluate
  - Sum to Product Identities: prove, apply, evaluate
  - Solving Equations using Identities: apply, solve, check

- **GRAPHING TRIGONOMETRIC FUNCTIONS**
  - Periodic Functions and Symmetry: graph, identify, match
  - Graphs of Sine and Cos: graph, identify
  - Amplitude: find, identify, graph, write equation
  - Phase Shift: find, identify, graph, write equation
  - Vertical Shift: find, identify, graph, write equation
  - Period: find, identify, graph, write equation
  - Graphing by Translation: graph, write equation
  - Graphs of Tangent and Cotangent: graph, identify, match
  - Graphs of Secant and Cosecant: graph, identify, match

- **INVERSE TRIGONOMETRIC FUNCTIONS**
  - Inverse Relations and Functions: graph, identify, evaluate
  - Inverse of Sine and Cosine Functions: graph, identify, evaluate
  - Other Inverse Trigonometric Functions: graph, identify, evaluate
  - Solving Trigonometric Equations: solve, check, exact, approximate
  - Sine: Sum and Difference: prove, apply, evaluate
  - Tangent: Sum and Difference: prove, apply, evaluate
  - Double Angle Identities: prove, apply, evaluate
  - Half-Angle Identities: prove, apply, evaluate
  - Product to Sum Identities prove, apply, evaluate
  - Sum to Product Identities: prove, apply, evaluate
  - Solving Equations using Identities: apply, solve, check

- **GRAPHING TRIGONOMETRIC FUNCTIONS**
  - Periodic Functions and Symmetry: graph, identify, match
  - Graphs of Sine and Cos: graph, identify
  - Amplitude: find, identify, graph, write equation
  - Phase Shift: find, identify, graph, write equation
  - Vertical Shift: find, identify, graph, write equation
  - Period: find, identify, graph, write equation
  - Graphing by Translation: graph, write equation
  - Graphs of Tangent and Cotangent: graph, identify, match
  - Graphs of Secant and Cosecant: graph, identify, match

- **INVERSE TRIGONOMETRIC FUNCTIONS**
  - Inverse Relations and Functions: graph, identify, evaluate
  - Inverse of Sine and Cosine Functions: graph, identify, evaluate
  - Other Inverse Trigonometric Functions: graph, identify, evaluate
  - Solving Trigonometric Equations: solve, check, exact, approximate

TITLE: **BUSINESS MATH**
GRADE: **11TH-12TH**

RESOURCE MATERIALS: Textbook: Business Math Published by Thomson Southwestern copyright 2003. Teacher made handouts and Scientific calculators.

CRITERIA FOR EVALUATION AND ASSESSMENT: Tests, quizzes, daily homework, school adopted state standards assessments.

STATE STANDARDS:

MA 12.1 Students will communicate number sense concepts using multiple representations to reason, solve problems, and make connections within mathematics and across disciplines.

MA 12.1.1 Number System: Students will represent and show relationships among complex numbers.

MA 12.1.1.a Demonstrate multiple equivalent forms of irrational numbers (e.g.,)
MA 12.1.1.b Compare, contrast and apply the properties of numbers and the real number system, including rational, irrational, imaginary, and complex numbers

MA 12.1.2 Operations: Students will demonstrate the meaning and effects of arithmetic operations with real numbers.

MA 12.1.2.a Use drawings, words, and symbols to explain the effects of such operations as multiplication and division, and computing positive powers and roots on the magnitude of quantities (e.g., if you take the square root of a number, will the result always be smaller than the original number? (e.g.,))
MA 12.1.2.b Use drawings, words, and symbols to explain that the distance between two numbers on the number line is the absolute value of their difference

MA 12.1.3 Computation: Students will compute fluently and accurately using appropriate strategies and tools.

MA 12.1.3.a Compute accurately with real numbers
MA 12.1.3.b Simplify exponential expressions (e.g., powers of -1, 0, ½,)
MA 12.1.3.c Multiply and divide numbers using scientific notation
MA 12.1.3.d Select, apply, and explain the method of computation when problem solving using real numbers (e.g., models, mental computation, paper-pencil, or technology)

MA 12.1.4 Estimation: Students will estimate and check reasonableness of answers using appropriate strategies and tools.

MA 12.1.4.a Use estimation methods to check the reasonableness of real number computations and decide if the problem calls for an approximation or an exact number (e.g., 10 π (pi) is approximately 31.4, square and cube roots)
MA 12.1.4.b Distinguish relevant from irrelevant information, identify missing information and either find what is needed or make appropriate estimates

MA 12.2 Students will communicate geometric concepts and measurement concepts using multiple representations to reason, solve problems, and make connections within mathematics and across disciplines.

MA 12.2.1 Characteristics: Students will analyze characteristics, properties, and relationships among geometric shapes and objects.

MA12.2.1.a Identify and explain the necessity of and give examples of definitions and theorems
MA 12.2.1.b Analyze properties and relationships among classes of two and three dimensional geometric objects using inductive reasoning and counterexamples
MA 12.2.1 c State and prove geometric theorems using deductive reasoning (e.g., parallel lines with transversals, congruent triangles, similar triangles)
MA 12.2.1.d Apply geometric properties to solve problems (e.g., parallel lines, line transversals, similar triangles, congruent triangles, proportions)
MA 12.2.1.e Identify and apply right triangle relationships (e.g., sine, cosine, tangent, special right triangles, converse of Pythagorean Theorem)
MA 12.2.1.f Recognize that there are geometries, other than Euclidean geometry, in which the parallel postulate is not true

MA12.2.1.g Know the definitions and basic properties of a circle and use them to prove basic theorems and solve problems

MA 12.2.2 Coordinate Geometry: Student will use coordinate geometry to analyze and describe relationships in the coordinate plane.

MA 12.2.2.a Use coordinate geometry to analyze geometric situations (e.g., parallel lines, perpendicular lines, circle equations)
MA 12.2.2.b Apply the midpoint formula
MA 12.2.2.c Apply the distance formula
MA 12.2.2.d Prove special types of triangles and quadrilaterals (e.g., right triangles, isosceles trapezoid, parallelogram, rectangle, square)

MA 12.2.3 Transformations: Students will apply and analyze transformations.

MA 12.2.3.a Explain and justify the effects of simple transformations on the ordered pairs of two-dimensional shapes
MA 12.2.3.b Perform and describe multiple transformations

MA 12.2.4 Spatial Modeling: Students will use visualization, spatial reasoning, and geometric modeling to solve problems.

MA 12.2.4.a Sketch and draw appropriate representations of geometric objects using ruler, protractor, or technology
MA 12.2.4.b Use geometric models to visualize, describe, and solve problems (e.g., find the height of a tree; find the amount of paint needed for a room; scale model)

MA 12.2.5 Measurement: Students will apply the units, systems, and formulas to solve problems.

MA 12.2.5.a Use strategies to find surface area and volume of complex objects
MA 12.2.5.b Apply appropriate units and scales to solve problems involving measurement
MA 12.2.5.c Convert between various units of area and volume, such as square feet to square yards
MA 12.2.5.d Convert equivalent rates (e.g., feet/second to miles/hour)
MA 12.2.5.e Find arc length and area of sectors of a circle
MA 12.2.5.f Determine surface area and volume of three-dimensional objects (e.g., spheres, cones, pyramids)
MA12.2.5.g Know that the effect of a scale factor k on length, area and volume is to multiply each by k, k^2 and k^3, respectively

MA 12.3 Students will communicate algebraic concepts using multiple representations to reason, solve problems, and make connections within mathematics and across disciplines.

MA 12.3.1 Relationships: Students will generalize, represent, and analyze relationships using algebraic symbols.

NON LINEAR FUNCTIONS INCLUDE: QUADRATIC, ABSOLUTE VALUE, SQUARE ROOT, EXPONENTIAL
MA 12.3.1.a Represent, interpret, and analyze functions with graphs, tables, and algebraic notation and convert among these representations (e.g., linear, non-linear)
MA 12.3.1.b Identify domain and range of functions represented in either symbolic or graphical form (e.g., linear, non-linear)
MA 12.3.1.c Identify the slope and intercepts of a linear relationship from an equation or graph
MA 12.3.1.d Identify characteristics of linear and non-linear functions
MA 12.3.1.e Graph linear and non-linear functions
MA 12.3.1.f Compare and analyze the rate of change by using ordered pairs, tables, graphs, and equations
MA 12.3.1.g Graph and interpret linear inequalities
MA 12.3.1.h Represent, interpret, and analyze functions and their inverses
MA 12.3.1.i Determine if a relation is a function

MA 12.3.2 Modeling in Context: Students will model and analyze quantitative relationships.

CONTEXTUALIZED PROBLEM – A MATHEMATICAL SITUATION PLACED IN A PARTICULAR CONTEXT (E.G., USING WORDS, DIAGRAMS, TABLES, DRAWINGS, ETC.)
MA 12.3.2.a Model contextualized problems using various representations (e.g., graphs, tables, one variable equalities, one variable inequalities, linear equations in slope intercept form, inequalities in slope intercept form, system of linear equations with two variables)
MA 12.3.2.b Represent a variety of quantitative relationships using linear equations and one variable inequalities
MA 12.3.2.c Analyze situations to determine the type of algebraic relationship (e.g., linear, nonlinear)
MA 12.3.2.d Model contextualized problems using various representations for non-linear functions (e.g., quadratic, exponential, square root, and absolute value)

MA 12.3.3 Procedures: Students will represent and solve equations and inequalities.
MA 12.3.3.a Explain/apply the reflexive, symmetric, and transitive properties of equality
MA 12.3.3.b Simplify algebraic expressions involving exponents (e.g., $(3x_4)_2$)
MA 12.3.3.c Add and subtract polynomials
MA 12.3.3.d Multiply and divide polynomials (e.g., divide $x_3 – 8$ by $x – 2$, divide $x_4 – 5x_3 – 2x$ by x_2)
MA 12.3.3.e Factor polynomials
MA 12.3.3.f Identify and generate equivalent forms of linear equations
MA 12.3.3.g Solve linear equations and inequalities including absolute value
MA 12.3.3.h Identify and explain the properties used in solving equations and inequalities
MA 12.3.3.i Solve quadratic equations (e.g., factoring, graphing, quadratic formula)
MA 12.3.3.j Add, subtract, and simplify rational expressions
MA 12.3.3.k Multiply, divide, and simplify rational expressions
MA 12.3.3.l Evaluate polynomial and rational expressions and expressions containing radicals and absolute values at specified values of their variables
MA 12.3.3.m Derive and use the formulas for the general term and summation of finite arithmetic and geometric series
MA 12.3.3.n Combine functions by composition, as well as by addition, subtraction, multiplication, and division
MA 12.3.3.o Solve an equation involving several variables for one variable in terms of the others
MA 12.3.3.p Analyze and solve systems of two linear equations in two variables algebraically and graphically

MA 12.4 Students will communicate data analysis/probability concepts using multiple representations to reason, solve problems, and make connections within mathematics and across disciplines.

MA 12.4.1 Display and Analysis: Students will formulate a question and design a survey or an experiment in which data is collected and displayed in a variety of formats, then select and use appropriate statistical methods to analyze the data.

MA 12.4.1.a Interpret data represented by the normal distribution and formulate conclusions
MA 12.4.1.b Compute, identify, and interpret measures of central tendency (mean, median, mode) when provided a graph or data set
MA 12.4.1.c Explain how sample size and transformations of data affect measures of central tendency
MA 12.4.1.d Describe the shape and determine spread (variance, standard deviation) and outliers of a data set
MA 12.4.1.e Explain how statistics are used or misused in the world
MA 12.4.1.f Create scatter plots, analyze patterns, and describe relationships in paired data
MA 12.4.1.g Explain the impact of sampling methods, bias, and the phrasing of questions asked during data collection and the conclusions that can rightfully be made
MA 12.4.1.h Explain the differences between randomized experiment and observational studies

MA 12.4.2 Predictions and Inferences: Students will develop and evaluate inferences to make predictions.
MA 12.4.2.a Compare data sets and evaluate conclusions using graphs and summary statistics
MA 12.4.2.b Support inferences with valid arguments
MA 12.4.2.c Develop linear equations for linear models to predict unobserved outcomes using regression line and correlation coefficient
MA 12.4.2.d Recognize when arguments based on data confuse correlation with causation

MA 12.4.3 Probability: Students will apply and analyze concepts of probability.
MA 12.4.3.a Construct a sample space and a probability distribution
MA 12.4.3.b Identify dependent and independent events and calculate their probabilities
MA 12.4.3.c Use the appropriate counting techniques to determine the probability of an event (e.g., combinations, permutations)
MA 12.4.3.d Analyze events to determine if they are mutually exclusive
MA 12.4.3.e Determine the relative frequency of a specified outcome of an event to estimate the probability of the outcome

SIX TRAIT CURRICULUM

The Johnson County Central Public School District endorses and implements the Six Traits model of writing instruction and assessment. It is an ongoing expectation that all faculty members will implement this mode of language instruction in their classroom.

IDEAS – The writer's primary message, point of story, showing details and clarity.
ORGANIZATION – Putting information into an order that shows direction and purpose.

VOICE – Includes the expression of a writer's personality; an awareness of the intended audience; and a skillful blend of detail, enthusiasm, and knowledge of the topic.
WORD CHOICE – Selecting, identifying, and revising specific descriptive language.
SENTENCE FLUENCY – Smooth writing patterns and rhythmic flow of language.
CONVENTIONS – Using appropriate editing and presentation skills.

Criteria For Evaluation And Assessments:

1. Weekly writing skills.
2. Use district assessment form to implement six traits writing in the classroom.
3. Put visual aide materials up in the classroom to promote the six traits.
4. Administer appropriate rubrics and assessments.

MULTICULTURAL EDUCATION

The instructional program at Johnson County Central Public Schools incorporates multicultural education in all curriculum areas at all grades. Multicultural education includes, but is not limited to, studies relative to the culture, history, and contributions of African Americans, Hispanic Americans, Native Americans, Asian Americans and European Americans with special emphasis on human relations and sensitivity toward all races.

Criteria For Evaluation And Assessments:

1. A district assessment form is used to document multicultural education in the classroom.
2. An annual status report is provided to the local board of education.

UNIT 1: GROSS PAY

1. Students learn to find the gross pay for hourly-rate salaried employees.
2. Students use gross pay amounts to calculate simply and grouped-data averages and find the unknown item in a set of data.
3. Students calculate the number of overtime hours, overtime pay rates, and regular and overtime pay.
4. Students learn to find straight, quota-based, and graduated commissions and the rate of commission.
5. Students calculate the grow wages of employees paid on a piece-rate, per diem, and tip basis.

UNIT 2: NET PAY

1. Students learn to find federal withholding taxes, calculate social security and Medicare taxes, and find net pay.
2. Students calculate fringe benefits, job expenses, and net job benefits.
3. Students calculate adjusted gross income, tax due, and refunds for single dependents.
4. Students calculate state and city income taxes using flat and gradated tax rates.
5. Students learn to find total receipts and keep a columnar cash payments record with grand totals.
6. Students prepare budgets and calculate the percent of income spent on expenses.

UNIT 3: BANKING SERVICES

1. Students prepare deposit slips and find account balances.
2. Students record electronic bank transactions and find account balances.
3. Students calculate the account balance needed to make electronic payments.
4. Students reconcile check registers and bank statements.
5. Students calculate simple and compound interest.

6. Students calculate the interest earned on money market and CD accounts, early withdrawal penalties, and the effective rate of interest.

UNIT 4: CREDIT CARDS AND LOANS

1. Students find interest on notes using exact and ordinary interest methods.
2. Students calculate interest and the proceeds for discounted notes, and find the true rate of interest on discounted notes.
3. Students use simple interest tables to calculate interest.
4. Students calculate the installment price and finance charges on installment purchases.
5. Students find how much interest must be refunded to borrowers and the amount borrows must pay when Rule of 78 installment loans are paid off early.

UNIT 5: SPEND WISELY

1. Students calculate sales tax on purchases.
2. Students calculate extensions, sales taxes, and total sales.
3. Students calculate and compare unit prices, they also find unit prices from group prices.
4. Students learn to compare prices at sale, from different vendors, and if different product quantities.
5. Student compare internet access costs and speeds.

UNIT 6: OWN A CAR OR HOME

1. Students calculate home purchase costs and total interest paid on a mortgage loan.
2. Students compare the costs of owning and renting a home.
3. Students calculate decimal tax rates on property taxes.
4. Students calculate premiums for homeowners and renters and the amount collected on claims.
5. Students find the MSRP of new cars and the delivered price and balance due for car purchases.
6. Students calculate the amount rate of car depreciation.
7. Students calculate care insurance premiums.
8. Students calculate total payments and finance charges for car loans, compare costs of leasing and buying cars, and consider the costs of operating a car.

UNIT 7: INSURANCE AND INVESTMENTS

1. Students find life insurance premiums, cash surrender values, and the net cost of insurance.
2. Students find health insurance premiums, coinsurance, and benefits.
3. Students calculate disability insurance benefits.
4. Students find the market price of bonds and their total investments.
5. Students find bond income, yield, and the total cost of bonds.
6. Students find the cost of stock purchases, dividends, yield, and proceeds from the sale of stocks.
7. Students find mutual fund investments, commissions, and profit or loss from investments.
8. Students find the net income on investments and find the rent tenants need to be charged.
9. Students find retirement income.

UNIT 8: BUSINESS DATA ANALYSIS

1. Students calculate the mean, median, mode and range for a set of data and a frequency distribution table.
2. Students calculate the probability for simple events, experiments, and events based on experience.
3. Students interpret and make bar graphs and line graphs.
4. Students make circle graphs and interpret and make rectangular graphs.
5. Students interpret consumer price index data, calculate rates of inflation and the purchasing power of the dollar, and analyze unemployment data.

UNIT 9: BUSINESS TECHNOLOGIES

1. Students learn to find the costs of buying and leasing computer hardware and the costs and capacities of data storage.
2. Students calculate the costs of buying and developing software.
3. Students calculate the costs of operating and supporting computer systems.
4. Students find the costs of creating and maintaining e-business services.
5. Students learn to calculate the costs of wireless phone services.

UNIT 10: MANAGE PEOPLE AND INVENTORY

1. Students calculate the costs of employment ads, hiring employees, and using outside agencies.
2. Students calculate COLA, bonuses, and profit sharing.
3. Students calculate the costs of full and part-time employees.
4. Students calculate inventory balances using FIFO, LIFO, and weighted average methods.
5. Students calculate inventory balances and stock reorder points.
6. Students find the costs of ordering and carrying inventory.

UNIT 11: BUSINESS COSTS

1. Students learn to fin the prime cost and total manufacturing costs.
2. Students learn to calculate the break-even point for products in units and dollars.
3. Students learn to calculate depreciation using the declining balance, sum-of-the-years-digits, and modified accelerated cost recovery system methods.
4. Students learn to calculate shipping and freight charges.
5. Students learn to find the costs of office space and the costs of a unit of office work.
6. Students learn to calculate mileage reimbursement and travel expenses.

UNIT 12: SALES AND MARKETING

1. Students prove cash and calculate invoices, credit memos, and customer accounts.
2. Students calculate cash and trade discounts, cash and invoice prices and rates of discount.
3. Students find the invoice price and the single discount equivalent for the series of discounts.
4. Students calculate cost and selling price for markup on selling price, rate of markup on cost, and selling price on markdown.
5. Students find the response rate and analyze survey results.
6. Students find future sales based on trends and forecast methods.
7. Students calculate market share.
8. Students calculate the total and per person cost of advertising.

UNIT 13: BUSINESS PROFIT AND LOSS

1. Students learn to find net sales, costs of goods sold, gross profit, and net income.

2. Students learn to distribute partnership income in proportion to investments.
3. Students learn to calculate total assets, liabilities, and capital.
4. Students learn to find the current ratio, debt-to-equity ratio, and return on equity.
5. Students learn to calculate the percent and amount of bankruptcy.

UNIT 14: INTERNATIONAL BUSINESS

1. Students calculate time if different time zones and convert Fahrenheit and Celsius temperatures.
2. Students convert metric units of length, do arithmetic operations with metric lengths, and convert metric and customary length of measures.
3. Students convert metric and customary units of area.
4. Students convert metric and customary units of capacity.

TITLE: College Algebra
GRADE: 12th

Resource Materials: Textbook: College Algebra McGraw Hill copyright 2014. Teacher made handouts, calculators.

Nebraska Mathematics Standards
Grade 12

MA 12.1 Students will communicate number sense concepts using multiple representations to reason, solve problems, and make connections within mathematics and across disciplines.

MA 12.1.1 Number System: Students will represent and show relationships among complex numbers.

MA 12.1.1.a Demonstrate multiple equivalent forms of irrational numbers (e.g., $\sqrt{8} = 8^{1/2} = 2\sqrt{2}$)
MA 12.1.1.b Compare, contrast and apply the properties of numbers and the real number system, including rational, irrational, imaginary, and complex numbers

MA 12.1.2 Operations: Students will demonstrate the meaning and effects of arithmetic operations with real numbers.

MA 12.1.2.a Use drawings, words, and symbols to explain the effects of such operations as multiplication and division, and computing positive powers and roots on the magnitude of quantities (e.g., if you take the square root of a number, will the result always be smaller than the original number? (e.g., $\sqrt{1/4} = 1/2$))
MA 12.1.2.b Use drawings, words, and symbols to explain that the distance between two numbers on the number line is the absolute value of their difference

MA 12.1.3 Computation: Students will compute fluently and accurately using appropriate strategies and tools.

MA 12.1.3.a Compute accurately with real numbers
MA 12.1.3.b Simplify exponential expressions (e.g., powers of -1, 0, ½, $3^2 * 3^2 = 3^4$)
MA 12.1.3.c Multiply and divide numbers using scientific notation
MA 12.1.3.d Select, apply, and explain the method of computation when problem solving using real numbers (e.g., models, mental computation, paper-pencil, or technology)

MA 12.1.4 Estimation: Students will estimate and check reasonableness of answers using appropriate strategies and tools.

MA 12.1.4.a Use estimation methods to check the reasonableness of real number computations and decide if the problem calls for an approximation or an exact number (e.g., 10 π (pi) is approximately 31.4, square and cube roots)
MA 12.1.4.b Distinguish relevant from irrelevant information, identify missing information and either find what is needed or make appropriate estimates

MA 12.2 Students will communicate geometric concepts and measurement concepts using multiple representations to reason, solve problems, and make connections within mathematics and across disciplines.

MA 12.2.1 Characteristics: Students will analyze characteristics, properties, and relationships among geometric shapes and objects.

MA 12.2.1.a Identify and explain the necessity of and give examples of definitions and theorems
MA 12.2.1.b Analyze properties and relationships among classes of two and three dimensional geometric objects using inductive reasoning and counterexamples

MA 12.2.1.c State and prove geometric theorems using deductive reasoning (e.g., parallel lines with transversals, congruent triangles, similar triangles)
MA 12.2.1.d Apply geometric properties to solve problems (e.g., parallel lines, line transversals, similar triangles, congruent triangles, proportions)
MA 12.2.1.e Identify and apply right triangle relationships (e.g., sine, cosine, tangent, special right triangles, converse of Pythagorean Theorem)
MA 12.2.1.f Recognize that there are geometries, other than Euclidean geometry, in which the parallel postulate is not true
MA12.2.1.g Know the definitions and basic properties of a circle and use them to prove basic theorems and solve problems

MA 12.2.2 Coordinate Geometry: Student will use coordinate geometry to analyze and describe relationships in the coordinate plane.

MA 12.2.2.a Use coordinate geometry to analyze geometric situations (e.g., parallel lines, perpendicular lines, circle equations)
MA 12.2.2.b Apply the midpoint formula
MA 12.2.2.c Apply the distance formula
MA 12.2.2.d Prove special types of triangles and quadrilaterals (e.g., right triangles, isosceles trapezoid, parallelogram, rectangle, square)

MA 12.2.3 Transformations: Students will apply and analyze transformations.

MA 12.2.3.a Explain and justify the effects of simple transformations on the ordered pairs of two-dimensional shapes
MA 12.2.3.b Perform and describe multiple transformations

MA 12.2.4 Spatial Modeling: Students will use visualization, spatial reasoning, and geometric modeling to solve problems.

MA 12.2.4.a Sketch and draw appropriate representations of geometric objects using ruler, protractor, or technology
MA 12.2.4.b Use geometric models to visualize, describe, and solve problems (e.g., find the height of a tree; find the amount of paint needed for a room; scale model)

MA 12.2.5 Measurement: Students will apply the units, systems, and formulas to solve problems.

MA 12.2.5.a Use strategies to find surface area and volume of complex objects
MA 12.2.5.b Apply appropriate units and scales to solve problems involving measurement
MA 12.2.5.c Convert between various units of area and volume, such as square feet to square yards
MA 12.2.5.d Convert equivalent rates (e.g., feet/second to miles/hour)

MA 12.2.5.e Find arc length and area of sectors of a circle
MA 12.2.5.f Determine surface area and volume of three-dimensional objects (e.g., spheres, cones, pyramids)
MA12.2.5.g Know that the effect of a scale factor k on length, area and volume is to multiply each by k, k^2 and k^3, respectively

MA 12.3 Students will communicate algebraic concepts using multiple representations to reason, solve problems, and make connections within mathematics and across disciplines.

MA 12.3.1 Relationships: Students will generalize, represent, and analyze relationships using algebraic symbols.

MA 12.3.1.a Represent, interpret, and analyze functions with graphs, tables, and algebraic notation and convert among these representations (e.g., linear, non-linear)
MA 12.3.1.b Identify domain and range of functions represented in either symbolic or graphical form (e.g., linear, non-linear)
MA 12.3.1.c Identify the slope and intercepts of a linear relationship from an equation or graph
MA 12.3.1.d Identify characteristics of linear and non-linear functions

MA 12.3.1.e Graph linear and non-linear functions
MA 12.3.1.f Compare and analyze the rate of change by using ordered pairs, tables, graphs, and equations
MA 12.3.1.g Graph and interpret linear inequalities
MA 12.3.1.h Represent, interpret, and analyze functions and their inverses
MA 12.3.1.i Determine if a relation is a function

MA 12.3.2 Modeling in Context: Students will model and analyze quantitative relationships.

MA 12.3.2.a Model contextualized problems using various representations (e.g., graphs, tables, one variable equalities, one variable inequalities, linear equations in slope intercept form, inequalities in slope intercept form, system of linear equations with two variables)
MA 12.3.2.b Represent a variety of quantitative relationships using linear equations and one variable inequalities
MA 12.3.2.c Analyze situations to determine the type of algebraic relationship (e.g., linear, nonlinear)
MA 12.3.2.d Model contextualized problems using various representations for non-linear functions (e.g., quadratic, exponential, square root, and absolute value)

MA 12.3.3 Procedures: Students will represent and solve equations and inequalities.

MA 12.3.3.a Explain/apply the reflexive, symmetric, and transitive properties of equality
MA 12.3.3.b Simplify algebraic expressions involving exponents (e.g., $(3x^4)^2$)

MA 12.3.3.c Add and subtract polynomials

MA 12.3.3.d Multiply and divide polynomials (e.g., divide $x^3 - 8$ by $x - 2$, divide $x^4 - 5x^3 - 2x$ by x^2)

MA 12.3.3.e Factor polynomials

MA 12.3.3.f Identify and generate equivalent forms of linear equations

MA 12.3.3.g Solve linear equations and inequalities including absolute value

MA 12.3.3.h Identify and explain the properties used in solving equations and inequalities

MA 12.3.3.i Solve quadratic equations (e.g., factoring, graphing, quadratic formula)
MA 12.3.3.j Add, subtract, and simplify rational expressions
MA 12.3.3.k Multiply, divide, and simplify rational expressions
MA 12.3.3.l Evaluate polynomial and rational expressions and expressions containing radicals and absolute values at specified values of their variables
MA 12.3.3.m Derive and use the formulas for the general term and summation of finite arithmetic and geometric series
MA 12.3.3.n Combine functions by composition, as well as by addition, subtraction, multiplication, and division
MA 12.3.3.o Solve an equation involving several variables for one variable in terms of the others
MA 12.3.3.p Analyze and solve systems of two linear equations in two variables algebraically and graphically

MA 12.4 Students will communicate data analysis/probability concepts using multiple representations to reason, solve problems, and make connections within mathematics and across disciplines.

MA 12.4.1 Display and Analysis: Students will formulate a question and design a survey or an experiment in which data is collected and displayed in a variety of formats, then select and use appropriate statistical methods to analyze the data.

MA 12.4.1.a Interpret data represented by the normal distribution and formulate conclusions
MA 12.4.1.b Compute, identify, and interpret measures of central tendency (mean, median, mode) when provided a graph or data set
MA 12.4.1.c Explain how sample size and transformations of data affect measures of central tendency
MA 12.4.1.d Describe the shape and determine spread (variance, standard deviation) and outliers of a data set
MA 12.4.1.e Explain how statistics are used or misused in the world
MA 12.4.1.f Create scatter plots, analyze patterns, and describe relationships in paired data
MA 12.4.1.g Explain the impact of sampling methods, bias, and the phrasing of questions asked during data collection and the conclusions that can rightfully be made
MA 12.4.1.h Explain the differences between randomized experiment and observational studies

MA 12.4.2 Predictions and Inferences: Students will develop and evaluate inferences to make predictions.

MA 12.4.2.a Compare data sets and evaluate conclusions using graphs and summary statistics
MA 12.4.2.b Support inferences with valid arguments

MA 12.4.2.c Develop linear equations for linear models to predict unobserved outcomes using regression line and correlation coefficient
MA 12.4.2.d Recognize when arguments based on data confuse correlation with causation

MA 12.4.3 Probability: Students will apply and analyze concepts of probability.

MA 12.4.3.a Construct a sample space and a probability distribution

MA 12.4.3.b Identify dependent and independent events and calculate their probabilities
MA 12.4.3.c Use the appropriate counting techniques to determine the probability of an event (e.g., combinations, permutations)

MA 12.4.3.d Analyze events to determine if they are mutually exclusive
MA 12.4.3.e Determine the relative frequency of a specified outcome of an event to estimate the probability of the outcome

SIX TRAIT CURRICULUM

The Johnson County Central Public School District endorses and implements the Six Traits model of writing instruction and assessment. It is an ongoing expectation that all faculty members will implement this mode of language instruction in their classroom.

Ideas- The writer's primary message, point of story, shoring details and clarity.
Organization-Putting information into an order that shows direction and purpose.
Voice-Includes the expression of a writer's personality; an awareness of the intended audience; and a skillful blend of detail, enthusiasm, and knowledge of the topic
Word Choice- Selecting, identifying, and revising specific descriptive language
Sentence Fluency- Smooth writing patterns and rhythmic flow of language

Conventions – Using appropriate editing and presentation skills

MULTICULTURAL EDUCATION

The instructional program at Johnson County Central Public Schools incorporates multicultural education in all curriculum areas at all grades. Multicultural education includes, but is not limited to, studies relative to the culture, history and contributions of African Americans, Hispanic Americans, Native Americans, Asian Americans and European Americans with special emphasis on human relations and sensibility toward all races.

These are the sections and topics covered during the year of College Algebra

R.1 Linear Equations and Rational Equations
R.4 Rational Exponents and Radicals
R.6 Factoring
1.1 Linear Equations and Rational Equations
1.2 Applications and Modeling with Linear Equations
1.3 Complex Numbers
1.4 Quadratic Equations
1.7 Linear Inequalities and Compound Inequalities
1.8 Absolute Value Equations and Inequalities
2.1 The Rectangular Coordinate System and Graphing Utilities
2.2 Circles
2.3 Functions and Relations
2.4 Linear Equations in Two Variables and Linear Functions
2.5 Applications of Linear Equations and Modeling
2.6 Transformations of Graphs
2.8 Algebra of Functions and Functions Composition
3.1 Quadratic Functions and Applications
3.2 Introduction to Polynomials Functions
3.3 Division of Polynomials and the Remainder and Factor Theorems
3.4 Zeros of Polynomials
3.5 Rational Functions
4.1 Inverse Functions
4.2 Exponential Functions
4.3 Logarithmic Functions
4.4 Properties of Logarithms
4.5 Exponential of Logarithmic Equations
4.6 Modeling with Exponential and Logarithmic Functions
5.1 Systems of Linear Equations in Two Variables and Applications
5.2 Systems of Linear Equations in Three Variables and Applications
5.6 Linear Programming
6.1 Solving Systems of Linear Equations Using Matrices
6.3 Operations on Matrices
6.5 Determinants and Cramer's Rule
8.1 Sequences and Series
8.2 Arithmetic Sequences and Series
8.3 Geometric Sequences and Series
8.6 Principles of Counting
8.7 Introduction to Probability

TITLE: STATISTICS/PRE-CALCULUS
GRADE LEVEL: $11^{TH} – 12^{TH}$

RESOURCE MATERIALS:

- Textbook: Advanced Mathematics A Precalculus Approach; Published by Prentice Hall; Ryan, Doubet, Fabricant & Rockhill; Copyright 1993
- Supplementary Resource Materials: Internet, worksheets, additional books
- TI-86 Calculator

CRITERIA FOR EVALUATION AND ASSESSMENT:

- oral assessment
- board work
- projects
- large and small group projects
- homework
- quizzes (written, on-line, clicker)
- tests
- school adopted state standards assessment

NEBRASKA STATE MATH STANDARDS:

MA 12.1 Students will communicate number sense concepts using multiple representations to reason, solve problems, and make connections within mathematics and across disciplines.

MA 12.1.1 Number System: Students will represent and show relationships among complex numbers.

MA 12.1.1.a Demonstrate multiple equivalent forms of irrational numbers (e.g.,)
MA 12.1.1.b Compare, contrast and apply the properties of numbers and the real number system, including rational, irrational, imaginary, and complex numbers

MA 12.1.2 Operations: Students will demonstrate the meaning and effects of arithmetic operations with real numbers.

MA 12.1.2.a Use drawings, words, and symbols to explain the effects of such operations as multiplication and division, and computing positive powers and roots on the magnitude of quantities (e.g., if you take the square root of a number, will the result always be smaller than the original number? (e.g.,))
MA 12.1.2.b Use drawings, words, and symbols to explain that the distance between two numbers on the number line is the absolute value of their difference

MA 12.1.3 Computation: Students will compute fluently and accurately using appropriate strategies and tools.

MA 12.1.3.a Compute accurately with real numbers
MA 12.1.3.b Simplify exponential expressions (e.g., powers of -1, 0, ½,)
MA 12.1.3.c Multiply and divide numbers using scientific notation
MA 12.1.3.d Select, apply, and explain the method of computation when problem solving using real numbers (e.g., models, mental computation, paper-pencil, or technology)

MA 12.1.4 Estimation: Students will estimate and check reasonableness of answers using appropriate strategies and tools.

MA 12.1.4.a Use estimation methods to check the reasonableness of real number computations and decide if the problem calls for an approximation or an exact number (e.g., 10 π (pi) is approximately 31.4, square and cube roots)
MA 12.1.4.b Distinguish relevant from irrelevant information, identify missing information and either find what is needed or make appropriate estimates

MA 12.2 Students will communicate geometric concepts and measurement concepts using multiple representations to reason, solve problems, and make connections within mathematics and across disciplines.

MA 12.2.1 Characteristics: Students will analyze characteristics, properties, and relationships among geometric shapes and objects.

MA12.2.1.a Identify and explain the necessity of and give examples of definitions and theorems
MA 12.2.1.b Analyze properties and relationships among classes of two and three dimensional geometric objects using inductive reasoning and counterexamples
MA 12.2.1 c State and prove geometric theorems using deductive reasoning (e.g., parallel lines with transversals, congruent triangles, similar triangles)
MA 12.2.1.d Apply geometric properties to solve problems (e.g., parallel lines, line transversals, similar triangles, congruent triangles, proportions)
MA 12.2.1.e Identify and apply right triangle relationships (e.g., sine, cosine, tangent, special right triangles, converse of Pythagorean Theorem)
MA 12.2.1.f Recognize that there are geometries, other than Euclidean geometry, in which the parallel postulate is not true
MA12.2.1.g Know the definitions and basic properties of a circle and use them to prove basic theorems and solve problems

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MA 12.2.3 Transformations: Students will apply and analyze transformations.

MA 12.2.3.a Explain and justify the effects of simple transformations on the ordered pairs of two-dimensional shapes
MA 12.2.3.b Perform and describe multiple transformations

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MA12.2.5.g Know that the effect of a scale factor k on length, area and volume is to multiply each by k, k^2 and k^3, respectively

MA 12.3 Students will communicate algebraic concepts using multiple representations to reason, solve problems, and make connections within mathematics and across disciplines.

MA 12.3.1 Relationships: Students will generalize, represent, and analyze relationships using algebraic symbols.

NON LINEAR FUNCTIONS INCLUDE: QUADRATIC, ABSOLUTE VALUE, SQUARE ROOT, EXPONENTIAL
MA 12.3.1.a Represent, interpret, and analyze functions with graphs, tables, and algebraic notation and convert among these representations (e.g., linear, non-linear)
MA 12.3.1.b Identify domain and range of functions represented in either symbolic or graphical form (e.g., linear, non-linear)
MA 12.3.1.c Identify the slope and intercepts of a linear relationship from an equation or graph
MA 12.3.1.d Identify characteristics of linear and non-linear functions
MA 12.3.1.e Graph linear and non-linear functions
MA 12.3.1.f Compare and analyze the rate of change by using ordered pairs, tables, graphs, and equations
MA 12.3.1.g Graph and interpret linear inequalities
MA 12.3.1.h Represent, interpret, and analyze functions and their inverses
MA 12.3.1.i Determine if a relation is a function

MA 12.3.2 Modeling in Context: Students will model and analyze quantitative relationships.

CONTEXTUALIZED PROBLEM – A MATHEMATICAL SITUATION PLACED IN A PARTICULAR CONTEXT (E.G., USING WORDS, DIAGRAMS, TABLES, DRAWINGS, ETC.)

MA 12.3.2.a Model contextualized problems using various representations (e.g., graphs, tables, one variable equalities, one variable inequalities, linear equations in slope intercept form, inequalities in slope intercept form, system of linear equations with two variables)

MA 12.3.2.b Represent a variety of quantitative relationships using linear equations and one variable inequalities

MA 12.3.2.c Analyze situations to determine the type of algebraic relationship (e.g., linear, nonlinear)

MA 12.3.2.d Model contextualized problems using various representations for non-linear functions (e.g., quadratic, exponential, square root, and absolute value)

MA 12.3.3 Procedures: Students will represent and solve equations and inequalities.

MA 12.3.3.a Explain/apply the reflexive, symmetric, and transitive properties of equality

MA 12.3.3.b Simplify algebraic expressions involving exponents (e.g., $(3x_4)_2$)

MA 12.3.3.c Add and subtract polynomials

MA 12.3.3.d Multiply and divide polynomials (e.g., divide $x_3 – 8$ by $x – 2$, divide $x_4 – 5x_3 – 2x$ by x_2)

MA 12.3.3.e Factor polynomials

MA 12.3.3.f Identify and generate equivalent forms of linear equations

MA 12.3.3.g Solve linear equations and inequalities including absolute value

MA 12.3.3.h Identify and explain the properties used in solving equations and inequalities

MA 12.3.3.i Solve quadratic equations (e.g., factoring, graphing, quadratic formula)

MA 12.3.3.j Add, subtract, and simplify rational expressions

MA 12.3.3.k Multiply, divide, and simplify rational expressions

MA 12.3.3.l Evaluate polynomial and rational expressions and expressions containing radicals and absolute values at specified values of their variables

MA 12.3.3.m Derive and use the formulas for the general term and summation of finite arithmetic and geometric series

MA 12.3.3.n Combine functions by composition, as well as by addition, subtraction, multiplication, and division

MA 12.3.3.o Solve an equation involving several variables for one variable in terms of the others

MA 12.3.3.p Analyze and solve systems of two linear equations in two variables algebraically and graphically

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MA 12.4.1.h Explain the differences between randomized experiment and observational studies

MA 12.4.2 Predictions and Inferences: Students will develop and evaluate inferences to make predictions.

MA 12.4.2.a Compare data sets and evaluate conclusions using graphs and summary statistics

MA 12.4.2.b Support inferences with valid arguments

MA 12.4.2.c Develop linear equations for linear models to predict unobserved outcomes using regression line and correlation coefficient

MA 12.4.2.d Recognize when arguments based on data confuse correlation with causation

MA 12.4.3 Probability: Students will apply and analyze concepts of probability.

MA 12.4.3.a Construct a sample space and a probability distribution

MA 12.4.3.b Identify dependent and independent events and calculate their probabilities

MA 12.4.3.c Use the appropriate counting techniques to determine the probability of an event (e.g., combinations, permutations)

MA 12.4.3.d Analyze events to determine if they are mutually exclusive

MA 12.4.3.e Determine the relative frequency of a specified outcome of an event to estimate the probability of the outcome

SIX TRAIT CURRICULUM

The Johnson County Central Public School District endorses and implements the Six Traits model of writing instruction and assessment. It is an ongoing expectation that all faculty members will implement this mode of language instruction in their classroom.

IDEA	The writer's primary message, point of story, showing details and clarity
ORANIZATION	Putting information into an order that shows direction and purpose
VOICE	Includes the expression of a writer's personality; an awareness of the intended audience; and a skillful blend of detail, enthusiasm, and knowledge of the topic.
WORD CHOICE	Selecting, identifying, and revising specific descriptive language
SENTENCE FLUENCY	Smooth writing patterns and rhythmic flow of language
CONVENTIONS	Using appropriate editing and presentation skills

Criteria for Evaluation and Assessment:

1. Essay questions on quizzes follow this model.
2. Develop and write a short story that incorporate three math concepts taught during the year. The concepts are to play key roles in the story.
3. Use district assessment form to implement six trait writing in the classroom.
4. Put visual aide material up in classroom to promote the six traits.
5. Administer appropriate rubrics and assessments.

MULTICULTURAL EDUCATION

The instructional program at Johnson County Central incorporates multicultural education in all curriculum areas at all grades. Multicultural education includes, but is not limited to studies relative to culture, history, and contribution of African Americans, Hispanic Americans, Native Americans, Asian Americans and European Americans with special emphasis on human relations and sensitivity toward all races.

Criteria For Evaluation and Assessments:

1. A district assessment form is used to document multicultural education in the classroom
2. An annual status report is provided to the local board of education

DESCRIPTIVE STATISTICS

- **ORGANIZING AND PICTURING DATA**
  - Obtaining Data – terminology: match, identify
  - Graphs: create, interpret
    - Dot Plots
    - Stem-and Leaf Plots
    - Histograms
    - Bar Graphs
    - Pie Graphs
  - Comparisons: interpret, draw conclusions
    - Double Stem-and-Leaf Plots

        - Multiple-Bar Graphs
        - Multiple-Line Graphs
        - Multiple Pie Graphs
        - Proportional Bar Graphs
    - Selecting appropriate graphs: identify appropriate, interpret
    - Enhancement, Distraction, and Distortion
        - Scaling and Axis Manipulation: identify, apply, interpret
        - Line Graphs and Cropping: identify, apply, interpret
        - Three-Dimensional Effects: identify, apply, interpret
        - Pictographs: identify, apply, interpret
        - Graphical Maps: identify, apply, interpret

- **<u>COLLECTING AND INTERPRETING DATA</u>**
    - Populations, Samples, and Data
        - Populations and Samples: define, identify, match
        - Data and Bias: identify types
        - Simple Random Samples: choose random sample, identify
    - Survey Sampling Method
        - Independent Sampling: find, determine, apply
        - Systematic Sampling: find, determine, apply
        - Quota Sampling: find, determine, apply
        - Stratified Sampling: find, determine, apply
        - Cluster Sampling: find, determine, apply
    - Measures of Central Tendency and Variability
        - Sample and Population Mean: calculate, interpret
        - Median: calculate, interpret
        - Mode: calculate, interpret
        - Range: calculate, interpret
        - Skewed Distributions: identify, graph
        - Weighted Mean: calculate, interpret
        - Quartiles and Interquartile Range: calculate, interpret
            - Box-n-Whisker Plots: create, read, interpret
        - Variance and Standard Deviation
            - Population Variance and Standard Deviation: calculate, interpret
            - Sample Variance and Standard Deviation: calculate, interpret
- **<u>PROBABILITY</u>**
    - Computing Probabilities in Simple Experiments
        - Sample Space and Events: define, identify, represent
        - Experimental Probability: define, test, evaluate
        - Theoretical Probability: compute, interpret, simplify
        - Mutually Exclusive Events: define, identify, interpret
        - Complement of an Event: define, determine, evaluate
        - Properties of Probability: define, apply, evaluate
    - Computing Probabilities in Multistage Experiments
        - Tree Diagrams: create, evaluate, interpret
        - Fundamental Counting Principle: define, apply, interpret, evaluate
        - Probability Tree Diagrams and Their Properties: draw, apply, interpret, evaluate
    - Conditional Probability, Expected Value, and Odds
        - Conditional Probability: define, apply, calculate, interpret

        - Independent Events: define, apply, calculate, interpret
        - Expected Value: define, apply, calculate, interpret
        - Odds: define, apply, calculate, interpret

- **INFERENTIAL STATISTICS**
    - Normal Distribution
        - Distributions of Large Sets of Data:
        - Normal Distributions: define, sketch, identify
        - Standard Normal Distribution: define, sketch, interpret
        - Area Under the Standard Normal Distribution Curve: calculate, identify, interpret
        - Symmetry and Tables for the Normal Distribution: apply, calculate, interpret
    - Applications of Normal Distributions
        - Relationship Among Normal Distributions: interpret, evaluate
        - 68-95-99.7 Rule for Normal Distribution: evaluate, find, interpret
        - Population z-Scores: calculate, evaluate, interpret
    - Confidence Intervals and Reliable Estimation
        - Sample Proportion: define, calculate, interpret
        - Standard Error: define, calculate, interpret
    - Comparisons: interpret, draw conclusions
        - Double Stem-and-Leaf Plots
        - Multiple-Bar Graphs
        - Multiple-Line Graphs
        - Multiple Pie Graphs
        - Proportional Bar Graphs
    - Selecting appropriate graphs: identify appropriate, interpret
    - Enhancement, Distraction, and Distortion
        - Scaling and Axis Manipulation: identify, apply, interpret
        - Line Graphs and Cropping: identify, apply, interpret
        - Three-Dimensional Effects: identify, apply, interpret
        - Pictographs: identify, apply, interpret
        - Graphical Maps: identify, apply, interpret

PRECALCULUS CURRICULUM

EXPONENTIAL AND LOGARITHMIC FUNCTIONS

- Rational Exponents
    - Properties of Integer Exponents: apply, simplify expressions, evaluate expressions
- Exponential Functions
    - Graphing
        - Domain and Range: identify
        - Translations: identify and match graphs, graph, state translations
        - Asymptotes: find asymptotes, graph
        - Natural Exponential Functions: graph
    - Solving
        - Techniques for Solving: apply, solve and check
- Logarithmic Functions
    - Graphing
        - Domain and Range: identify

        - Effects of Base Change: identify and match graphs
        - Translations: identify and match graphs, graph, state translations
        - Asymptotes: find asymptotes, graph
    - Change-of-Base Formula: convert between bases
- Logarithms
    - Properties of Logarithms: apply for expanding or condensing, simplify expressions
    - Solving Logarithmic Equations: solve and find valid solutions
    - Solving using Graphing Utility: approximate solutions using technology
- Exponential Equations and Inequalities
    - Use logarithms to Solve Exponential Equations: apply, solve, check
    - Solving using Graphing Utility: approximate solutions using technology
- Applied Problems involving Exponential and Logarithmic Equations:
    - Exponential Growth and Decay Models: apply, solve, check

MATRICES

- Addition of Matrices
    - Terminology: identify, match
    - Sums and Difference of Two or More Matrices: simplify
    - Properties of Matrix Addition: identify, give examples
    - Product of a Matrix and a Scalar: simplify
    - Properties of Scalar Multiplication: identify, give examples
- Multiplication of Matrices
    - Find the Product of Two or More Matrices: evaluate, simplify
    - Properties of Matrix Multiplication for Square Matrices: identify, give examples
- Directed Graphs
    - Represent Problems: create directed graph
    - Matrices: construct from directed graph
    - Directed Graph: construct from matrix
- Inverses of Matrices
    - Multiplicative Inverse of a Matrix: identify if it is possible, evaluate
- Systems of Equations
    - Matrix Row Operations: identify, apply
    - Row Echelon Form: identify, apply
    - System of "m" Equations in "n" Variables: apply, solve, interpret
    - Inverses to Solve Systems: apply, solve
- Augmented Matrix Solutions
    - Solving Systems of Three Equation: apply, solve
- Matrix and Transformation
    - Transformation Matrices to Find Image of a Point or Points Under a Reflection or Rotation: apply, evaluate, graph, identify transformation matrices

DETERMINANTS

- Determinants of 2x2 Matrices: evaluate
- Determinants of 3x3 Matrices: evaluate
- Determents using Minors: apply, evaluate
- Cramer's Rule for Systems of Equations: apply, solve
- # of Relays and Communications: find relays, interpret

CONIC SECTIONS

- Circle
  - Define
  - Equations: derive, identify, find equations, graph
  - Center, Radius: identify
  - Applications of Circles: solve
- Ellipse
  - Define
  - Equations: derive, identify, find equations, graph
  - Focii, Vertices, Center, Major/Minor Axis, Semi-Major/Minor Axis: identify, solve
  - Applications of Ellipses: solve
- Hyperbola
  - Define
  - Equations: derive, identify, find equations, graph
  - Focii, Intercepts, and Asymptotes: identify, solve
  - Applications of Hyperbolas: solve
- Parabola
  - Define
  - Equations: derive, identify, find equations, graph
  - Vertex, Focus, Directrix, Axis of Symmetry: identify, solve
  - Applications of Parabolas: solve
- Translations of Axes and the General Form of the Conic Equation
  - Translation Formulas: simplify
- Solving Quadratic Systems
  - Solving Systems involving Conics and/or Linear Equations: apply techniques, solve; graph
- Tangents and Normals to Conic Sections
  - Slopes of Tangents to Conic Sections: determine
  - Slopes of Normals to Conic Sections: determine
  - Equations of Tangents to Conic Sections: find equations
  - Equations of Normals to Conic Sections: find equations

MODULAR ARITHMETIC

- Division Algorithm: define
- Congruence Modulo: define
- Modular Arithmetic: apply, simplify
- Encryption: define, apply

LIMITS AND CONTINUITY

- Limits of Functions
  - Informal Definition of Limit: define
  - Limits and Function Values: find, evaluate
  - Nonexistence of Limits: discuss, find
  - Properties of Limits: define, apply, evaluate
  - Limits of Polynomial Functions: evaluate
  - Limits of Rational Functions: evaluate
  - Limit Theorem: define, evaluate
  - One-sided Limits: compute, evaluate
  - Two-sided Limits: determine, evaluate

TITLE: CALCULUS
GRADE LEVEL: 12TH

RESOURCE MATERIALS:

- Textbook: Calculus with Analytic Geometry 4th Edition; Edwards & Penney; Published by Prentice Hall; Copyright 1994
- Supplementary Resource Materials: Internet, worksheets, additional books
- TI-92 Calculator

CRITERIA FOR EVALUATION AND ASSESSMENT:

- oral assessment
- board work
- projects
- large and small group projects
- homework
- quizzes (written, on-line, clicker)
- tests
- school adopted state standards assessment

NEBRASKA STATE MATH STANDARDS:

MA 12.1 Students will communicate number sense concepts using multiple representations to reason, solve problems, and make connections within mathematics and across disciplines.

MA 12.1.1 Number System: Students will represent and show relationships among complex numbers.

MA 12.1.1.a Demonstrate multiple equivalent forms of irrational numbers (e.g.,)
MA 12.1.1.b Compare, contrast and apply the properties of numbers and the real number system, including rational, irrational, imaginary, and complex numbers

MA 12.1.2 Operations: Students will demonstrate the meaning and effects of arithmetic operations with real numbers.

MA 12.1.2.a Use drawings, words, and symbols to explain the effects of such operations as multiplication and division, and computing positive powers and roots on the magnitude of quantities (e.g., if you take the square root of a number, will the result always be smaller than the original number? (e.g.,))
MA 12.1.2.b Use drawings, words, and symbols to explain that the distance between two numbers on the number line is the absolute value of their difference

MA 12.1.3 Computation: Students will compute fluently and accurately using appropriate strategies and tools.

MA 12.1.3.a Compute accurately with real numbers
MA 12.1.3.b Simplify exponential expressions (e.g., powers of -1, 0, ½,)
MA 12.1.3.c Multiply and divide numbers using scientific notation
MA 12.1.3.d Select, apply, and explain the method of computation when problem solving using real numbers (e.g., models, mental computation, paper-pencil, or technology)

MA 12.1.4 Estimation: Students will estimate and check reasonableness of answers using appropriate strategies and tools.

MA 12.1.4.a Use estimation methods to check the reasonableness of real number computations and decide if the problem calls for an approximation or an exact number (e.g., 10 π (pi) is approximately 31.4, square and cube roots)
MA 12.1.4.b Distinguish relevant from irrelevant information, identify missing information and either find what is needed or make appropriate estimates

MA 12.2 Students will communicate geometric concepts and measurement concepts using multiple representations to reason, solve problems, and make connections within mathematics and across disciplines.

MA 12.2.1 Characteristics: Students will analyze characteristics, properties, and relationships among geometric shapes and objects.

MA12.2.1.a Identify and explain the necessity of and give examples of definitions and theorems
MA 12.2.1.b Analyze properties and relationships among classes of two and three dimensional geometric objects using inductive reasoning and counterexamples
MA 12.2.1 c State and prove geometric theorems using deductive reasoning (e.g., parallel lines with transversals, congruent triangles, similar triangles)
MA 12.2.1.d Apply geometric properties to solve problems (e.g., parallel lines, line transversals, similar triangles, congruent triangles, proportions)
MA 12.2.1.e Identify and apply right triangle relationships (e.g., sine, cosine, tangent, special right triangles, converse of Pythagorean Theorem)
MA 12.2.1.f Recognize that there are geometries, other than Euclidean geometry, in which the parallel postulate is not true
MA12.2.1.g Know the definitions and basic properties of a circle and use them to prove basic theorems and solve problems

MA 12.2.2 Coordinate Geometry: Student will use coordinate geometry to analyze and describe relationships in the coordinate plane.

MA 12.2.2.a Use coordinate geometry to analyze geometric situations (e.g., parallel lines, perpendicular lines, circle equations)
MA 12.2.2.b Apply the midpoint formula
MA 12.2.2.c Apply the distance formula
MA 12.2.2.d Prove special types of triangles and quadrilaterals (e.g., right triangles, isosceles trapezoid, parallelogram, rectangle, square)

MA 12.2.3 Transformations: Students will apply and analyze transformations.

MA 12.2.3.a Explain and justify the effects of simple transformations on the ordered pairs of two-dimensional shapes
MA 12.2.3.b Perform and describe multiple transformations

MA 12.2.4 Spatial Modeling: Students will use visualization, spatial reasoning, and geometric modeling to solve problems.

MA 12.2.4.a Sketch and draw appropriate representations of geometric objects using ruler, protractor, or technology
MA 12.2.4.b Use geometric models to visualize, describe, and solve problems (e.g., find the height of a tree; find the amount of paint needed for a room; scale model)

MA 12.2.5 Measurement: Students will apply the units, systems, and formulas to solve problems.

MA 12.2.5.a Use strategies to find surface area and volume of complex objects
MA 12.2.5.b Apply appropriate units and scales to solve problems involving measurement
MA 12.2.5.c Convert between various units of area and volume, such as square feet to square yards
MA 12.2.5.d Convert equivalent rates (e.g., feet/second to miles/hour)
MA 12.2.5.e Find arc length and area of sectors of a circle
MA 12.2.5.f Determine surface area and volume of three-dimensional objects (e.g., spheres, cones, pyramids)
MA12.2.5.g Know that the effect of a scale factor k on length, area and volume is to multiply each by k, k^2 and k^3, respectively

MA 12.3 Students will communicate algebraic concepts using multiple representations to reason, solve problems, and make connections within mathematics and across disciplines.

MA 12.3.1 Relationships: Students will generalize, represent, and analyze relationships using algebraic symbols.

NON LINEAR FUNCTIONS INCLUDE: QUADRATIC, ABSOLUTE VALUE, SQUARE ROOT, EXPONENTIAL
MA 12.3.1.a Represent, interpret, and analyze functions with graphs, tables, and algebraic notation and convert among these representations (e.g., linear, non-linear)
MA 12.3.1.b Identify domain and range of functions represented in either symbolic or graphical form (e.g., linear, non-linear)
MA 12.3.1.c Identify the slope and intercepts of a linear relationship from an equation or graph
MA 12.3.1.d Identify characteristics of linear and non-linear functions
MA 12.3.1.e Graph linear and non-linear functions
MA 12.3.1.f Compare and analyze the rate of change by using ordered pairs, tables, graphs, and equations
MA 12.3.1.g Graph and interpret linear inequalities
MA 12.3.1.h Represent, interpret, and analyze functions and their inverses
MA 12.3.1.i Determine if a relation is a function

MA 12.3.2 Modeling in Context: Students will model and analyze quantitative relationships.

CONTEXTUALIZED PROBLEM – A MATHEMATICAL SITUATION PLACED IN A PARTICULAR CONTEXT (E.G., USING WORDS, DIAGRAMS, TABLES, DRAWINGS, ETC.)

MA 12.3.2.a Model contextualized problems using various representations (e.g., graphs, tables, one variable equalities, one variable inequalities, linear equations in slope intercept form, inequalities in slope intercept form, system of linear equations with two variables)

MA 12.3.2.b Represent a variety of quantitative relationships using linear equations and one variable inequalities

MA 12.3.2.c Analyze situations to determine the type of algebraic relationship (e.g., linear, nonlinear)

MA 12.3.2.d Model contextualized problems using various representations for non-linear functions (e.g., quadratic, exponential, square root, and absolute value)

MA 12.3.3 Procedures: Students will represent and solve equations and inequalities.

MA 12.3.3.a Explain/apply the reflexive, symmetric, and transitive properties of equality

MA 12.3.3.b Simplify algebraic expressions involving exponents (e.g., $(3x_4)_2$)

MA 12.3.3.c Add and subtract polynomials

MA 12.3.3.d Multiply and divide polynomials (e.g., divide $x_3 – 8$ by $x – 2$, divide $x_4 – 5x_3 – 2x$ by x_2)

MA 12.3.3.e Factor polynomials

MA 12.3.3.f Identify and generate equivalent forms of linear equations

MA 12.3.3.g Solve linear equations and inequalities including absolute value

MA 12.3.3.h Identify and explain the properties used in solving equations and inequalities

MA 12.3.3.i Solve quadratic equations (e.g., factoring, graphing, quadratic formula)

MA 12.3.3.j Add, subtract, and simplify rational expressions

MA 12.3.3.k Multiply, divide, and simplify rational expressions

MA 12.3.3.l Evaluate polynomial and rational expressions and expressions containing radicals and absolute values at specified values of their variables

MA 12.3.3.m Derive and use the formulas for the general term and summation of finite arithmetic and geometric series

MA 12.3.3.n Combine functions by composition, as well as by addition, subtraction, multiplication, and division

MA 12.3.3.o Solve an equation involving several variables for one variable in terms of the others

MA 12.3.3.p Analyze and solve systems of two linear equations in two variables algebraically and graphically

MA 12.4 Students will communicate data analysis/probability concepts using multiple representations to reason, solve problems, and make connections within mathematics and across disciplines.

MA 12.4.1 Display and Analysis: Students will formulate a question and design a survey or an experiment in which data is collected and displayed in a variety of formats, then select and use appropriate statistical methods to analyze the data.

MA 12.4.1.a Interpret data represented by the normal distribution and formulate conclusions

MA 12.4.1.b Compute, identify, and interpret measures of central tendency (mean, median, mode) when provided a graph or data set

MA 12.4.1.c Explain how sample size and transformations of data affect measures of central tendency

MA 12.4.1.d Describe the shape and determine spread (variance, standard deviation) and outliers of a data set

MA 12.4.1.e Explain how statistics are used or misused in the world

MA 12.4.1.f Create scatter plots, analyze patterns, and describe relationships in paired data

MA 12.4.1.g Explain the impact of sampling methods, bias, and the phrasing of questions asked during data collection and the conclusions that can rightfully be made

MA 12.4.1.h Explain the differences between randomized experiment and observational studies

MA 12.4.2 Predictions and Inferences: Students will develop and evaluate inferences to make predictions.

MA 12.4.2.a Compare data sets and evaluate conclusions using graphs and summary statistics

MA 12.4.2.b Support inferences with valid arguments

MA 12.4.2.c Develop linear equations for linear models to predict unobserved outcomes using regression line and correlation coefficient

MA 12.4.2.d Recognize when arguments based on data confuse correlation with causation

MA 12.4.3 Probability: Students will apply and analyze concepts of probability.

MA 12.4.3.a Construct a sample space and a probability distribution

MA 12.4.3.b Identify dependent and independent events and calculate their probabilities

MA 12.4.3.c Use the appropriate counting techniques to determine the probability of an event (e.g., combinations, permutations)

MA 12.4.3.d Analyze events to determine if they are mutually exclusive

MA 12.4.3.e Determine the relative frequency of a specified outcome of an event to estimate the probability of the outcome

SIX TRAIT CURRICULUM

The Johnson County Central Public School District endorses and implements the Six Traits model of writing instruction and assessment. It is an ongoing expectation that all faculty members will implement this mode of language instruction in their classroom.

IDEA	The writer's primary message, point of story, showing details and clarity
ORANIZATION	Putting information into an order that shows direction and purpose
VOICE	Includes the expression of a writer's personality; an awareness of the intended audience; and a skillful blend of detail, enthusiasm, and knowledge of the topic.
WORD CHOICE	Selecting, identifying, and revising specific descriptive language
SENTENCE FLUENCY	Smooth writing patterns and rhythmic flow of language
CONVENTIONS	Using appropriate editing and presentation skills

Criteria for Evaluation and Assessment:

1. Essay questions on quizzes follow this model.
2. Develop and write a short story that incorporate three math concepts taught during the year. The concepts are to play key roles in the story.
3. Use district assessment form to implement six trait writing in the classroom.
4. Put visual aide material up in classroom to promote the six traits.
5. Administer appropriate rubrics and assessments.

MULTICULTURAL EDUCATION

The instructional program at Johnson County Central incorporates multicultural education in all curriculum areas at all grades. Multicultural education includes, but is not limited to studies relative to culture, history, and contribution of African Americans, Hispanic Americans, Native Americans, Asian Americans and European Americans with special emphasis on human relations and sensitivity toward all races.

Criteria For Evaluation and Assessments:

1. A district assessment form is used to document multicultural education in the classroom
2. An annual status report is provided to the local board of education

CALCULUS CURRICULUM

FUNCTIONS AND GRAPHS

- Functions and Real Numbers
  - Real Numbers: identify and express
  - Absolute Value: define, simplify expressions
  - Interval Notations: read, graph
  - Functions: evaluating, expressing in terms of, greatest integer function
  - Function Applications: applied geometrical or physical situations
- Cartesian Coordinate Plane and Lines
  - Distance Formula: proof, applications
  - Lines and Slopes: definition, determine and/or find slopes

    - Equations of Lines: develop formulas; find equation given two points, point and slope; vertical and horizontal lines
    - Parallel and Perpendicular Lines: identify parallel and perpendicular lines, find equations of parallel/perpendicular lines given points, point and equation, two equations
- Graphs of Equations and Functions
    - Graphs of Functions: identify and graph equations of circles, absolute value functions, greatest integer functions
    - Parabolas: identify, develop equations, graph
    - Applications of Quadratic Functions
- Brief Catalog of Functions
    - Combination of Functions: adding, subtracting, multiplying and dividing functions; determining domain and range
    - Polynomials: define, determine zeros
    - Rational Functions: define; graph using asymptotes, zeros and number of roots
    - Trigonometric Functions: review of graphs of trigonometric functions
    - Exponential and Logarithmic Functions: graph, identify effect of base on graph

TANGENT LINES AND THE DERIVATIVES

- Secants to Curves
    - Secants: define, find equations using two points
    - Average Rate of Change: define, evaluate expressions, apply formula
- Tangent Lines and the Derivative
    - Tangents: define, determine relationship to secants
    - Instantaneous Rate of Change: define, apply limits to ARC, recognize notations
    - Normal Lines: define, find equations
- The Limit Concept
    - Idea of a Limit: define; investigate results of a function as x approaches a constant
- The Limit Laws
    - Constant Law
    - Sum Law
    - Product Law
    - Quotient Law
    - Root Law
    - Substitution of Limits: evaluate using substitution; apply substitution law
- More about Limits
    - Basic Trigonometric Limits: define, evaluate limits of (sinx)/x
    - Squeeze Law of Limits
    - One-Sided Limits: evaluate limits – right-hand, left-hand and two-sided limits
    - Infinite Limits: define, evaluate, investigate function behavior
- The Concept of Continuity
    - Continuity at a point: identify continuity verse discontinuity
    - Composition of Continuous Functions: compose functions – graph, identify domain and range
    - Continuity and Differentiability: identify if functions are differentiable based on continuity

THE DERIVATIVE AND RATES OF CHANGE

- The Derivative and Rates of Change
  - Derivative: define, evaluate using definition, identify notations
  - Rates of Change: Average Rate of Change and Instantaneous Rates of Change: identify when to use ARC and IRC
  - Velocity and Acceleration: apply ARC and IRC
- Basic Differentiation Rules
  - Derivatives of Polynomials: derive, evaluate
  - Power Rule: derive, evaluate
  - Derivatives of Linear Combinations: derive, evaluate
  - Product and Quotient Rules: derive, evaluate
  - Reciprocal Rules: derive, evaluate
  - Applications: find slopes of tangents to curves
- Basic Differentiation Rules
  - Derivatives of Polynomials: derive, evaluate
- The Chain Rule
  - Chain Rule: proof, evaluate
  - Generalized Power Rule: evaluate
  - Rate-of-Change Applications: expressing functions in terms of, determine ARC
- Derivatives of Algebraic Functions
  - Generalized Power Rule: evaluate
- Maxima and Minima of Functions
  - Local Maxima and Minima: identify, evaluate, graph over closed interval and all real numbers
  - Absolute Maxima and Minima: identify, evaluate, graph over closed interval and all real numbers
- Applied Maximums – Minimum Problems
  - Maximize / Minimize: solve, identify maximum and minimum
- Derivatives of Trigonometric Functions
  - Sin, Cos, Tan, Csc, Sec, Ctn: evaluate
  - Trigonometric Functions using Chain Rule Formulas: derive, evaluate
  - Applications: Instantaneous Rates of Change with Trigonometric Functions: evaluate
- Implicit Differentiation and Related Rates
  - Implicit Differentiation: find dy/dx implicitly; equations of tangents
  - Related Rates Applications: evaluate with implicit differentiation

THE FIRST DERIVATIVE TEST

- Absolute Maximum and Minimum Values
  - First Derivative Test for Local Extrema: evaluate and identify maximums and minimums
  - First Derivative Test for Global Extrema: evaluate and identify maximums and minimums
  - Classification of Critical Points: identify and classify critical points
  - Applying First Derivative Test: apply, evaluate and identify minimums and maximums
- Simple Curve Sketching
  - Intervals and Behavior: identify increasing, decreasing behavior based on first derivative test, sketch curves, identify critical points, match graphs with equations

- High Derivatives and Concavity
    - Higher Derivatives: evaluate the nth derivative
    - Second Derivative Test: evaluate and determine maximums, minimums, and
    - Concavity and Curve Sketching: evaluate and determine concavity and inflection points
- Sketching and Asymptotes:
    - Vertical Asymptotes: identify using limits, equations of, sketch
    - Limits at Infinity: evaluate
    - Horizontal Asymptotes: identify, equations of, sketch
    - Oblique Asymptotes: identify, equations of, sketch

INTEGRALS

- Antiderivatives
    - Antiderivatie: define
    - Integral Formulas: evaluate
- Elementary Area Computations
    - Areas Under Graph:
        - Rectangle: calculate
        - Trapezoid: calculate
- Evaluation of Integrals
    - Evaluation Theorem: apply and evaluate
    - Basic Properties of Definite Integrals: evaluate
        - Integral of a Constant
        - Constant Multiple Property
        - Interval Union Property
- Integration by Substitution
    - Substitution: evaluate
    - Trigonometric Integrals Formulas: evaluate
    - Substitution in Definite Integrals: apply and evaluate
- Integration by Substitution
    - Substitution: evaluate
    - Trigonometric Integrals Formulas: evaluate
- Areas of Plane Regions
    - Area Between Two Curve: determine area
    - Subdividing Regions Before Integrating: subdivide and determine area
    - Determining Area by Integrating with Respect to y: determine what to integrate with respect to

APPLICATION OF INTEGRALS

- Volumes by the Method of Cross Sections
    - Solids of Revolution – Disks and Washers: determine cross section, apply and determine volume, sketch
    - Revolving the Region Between Two Curves: sketch, cross section, apply and determine volume
- Volumes by the Method of Cylindrical Shells
    - Revolving the Region Between Two Curves: determine cross section, apply and determine volume, sketch

EXPONENTIAL AND LOGARITHMIC FUNCTIONS

- Exponentials, Logarithmic and Inverse Functions
    - Exponential Functions: apply laws, evaluate

    - Derivatives of Exponential Functions: derive, evaluate
    - Inverse Functions: define, solve
    - Derivatives of Logarithmic Functions: derive, evaluate
- The Natural Logarithm
    - Graph of $y = \ln x$: identify, graph
    - Derivatives of Integrals involving Logarithms: derive, apply laws, evaluate
- The Exponential Function
    - Derivatives and Integrals of Exponentials: derive, evaluate
- General Exponential and Logarithmic Functions
    - Logarithmic and Exponentials: evaluate

CONIC SECTIONS

- The Parabola
    - Equations and Parts: identify, develop equations
    - Applications of Parabolas: apply and solve
- The Circle
    - Equations and Parts: identify, develop equations
    - Applications of Circle: apply and solve
- The Ellipse
    - Equations and Parts: identify, develop equations
    - Applications of Ellipses: apply and solve
- The Hyperbola
    - Equations and Parts: identify, develop equations
    - Applications of Hyperbolas: apply and solve

LIMITS AND CONTINUITY

- Limits of Functions
    - Informal Definition of Limit: define
    - Limits and Function Values: find, evaluate
    - Nonexistence of Limits: discuss, find
    - Properties of Limits: define, apply, evaluate
    - Limits of Polynomial Functions: evaluate
    - Limits of Rational Functions: evaluate
    - Limit Theorem: define, evaluate
    - One-sided Limits: compute, evaluate
    - Two-sided Limits: determine, evaluate
- The Formal Definition of Limit
    - Definition of Limit: define
- Continuity
    - Continuity Defined: define
    - Continuity of Special Functions: recognize
    - Continuity from the Left and Right: show, apply
    - Continuity on an Interval: discuss, find
    - Properties of Continuous Functions: define, prove, apply
- Limits Involving Infinity
    - Infinite Limits: describe, evaluate
    - Vertical Asymptotes: determine, graph
    - Horizontal Asymptotes: determine, graph
    - Limits of a Constant: define
    - Properties of Limits at Infinity: define, apply, evaluate
    - Limit Theorem: define, find, evaluate

TITLE: **ENGLISH I**
GRADE: **9TH**

RESOURCE MATERIALS: Text-*Literature* Grade 9 (Holt - McDougal), Novels, Films, Handouts, Support Literature

CRITERIA FOR EVALUATION AND ASSESSMENT: Tests, Quizzes, Class Work, Discussions, Group Activities, Research Reports, Independent Projects

STATE STANDARDS:

Grades 9-10

LA 10.1 Reading: Students will learn and apply reading skills and strategies to comprehend text.

LA 10.1.1	**Concepts of Print:** Students will demonstrate knowledge of the concepts of print.
	Mastered in Grade 1 and blended with other skills at this grade level.
LA 10.1.2	**Phonological Awareness:** Students will demonstrate phonological awareness through oral activities.
	Mastered in Grade 1 and blended with other skills at this grade level.
LA 10.1.3	**Word Analysis:** Students will use phonetic analysis to read and write grade-level text.
LA 10.1.3.a	Know and apply phonetic and structural analysis (e.g., Greek and Latin roots and affixes, multisyllabic words) when reading, writing, and spelling grade-level text.
LA 10.1.4	**Fluency:** Students will develop accuracy, phrasing, and expression while reading a variety of grade-level print/digital text to support comprehension.
LA 10.1.4.a	Adjust reading strategies to persevere through text of increasing length and/or complexity.
LA 10.1.5	**Vocabulary:** Students will build and use conversational, academic, and content-specific grade-level vocabulary.
LA 10.1.5.a	Apply word analysis strategies to determine the meaning of unknown and multiple-meaning words across content areas to aid in comprehension and improve writing.
LA 10.1.5.b	*Skills blended with 10.1.5.a at this level.*
LA 10.1.5.c	Acquire new academic and content-specific grade-level vocabulary, relate to prior knowledge, and apply in new situations.
LA 10.1.5.d	Use semantic relationships (e.g., figurative language, connotations, technical and multiple-meaning words) to analyze the impact of specific word choices on meaning and tone, aid in comprehension, and improve writing.
LA 10.1.5.e	Verify meaning and pronunciation of words or phrases using print and/or digital reference materials when appropriate.
LA 10.1.6	**Comprehension:** Students will construct meaning by applying prior knowledge, using text information, and monitoring comprehension while reading increasingly complex grade-level literary and informational text.
LA 10.1.6.a	Evaluate the meaning, reliability, and validity of text considering author's purpose, perspective, and contextual influences.

LA 10.1.6.b	Analyze and evaluate the relationships between elements of literary text (e.g., characterization, setting, plot development, internal and external conflict, inferred and recurring themes, point of view, tone, mood).
LA 10.1.6.c	Analyze the function and critique the effects of the author's use of literary devices (e.g., simile, metaphor, personification, idiom, oxymoron, hyperbole, alliteration, onomatopoeia, analogy, dialect, tone, mood).
LA 10.1.6.d	Summarize, analyze, and synthesize the themes and main ideas between a literary and informational work (print, digital, and/or other media).
LA 10.1.6.e	*Skills blended with 10.1.6.d at this level.*
LA 10.1.6.f	Interpret and evaluate information from print and digital text features to support comprehension.
LA 10.1.6.g	Cite specific textual evidence to analyze and evaluate the effects of historical, cultural, biographical, and political influences of literary and informational text written by culturally diverse authors, to develop a regional, national, and international multicultural perspective.
LA 10.1.6.h	*Skills blended with 10.1.6.g at this level.*
LA 10.1.6.i	Construct and/or answer literal, inferential, critical, and interpretive questions, analyzing and synthesizing evidence from the text and additional sources to support answers.
LA 10.1.6.j	Apply knowledge of organizational patterns to comprehend informational text (e.g., sequence, description, cause and effect, compare/contrast, fact/opinion, proposition/support, concept definition, question/answer).
LA 10.1.6.k	Select text for a particular purpose (e.g., answer a question, solve problems, enjoy, form an opinion, understand a specific viewpoint, predict outcomes, discover models for own writing, accomplish a task), citing evidence to support analysis, reflection, or research.
LA 10.1.6.l	Build background knowledge and activate prior knowledge to clarify text, deepen understanding, and make connections while reading complex text.
LA 10.1.6.m	Self-monitor comprehension and independently apply appropriate strategies to understand complex text.
LA 10.1.6.n	Formulate and justify inferences with text evidence while previewing, reading, and analyzing literary and informational text in various formats.
LA 10.1.6.o	Demonstrate an understanding of complex text by using textual evidence to support analysis, reflection, and research via multiple mediums (e.g., writing, artistic representation, video, other media).
LA 10.1.6.p	Analyze multiple interpretations of a story, drama, or poem (e.g., recorded or live production of a play or recorded novel or poetry), evaluating how each version interprets the source text.

LA 10.2 Writing: Students will learn and apply writing skills and strategies to communicate.

LA 10.2.1	**Writing Process:** Students will apply the writing process to plan, draft, revise, edit, and publish writing using correct spelling, grammar, punctuation, and other conventions of standard English appropriate for grade-level.
LA 10.2.1.a	Use multiple writing strategies recursively to investigate and generate ideas, organize information, guide writing, answer questions, and synthesize information.

LA 10.2.1.b	Generate a draft that conveys complex ideas and critical thinking through analysis, reflection, and use of effective organizational patterns that are appropriate to the purpose and intended audience.
LA 10.2.1.c	Gather and use relevant information and evidence from multiple authoritative print and/or digital sources including primary and secondary sources to support claims or theses.
LA 10.2.1.d	Apply standard rules of grammar and paragraph formation, including parallel structure and subordination.
LA 10.2.1.e	Revise to improve and clarify writing through self-monitoring strategies and feedback from others.
LA 10.2.1.f	Provide oral, written, and/or digital descriptive feedback to other writers.
LA 10.2.1.g	Adjust writing processes to persevere in short and long-term writing tasks of increasing length and complexity.
LA 10.2.1.h	Proofread and edit writing recursively for format and conventions of standard English (e.g., spelling, capitalization, grammar, punctuation, syntax, semantics).
LA 10.2.1.i	Display academic honesty and integrity by avoiding plagiarism and/or overreliance on any one source and by following a standard format for citation.
LA 10.2.1.j	Publish a legible document using a variety of media, and apply various formatting techniques to enhance the readability and impact of the document (e.g., fonts, spacing, design, images, style conventions, citations, and manuscript requirements).
LA 10.2.2	**Writing Modes:** Students will write in multiple modes for a variety of purposes and audiences across disciplines.
LA 10.2.2.a	Communicate information and ideas effectively in analytic, argumentative, descriptive, informative, narrative, poetic, persuasive, and reflective modes to multiple audiences using a variety of media and formats.
LA 10.2.2.b	Provide evidence from literary or informational text to support analysis, reflection, and research.
LA 10.2.2.c	Conduct and publish both short and sustained research projects to answer questions or solve problems using multiple primary and/or secondary sources to support theses.
LA 10.2.2.d	Use precise word choice and domain-specific vocabulary to write in a variety of modes.
LA 10.2.2.3	Analyze various mentor texts and/or exemplars in order to create a similar piece.

LA 10.3 Speaking and Listening: Students will develop and apply speaking and listening skills and strategies to communicate for a variety of purposes.

LA 10.3.1	**Speaking:** Students will develop, apply, and refine speaking skills and strategies to communicate key ideas in a variety of situations.
LA 10.3.1.a	Communicate ideas and information in a clear and concise manner suited to the purpose, setting, and audience (formal voice or informal voice), using appropriate word choice, grammar, and sentence structure.
LA 10.3.1.b	Demonstrate and adjust speaking techniques (e.g., appropriate eye contact, pacing, nonverbal cues, word choice, intonation) for a variety of purposes and situations, including interpreting text.

LA 10.3.1.c	Select and utilize appropriate visual and/or digital tools to enhance understanding for specific audiences.
LA 10.3.1.d	Convey a perspective with clear reasoning and valid evidence.
LA 10.3.1.e	Ask pertinent questions to acquire or confirm information.
LA 10.3.1.f	Anticipate and address alternative or opposing perspectives when appropriate to the mode of speaking.

LA 10.3.2	**Listening:** Students will develop and demonstrate active listening skills across a variety of situations.

LA 10.3.2.a	Select and utilize active and attentive listening skills (e.g., eye contact, nonverbal cues, questioning, summarizing) for multiple situations and modalities (e.g., small/large group, presentation, one-to-one, digital).
LA 10.3.2.b	Analyze the purpose of information presented in diverse media and formats, evaluate its motives (e.g., social, commercial, political), and determine its credibility.
LA 10.3.2.c	Complete a task following complex multi-step directions.

LA 10.3.3	**Reciprocal Communication**: Students will develop, apply, and adapt reciprocal communication skills.

LA 10.3.3.a	Integrate professional etiquette and social protocols when communicating.
LA 10.3.3.b	Demonstrate awareness of and sensitivity to the appropriate use of words (e.g., stereotypes, connotations, subtleties of language) in conversation.
LA 10.3.3.c	Apply conversation strategies to recognize, consider, and evaluate new information presented by others in relationship to one's own ideas.
LA 10.3.3.d	Listen, ask probing questions, and consider information to generate new ideas and challenge assumptions to a topic, text, or issue under study.
LA 10.3.3.e	Collaboratively converse with peers and adults on grade-appropriate topics and texts, building on others' ideas to clearly and persuasively express one's own views while respecting diverse perspectives.

LA 10.4 Multiple Literacies: Students will apply information fluency and practice digital citizenship.

LA 10.4.1	**Information Fluency:** Students will evaluate, create, and communicate information in a variety of media and formats (textual, visual, and digital).

LA 10.4.1.a	Locate, organize, analyze, evaluate, and synthesize information from print and digital resources to create new understandings and defend conclusions.
LA 10.4.1.b	Demonstrate ethical use of information and copyright guidelines by appropriately quoting or paraphrasing from a text and citing the source using available resources (e.g., online citation tools, publication guidelines).
LA 10.4.1.c	Use or decipher multiple formats of print and digital text (e.g., cursive, manuscript, font, graphics, symbols).

LA 10.4.2	**Digital Citizenship:** Students will practice the norms of appropriate and responsible technology use.
LA 10.4.2.a	Practice safe and ethical behaviors when communicating and interacting with others digitally (e.g., safe information to share, appropriate language use, utilize appropriate sites and materials, respect diverse perspectives).
LA 10.4.2.b	Use appropriate digital tools (e.g., social media, online collaborative tools, apps) to communicate with others for conveying information, gathering opinions, and solving problems.

SIX TRAIT CURRICULUM

The Johnson County Central Public School District endorses and implements the Six Traits model of writing instruction and assessment. It is an ongoing expectation that all faculty members will implement this mode of language instruction in their classroom.

IDEAS – The writer's primary message, point of story, showing details and clarity.
ORGANIZATION – Putting information into an order that shows direction and purpose.
VOICE – Includes the expression of a writer's personality; an awareness of the intended audience; and a skillful blend of detail, enthusiasm, and knowledge of the topic.
WORD CHOICE – Selecting, identifying, and revising specific descriptive language.
SENTENCE FLUENCY – Smooth writing patterns and rhythmic flow of language.
CONVENTIONS – Using appropriate editing and presentation skills.

Criteria For Evaluation And Assessments:

1. Give a practice test on State Writing once each quarter.
2. Use district assessment form to implement six traits writing in the classroom.
3. Put visual aide materials up in the classroom to promote the six traits.
4. Administer appropriate rubrics and assessments.

MULTICULTURAL EDUCATION

The instructional program at Johnson County Central Public Schools incorporates multicultural education in all curriculum areas at all grades. Multicultural education includes, but is not limited to, studies relative to the culture, history, and contributions of African Americans, Hispanic Americans, Native Americans, Asian Americans and European Americans with special emphasis on human relations and sensitivity toward all races.

Criteria For Evaluation And Assessments:

1. A district assessment form is used to document multicultural education in the classroom.
2. An annual status report is provided to the local board of education.

Unit 1 – The Plot Thickens – Narrative Structure

Literature:

A Sound of Thunder – Short Story
The Most Dangerous Game – Short Story
The Gift of the Magi – Short Story
The Raven – Narrative Poem
Incident in a Rose Garden – Narrative Poem

Informational Text:

From Here to There: The Physics of Time Travel – Magazine Article
The Time Machine – Movie Poster
from Seabiscuit: An American Legend – Biography
from Four Good Legs Between Us – Magazine Article
Seabiscuit – Timeline
Races on the Radio: Santa Anita Handicap – Radio Transcript

Writing:

Descriptive Writing
Diary Entry
Personal Narrative

Speaking and Listening:

Informal Speech

Language:

Informal
Greek Roots
Descriptive Details
Connotation and Denotation
Precise Verbs
Punctuating Dialogue
Compound Sentences

Unit 2 – People Watching – Characterization and Point of View

Literature:

The Necklace – Short Story
Hamadi – Short Story
My Father's Song - Poem

Informational Text:

from I Know Why the Caged Bird Sings – Autobiography
from Rosa Parks – Biography

Writing:

Literary Criticism

Speaking and Listening:

Participating in a Discussion

Language:

Sentence Variety
Latin Roots
Descriptive Details
Multiple-Meaning Words
Paradox
Etymologies
Adjectival and Adverbial Phrases

Unit 3 – A Sense of Place – Setting, Mood, and Imagery

Literature:

Through the Tunnel – Short Story
The Cask of Amontillado – Short Story
The Peace of Wild Things - Poem

Informational Text:

The Story Behind "The Cask of Amontillado" – Book Excerpt
from A Walk in the Woods – Travel Narrative
Wilderness Letter - Letter

Writing:
Narrative Writing
Speaking and Listening:
Media – Film Clip *from* The Cask of Amontillado
Literary Analysis
Language:
Verb Tense
Connotation and Denotation
Compound Predicates
Word Choice
Context Clues
Participles
Quotation Marks

Unit 4 – Getting the Message – Theme and Symbol
Literature:
The Sniper – Short Story
Marigolds – Short Story
The Scarlet Ibis – Short Story
Two Kinds – Short Story
Poem on Returning to Dwell in the Country – Poem
My Heart Leaps Up – Poem
The Sun – Poem
Rice and Rose Bowl Blues - Poem
Informational Text:
Sowing Change – Magazine Article
In Our Hands – Book Cover
Math and After Math – Essay
The Future in My Arms – Essay
Writing:
Character Analysis
Analysis of Literary Nonfiction
Speaking and Listening:
Panel Discussion
Language:
Sentence Structures
Connotation and Denotation
Word Origins
Relative Clauses
Commas with Phrases and Clauses

Unit 5 – Ideas Made Visible – Author's Purpose
Literature:
The Open Window – Short Story
from The House on Mango Street – Novel Excerpt
Of Mice and Men - Novel
Informational Text:
Georgia O'Keeffe – Biographical Essay
The Lost Boys – Magazine Article
Writing:
Compare and Contrast
Business Letter

Speaking and Listening:

Interpretation of Graphic Sources
Media – TV Newscast Clip – Nine Coal Miners Brought Up Safely
Media – Web News Report – All Nine Pulled Alive from Mine

Language:

Latin Roots
Capitalization
Complex Sentences

Unit 6 – Taking Sides – Argument and Persuasion

Literature:

The Pedestrian – Short Story

Informational Text:

I Have a Dream – Speech
Testimony Before the Senate – Speech
How Private is Your Private Life – Magazine Article
The Privacy Debate: Once Size Doesn't Fit All – Newspaper Editorial

Writing:

Editorial
Persuasive Essay

Speaking and Listening:

The Craft of Persuasion
Debate

Language:

Analogies
Persuasive Techniques
Imperative Sentences
Parallelism
Gerunds
Using a Dictionary

Unit 7 – Special Effects – The Language of Poetry

Literature:

Not in a Silver Casket – Poem
My Papa's Waltz – Poem
I Ask My Mother to Sing – Poem
Grape Sherbet – Poem
Today – Poem
400-Meter Free Style – Poem
Bodybuilder's Contest – Poem
Ode to My Socks – Poem
Egg Horror Poem – Poem
The Seven Ages of Man – Poem
The Road Not Taken – Poem

Informational Text:

U.S. Poet Laureates: Getting the Word Out – Magazine Article
The Night Poetry Rocked the House – Magazine Article

Writing:

Analysis of a Poem
Poem

Speaking and Listening:

Presentation of a Literary Analysis

Poetry Slam

Language:

Poetic Elements
Singular and Plural Possessives
Dashes

Unit 8 – A Way with Words – Author's Style and Voice

Literature:

Where Have You Gone, Charming Billy? – Short Story
The Princess and the Tin Box – Fable
A Narrow Fellow in the Grass – Poem
"Hope" Is the Thing with Feathers – Poem

Informational Text:

Tim O'Brien: The Naked Soldier – Interview
Be a Marine – Recruitment Poster
Unraveling the Mystery of Emily Dickinson – Journal Article

Writing:

Letter
Analysis of Author's Style

Speaking and Listening:

Podcast

Language:

Style and Voice
Passive Voice
Repetition
Prefixes
Sentence Types and Sentence Variety
Run-On Sentences
Compound-Complex Sentences

Unit 9 – Putting It in Context – History, Culture, and the Author

Literature:

The Vietnam Wall – Poem
Blues Ain't No Mockingbird – Short Story
American History – Short Story
Theme for English B – Poem
Haiku – Poem

Informational Text:

from Angela's Ashes – Memoir
Special Report – Magazine Article
The Harlem Renaissance: A Cultural Explosion – Magazine Article

Writing:

Argument
Feature Article

Speaking and Listening:

Feature Article

Language:

Gerund Phrases
Latin Roots
Idioms
Incorporating Quotations
Participial Phrases

Unit 10 – Shakespearean Drama – The Tragedy of Romeo and Juliet

Literature:

The Tragedy of Romeo and Juliet – Shakespearean Tragedy
Pyramus and Thisbe *from* Metamorphoses – Myth

Informational Text:

Shakespeare's World
Great Movies: Romeo and Juliet

Writing:

Blank Verse
Compare-and-Contrast Views
Critical Review

Speaking and Listening:

Media – Film Clips *from* The Tragedy of Romeo and Juliet
Evaluation of a Critical Review

Language:

The Language of Shakespeare
Characteristics of Shakespearean Tragedy
Rhythm
Parallelism
Adverbial Clauses
Semicolons

Unit 11 – Epic Poetry – The Odyssey

Literature:

from The Odyssey – Epic Poem
Penelope - Poem

Informational Text:

Homer's World

Writing:

Video Script

Speaking and Listening:

Video Script
Evaluation of a Video

Language:

Prefixes
Latin Roots
Descriptive Details

Unit 12 – Investigation and Discovery – The Power of Research

Informational Text:

Research Strategies Workshop
Writing Workshop: Informative Text: Research Paper

Writing:

Plan and Focus Research
Write a Research Paper
Create a Web Site

Speaking and Listening:

Plan and Focus Research
Create a Web Site

Language:

Punctuating Titles/Integrating Quotations/Citing Sources

TITLE: **ENGLISH II**
GRADE: **10TH**

RESOURCE MATERIALS: *Literature* Grade 10 (Holt - McDougal), Novels, Videos, Thesaurus

CRITERIA FOR EVALUATION AND ASSESSMENT: Daily Writing Assignments, Tests, Quizzes, Reports

STATE STANDARDS

Grades 9-10

LA 10.1 Reading: Students will learn and apply reading skills and strategies to comprehend text.

LA 10.1.1	**Concepts of Print:** Students will demonstrate knowledge of the concepts of print.
	Mastered in Grade 1 and blended with other skills at this grade level.
LA 10.1.2	**Phonological Awareness:** Students will demonstrate phonological awareness through oral activities.
	Mastered in Grade 1 and blended with other skills at this grade level.
LA 10.1.3	**Word Analysis:** Students will use phonetic analysis to read and write grade-level text.
LA 10.1.3.a	Know and apply phonetic and structural analysis (e.g., Greek and Latin roots and affixes, multisyllabic words) when reading, writing, and spelling grade-level text.
LA 10.1.4	**Fluency:** Students will develop accuracy, phrasing, and expression while reading a variety of grade-level print/digital text to support comprehension.
LA 10.1.4.a	Adjust reading strategies to persevere through text of increasing length and/or complexity.
LA 10.1.5	**Vocabulary:** Students will build and use conversational, academic, and content-specific grade-level vocabulary.
LA 10.1.5.a	Apply word analysis strategies to determine the meaning of unknown and multiple-meaning words across content areas to aid in comprehension and improve writing.
LA 10.1.5.b	*Skills blended with 10.1.5.a at this level.*
LA 10.1.5.c	Acquire new academic and content-specific grade-level vocabulary, relate to prior knowledge, and apply in new situations.
LA 10.1.5.d	Use semantic relationships (e.g., figurative language, connotations, technical and multiple-meaning words) to analyze the impact of specific word choices on meaning and tone, aid in comprehension, and improve writing.
LA 10.1.5.e	Verify meaning and pronunciation of words or phrases using print and/or digital reference materials when appropriate.
LA 10.1.6	**Comprehension:** Students will construct meaning by applying prior knowledge, using text information, and monitoring comprehension while reading increasingly complex grade-level literary and informational text.
LA 10.1.6.a	Evaluate the meaning, reliability, and validity of text considering author's purpose, perspective, and contextual influences.

LA 10.1.6.b	Analyze and evaluate the relationships between elements of literary text (e.g., characterization, setting, plot development, internal and external conflict, inferred and recurring themes, point of view, tone, mood).
LA 10.1.6.c	Analyze the function and critique the effects of the author's use of literary devices (e.g., simile, metaphor, personification, idiom, oxymoron, hyperbole, alliteration, onomatopoeia, analogy, dialect, tone, mood).
LA 10.1.6.d	Summarize, analyze, and synthesize the themes and main ideas between a literary and informational work (print, digital, and/or other media).
LA 10.1.6.e	*Skills blended with 10.1.6.d at this level.*
LA 10.1.6.f	Interpret and evaluate information from print and digital text features to support comprehension.
LA 10.1.6.g	Cite specific textual evidence to analyze and evaluate the effects of historical, cultural, biographical, and political influences of literary and informational text written by culturally diverse authors, to develop a regional, national, and international multicultural perspective.
LA 10.1.6.h	*Skills blended with 10.1.6.g at this level.*
LA 10.1.6.i	Construct and/or answer literal, inferential, critical, and interpretive questions, analyzing and synthesizing evidence from the text and additional sources to support answers.
LA 10.1.6.j	Apply knowledge of organizational patterns to comprehend informational text (e.g., sequence, description, cause and effect, compare/contrast, fact/opinion, proposition/support, concept definition, question/answer).
LA 10.1.6.k	Select text for a particular purpose (e.g., answer a question, solve problems, enjoy, form an opinion, understand a specific viewpoint, predict outcomes, discover models for own writing, accomplish a task), citing evidence to support analysis, reflection, or research.
LA 10.1.6.l	Build background knowledge and activate prior knowledge to clarify text, deepen understanding, and make connections while reading complex text.
LA 10.1.6.m	Self-monitor comprehension and independently apply appropriate strategies to understand complex text.
LA 10.1.6.n	Formulate and justify inferences with text evidence while previewing, reading, and analyzing literary and informational text in various formats.
LA 10.1.6.o	Demonstrate an understanding of complex text by using textual evidence to support analysis, reflection, and research via multiple mediums (e.g., writing, artistic representation, video, other media).
LA 10.1.6.p	Analyze multiple interpretations of a story, drama, or poem (e.g., recorded or live production of a play or recorded novel or poetry), evaluating how each version interprets the source text.

LA 10.2 Writing: Students will learn and apply writing skills and strategies to communicate.

LA 10.2.1	**Writing Process:** Students will apply the writing process to plan, draft, revise, edit, and publish writing using correct spelling, grammar, punctuation, and other conventions of standard English appropriate for grade-level.
LA 10.2.1.a	Use multiple writing strategies recursively to investigate and generate ideas, organize information, guide writing, answer questions, and synthesize information.

LA 10.2.1.b	Generate a draft that conveys complex ideas and critical thinking through analysis, reflection, and use of effective organizational patterns that are appropriate to the purpose and intended audience.
LA 10.2.1.c	Gather and use relevant information and evidence from multiple authoritative print and/or digital sources including primary and secondary sources to support claims or theses.
LA 10.2.1.d	Apply standard rules of grammar and paragraph formation, including parallel structure and subordination.
LA 10.2.1.e	Revise to improve and clarify writing through self-monitoring strategies and feedback from others.
LA 10.2.1.f	Provide oral, written, and/or digital descriptive feedback to other writers.
LA 10.2.1.g	Adjust writing processes to persevere in short and long-term writing tasks of increasing length and complexity.
LA 10.2.1.h	Proofread and edit writing recursively for format and conventions of standard English (e.g., spelling, capitalization, grammar, punctuation, syntax, semantics).
LA 10.2.1.i	Display academic honesty and integrity by avoiding plagiarism and/or overreliance on any one source and by following a standard format for citation.
LA 10.2.1.j	Publish a legible document using a variety of media, and apply various formatting techniques to enhance the readability and impact of the document (e.g., fonts, spacing, design, images, style conventions, citations, and manuscript requirements).
LA 10.2.2	**Writing Modes:** Students will write in multiple modes for a variety of purposes and audiences across disciplines.
LA 10.2.2.a	Communicate information and ideas effectively in analytic, argumentative, descriptive, informative, narrative, poetic, persuasive, and reflective modes to multiple audiences using a variety of media and formats.
LA 10.2.2.b	Provide evidence from literary or informational text to support analysis, reflection, and research.
LA 10.2.2.c	Conduct and publish both short and sustained research projects to answer questions or solve problems using multiple primary and/or secondary sources to support theses.
LA 10.2.2.d	Use precise word choice and domain-specific vocabulary to write in a variety of modes.
LA 10.2.2.3	Analyze various mentor texts and/or exemplars in order to create a similar piece.

LA 10.3 Speaking and Listening: Students will develop and apply speaking and listening skills and strategies to communicate for a variety of purposes.

LA 10.3.1	**Speaking:** Students will develop, apply, and refine speaking skills and strategies to communicate key ideas in a variety of situations.
LA 10.3.1.a	Communicate ideas and information in a clear and concise manner suited to the purpose, setting, and audience (formal voice or informal voice), using appropriate word choice, grammar, and sentence structure.
LA 10.3.1.b	Demonstrate and adjust speaking techniques (e.g., appropriate eye contact, pacing, nonverbal cues, word choice, intonation) for a variety of purposes and situations, including interpreting text.

LA 10.3.1.c	Select and utilize appropriate visual and/or digital tools to enhance understanding for specific audiences.
LA 10.3.1.d	Convey a perspective with clear reasoning and valid evidence.
LA 10.3.1.e	Ask pertinent questions to acquire or confirm information.
LA 10.3.1.f	Anticipate and address alternative or opposing perspectives when appropriate to the mode of speaking.

LA 10.3.2	**Listening:** Students will develop and demonstrate active listening skills across a variety of situations.

LA 10.3.2.a	Select and utilize active and attentive listening skills (e.g., eye contact, nonverbal cues, questioning, summarizing) for multiple situations and modalities (e.g., small/large group, presentation, one-to-one, digital).
LA 10.3.2.b	Analyze the purpose of information presented in diverse media and formats, evaluate its motives (e.g., social, commercial, political), and determine its credibility.
LA 10.3.2.c	Complete a task following complex multi-step directions.

LA 10.3.3	**Reciprocal Communication**: Students will develop, apply, and adapt reciprocal communication skills.

LA 10.3.3.a	Integrate professional etiquette and social protocols when communicating.
LA 10.3.3.b	Demonstrate awareness of and sensitivity to the appropriate use of words (e.g., stereotypes, connotations, subtleties of language) in conversation.
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LA 10.3.3.d	Listen, ask probing questions, and consider information to generate new ideas and challenge assumptions to a topic, text, or issue under study.
LA 10.3.3.e	Collaboratively converse with peers and adults on grade-appropriate topics and texts, building on others' ideas to clearly and persuasively express one's own views while respecting diverse perspectives.

LA 10.4 Multiple Literacies: Students will apply information fluency and practice digital citizenship.

LA 10.4.1	**Information Fluency:** Students will evaluate, create, and communicate information in a variety of media and formats (textual, visual, and digital).

LA 10.4.1.a	Locate, organize, analyze, evaluate, and synthesize information from print and digital resources to create new understandings and defend conclusions.
LA 10.4.1.b	Demonstrate ethical use of information and copyright guidelines by appropriately quoting or paraphrasing from a text and citing the source using available resources (e.g., online citation tools, publication guidelines).
LA 10.4.1.c	Use or decipher multiple formats of print and digital text (e.g., cursive, manuscript, font, graphics, symbols).

LA 10.4.2	**Digital Citizenship:** Students will practice the norms of appropriate and responsible technology use.
LA 10.4.2.a	Practice safe and ethical behaviors when communicating and interacting with others digitally (e.g., safe information to share, appropriate language use, utilize appropriate sites and materials, respect diverse perspectives).
LA 10.4.2.b	Use appropriate digital tools (e.g., social media, online collaborative tools, apps) to communicate with others for conveying information, gathering opinions, and solving problems.

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VOICE - Includes the expression of a writer's personality; an awareness of the intended audience; and a skillful blend of detail, enthusiasm, and knowledge of the topic.
WORD CHOICE - Selecting, identifying, and reviewing specific descriptive language.
SENTENCE FLUENCY - Smooth writing patterns and rhythmic flow of language.
CONVENTIONS - Using appropriate editing and presentation skills.

Criteria For Evaluation And Assessments:

1. Students will do a report using library resources.
2. Use district assessment form to implement six trait writing in the classroom.
3. Put visual aide materials up in the classroom to promote the six traits.
4. Administer appropriate rubrics and assessments.

MULTICULTURAL EDUCATION

The instructional program at Johnson County Central Public Schools incorporates multicultural education in all curriculum areas at all grades. Multicultural education includes, but is not limited to, studies relative to culture, history, and contributions of African Americans, Hispanic Americans, Native Americans, Asian Americans and European Americans with special emphasis on human relations and sensitivity toward all races.

Criteria For Evaluation And Assessments:

1. A district assessment form is used to document multicultural education in the classroom.
2. An annual status report is provided to the local board of education.

Unit 1 – The World of a Story – Plot, Setting, and Mood
Literature:

Harrison Bergeron – Short Story
Everyday Use – Short Story
Searching for Summer – Short Story
To Build a Fire – Short Story

Informational Text:

from Deep Survival – Nonfiction Trade Book
from The Johnston Flood – Historical Narrative
The Race to Save Apollo 13

Writing:

Literary Analysis

Speaking and Listening:

Response to a Short Story
Media – Film Clip *from* Apollo 13

Language:

Greek Roots
Prefixes
Descriptive Details
Connotation and Denotation
Reciprocal Pronouns
Quotations

Unit 2 – Word Portraits – Character Development

Literature:

Shoofly Pie – Short Story
The Possibility of Evil – Short Story
A Marriage Proposal – Drama
The Gift – Poem
Those Winter Sundays - Poem

Informational Text:

A Mexican Feast for Bodies and Souls – Newspaper Article
The Teacher Who Changed My Life – Essay
A Celebration of Grandfathers – Essay
Simply Grand: Generational Ties Matter – Magazine Article

Writing:

Comparison-Contrast Essay
Short Story

Speaking and Listening:

Speech
Video Narrative

Language:

Modifiers
Sentence Types
Verb Tense
Participles

Unit 3 – A Writer's Choice – Narrative Devices

Literature:

By the Waters of Babylon – Short Story
There Will Come Soft Rains – Short Story
The Doll's House – Short Story

Informational Text:

Inside the House of the Future – Newspaper Article
The Car of the Future – Advertisement
The Man in the Water – Essay
Dyaspora – Essay

Writing:

Analysis of Literary Nonfiction

Speaking and Listening:

Literary Analysis

Language:

Phrases
Clauses
Commas

Unit 4 – Message and Meaning - Theme

Literature:

Cranes – Short Story
Do not weep, maiden, for war is kind – Poem
The Sonnet-Ballad – Poem
To Kill a Mockingbird - Novel

Informational Text:

from Tolerance – Essay
Letter to a Young Refugee from Another – Essay
The Scottsboro Boys Trials – Web Site Articles

Writing:

Comparison-Contrast Essay

Speaking and Listening:

Group Discussion

Language:

Comma Placement
Parallelism
Sentence Structure
Analogies

Unit 5 – Why Write? – Author's Purpose

Literature:

And of Clay Are We Created – Short Story
Peruvian Child – Poem

Informational Text:

The Plot Against People – Humorous Essay
Why Leaves Turn Color in the Fall – Essay

Writing:

Persuasive Letter

Speaking and Listening:

Interview
TV Broadcast

Language:

Phrases
Clauses
Active and Passive Voice
Dashes and Parenthetical Information

Unit 6 – Making a Case – Argument and Persuasion

Literature:

The Blue Stones – Short Story
How Much Land Does a Man Need? – Short Story

Informational Text:

Doing Nothing is Something – Persuasive Essay

I Acknowledge Mine - Essay
Use of Animals in Biomedical Research – Opinion Paper
from The New Testament – Scriptural Writing

Writing:
Editorial
Persuasive Essay

Speaking and Listening:
Persuasion in Political Ads
Persuasive Speech

Language:
Rhetorical Questions
Analogies
Subjunctive Mood
Parallelism

Unit 7 – Sound and Sense – The Language of Poetry

Literature:
Ex-Basketball Player – Poem
Slam, Dunk, & Hook – Poem
There Will Come Soft Rains – Poem
I Dwell in Possibility – Poem
Variation on a Theme by Rilke – Poem
Blessing the Boats – Poem
The Fish – Poem
Piano – Poem
Fifteen – Poem
Sonnet 18 – Poem
Sonnet XXX of *Fatal Interview* – Poem
Lord Randall – Poem
Ballad / Balada – Poem
Midwinter Blues - Poem

Informational Text:
from Blues Poems - Essay

Writing:
Analysis of a Poem
Poem
Class Blog

Speaking and Listening:
Class Blog
Poetry Slam

Language:
Precise Language
Figurative Language
Sound Devices
Quotations
Complex Sentences

Unit 8 – Signatures – Author's Style and Voice

Literature:
The Pit and the Pendulum – Short Story
Birches – Poem
Mending Wall – Poem

The Red Wheelbarrow - Poem

Informational Text:

Only Daughter – Personal Essay

Writing:

Online Feature Article

Speaking and Listening:

Online Feature Article

Language:

Personification
Verbals
Quotations
Style
Voice

Unit 9 – Product of the Times – History, Culture, and the Author

Literature:

Marriage is a Private Affair – Short Story

Informational Text:

from Night – Memoir
from Farewell to Manzanar – Memoir
Montgomery Boycott – Memoir
A Eulogy for Dr. Martin Luther King, Jr. – Speech

Writing:

Editorial
Cause-and-Effect Essay

Speaking and Listening:

Oral Instructions

Language:

Gerunds and Gerund Phrases
Transitions

Unit 10 – Upholding Honor – Greek Tragedy and Medieval Romance

Literature:

Antigone – Drama
from Le Morte d'Arthur – Romance
The Crowning of Arthur
Sir Launcelot du Lake

Informational Text:

from A Distant Mirror: The Calamitous 14th Century – Historical Account

Writing:

Video Script

Speaking and Listening:

Video Production

Language:

Similes
Metaphors
Set Directions
Formatting a Script

Unit 11 – Shakespearean Drama – The Tragedy of Julius Caesar

Literature:

The Tragedy of Julius Caesar – Shakespearean Tragedy

Informational Text:

Shakespeare's World

Julius Caesar at the Public Theater – Theater Reviews

Writing:

Critical Review

Speaking and Listening:

Media – Film Clips *from* The Tragedy of Julius Caesar

Presentation Evaluation

Language:

The Language of Shakespeare

Adjective Clauses

Semicolons

Capitalization

Quotations

Unit 12 – Investigation and Discovery – The Power of Research

Informational Text:

Research Strategies Workshop

Writing Workshop: Informative Text: Research Paper

Writing:

Plan and Focus Research

Write a Research Paper

Create a Web Site

Speaking and Listening:

Create a Web Site

Language:

Capitalization

Quotations

Citations

TITLE: **ADVANCE ENGLISH III**
GRADE: **11TH**

RESOURCE MATERIALS: Text-*Literature & Language, American Literature* (McDougal Littell), Novels, Films, Handouts, Support Literature. Vocabulary Power Plus for the New SAT: Vocabulary, Reading and Writing Exercises for High Scores, Book Three by Prestwick House.

CRITERIA FOR EVALUATION AND ASSESSMENT: Tests, Quizzes, Class Work, Discussion, Group Activities, Research Reports, Independent Projects

STATE STANDARDS:

Grades 11-12

LA 12.1 Reading: Students will learn and apply reading skills and strategies to comprehend text.

LA 12.1.1	**Concepts of Print:** Students will demonstrate knowledge of the concepts of print.
	Mastered in Grade 1 and blended with other skills at this grade level.
LA 12.1.2	**Phonological Awareness:** Students will demonstrate phonological awareness through oral activities.
	Mastered in Grade 1 and blended with other skills at this grade level.
LA 12.1.3	**Word Analysis:** Students will use phonetic analysis to read and write grade-level text.
LA 12.1.3.a	Know and apply phonetic and structural analysis (e.g., Greek and Latin roots and affixes, multisyllabic words) when reading, writing, and spelling grade-level text.
LA 12.1.4	**Fluency:** Students will develop accuracy, phrasing, and expression while reading a variety of grade-level print/digital text to support comprehension.
LA 12.1.4.a	Adjust reading strategies to persevere through text of increasing length and/or complexity.
LA 12.1.5	**Vocabulary:** Students will build and use conversational, academic, and content-specific grade-level vocabulary.
LA 12.1.5.a	Apply word analysis strategies to determine the meaning of unknown and multiple-meaning words across content areas to aid in comprehension and improve writing.
LA 12.1.5.b	*Skills blended with 10.1.5.a at this level.*
LA 12.1.5.c	Acquire new academic and content-specific grade-level vocabulary, relate to prior knowledge, and apply in new situations.
LA 12.1.5.d	Use semantic relationships (e.g., figurative language, connotations, technical and multiple-meaning words, and key terms or phrases) to analyze the impact of specific word choices on meaning and tone, aid in comprehension, and improve writing.
LA 12.1.5.e	Verify meaning and pronunciation of words or phrases using print and/or digital reference materials when appropriate.
LA 12.1.6	**Comprehension:** Students will construct meaning by applying prior knowledge, using text information, and monitoring comprehension while reading increasingly complex grade-level literary and informational text.

LA 12.1.6.a	Evaluate the meaning, reliability, and validity of text considering author's purpose, perspective, rhetorical style, and contextual influences.
LA 12.1.6.b	Analyze and evaluate the relationships between elements of literary text (e.g., characterization, setting, plot development, internal and external conflict, inferred and recurring themes, point of view, tone, mood).
LA 12.1.6.c	Analyze the function and critique the effects of the author's use of literary devices (e.g., allusion, symbolism, metaphor, personification, epiphany, oxymoron, dialect, tone, mood).
LA 12.1.6.d	Summarize, analyze, and synthesize the themes and main ideas between multiple literary and informational works (print, digital, and/or other media).
LA 12.1.6.e	*Skills blended with 12.1.6.d at this level.*
LA 12.1.6.f	Interpret and evaluate information from print and digital text features to support comprehension.
LA 12.1.6.g	Cite specific textual evidence to analyze and evaluate the effects of historical, cultural, biographical, and political influences of literary and informational text written by culturally diverse authors, to develop a regional, national, and international multicultural perspective.
LA 12.1.6.h	*Skills blended with 12.1.6.g at this level.*
LA 12.1.6.i	Construct and/or answer literal, inferential, critical, and interpretive questions, analyzing and synthesizing evidence from the text and additional sources to support answers.
LA 12.1.6.j	Apply knowledge of organizational patterns to comprehend informational text (e.g., sequence, description, cause and effect, compare/contrast, fact/opinion, proposition/support, concept definition, question/answer).
LA 12.1.6.k	Select text for a particular purpose (e.g., answer a question, solve problems, enjoy, form an opinion, understand a specific viewpoint, predict outcomes, discover models for own writing, accomplish a task), citing evidence to support analysis, reflection, or research.
LA 12.1.6.l	Build background knowledge and activate prior knowledge to clarify text, deepen understanding, and make connections while reading complex text.
LA 12.1.6.m	Self-monitor comprehension and independently apply appropriate strategies to understand complex text.
LA 12.1.6.n	Formulate and justify inferences with text evidence while previewing, reading, and analyzing literary and informational text in various formats.
LA 12.1.6.o	Demonstrate an understanding of complex text by using textual evidence to support analysis, reflection, and research via multiple mediums (e.g., writing, artistic representation, video, other media).
LA 12.1.6.p	Analyze multiple interpretations of a story, drama, or poem (e.g., recorded or live production of a play or recorded novel or poetry), evaluating how each version interprets the source text.

SIX TRAIT CURRICULUM

The Johnson County Central Public School District endorses and implements the Six Traits model of writing instruction and assessment. It is an ongoing expectation that all faculty members will implement this mode of language instruction in their classroom.

IDEAS – The writer's primary message, point of story, showing details and clarity.
ORGANIZATION – Putting information into an order that shows direction and purpose.
VOICE – Includes the expression of a writer's personality; an awareness of the intended audience; and a skillful blend of detail, enthusiasm, and knowledge of the topic.

WORD CHOICE – Selecting, identifying, and revising specific descriptive language.
SENTENCE FLUENCY – Smooth writing patterns and rhythmic flow of language.
CONVENTIONS – Using appropriate editing and presentation skills.

Criteria For Evaluation And Assessments:

1. Give a practice test on State Writing once each quarter.
2. Use district assessment form to implement six traits writing in the classroom.
3. Put visual aide materials up in the classroom to promote the six traits.
4. Administer appropriate rubrics and assessments.

MULTICULTURAL EDUCATION

The instructional program at Johnson County Central Public Schools incorporates multicultural education in all curriculum areas at all grades. Multicultural education includes, but is not limited to, studies relative to the culture, history, and contributions of African Americans, Hispanic Americans, Native Americans, Asian Americans and European Americans with special emphasis on human relations and sensitivity toward all races.

Criteria For Evaluation And Assessments:

1. A district assessment form is used to document multicultural education in the classroom.
2. An annual status report is provided to the local board of education.

Unit 1: Origins and Encounters 2000 B.C. – A.D. 1620

Elements of Fiction: The World on the Turtle's Back; Song of the Sky Loom; Hunting Song/Dinni-e Sin; Coyote Stories; The Man to Send Rain Clouds
Elements of Nonfiction: from The Way to Rainy Mountain; from La Relacion; from The Travels of Marco Polo; from Of Plymouth Plantation; from Women and Children First: The Mayflower Pilgrims; from The Interesting Narrative of the Life of Olaudah Equiano; from Blue Highways; My Sojourn in the Lands of My Ancestors
Elements of Novels: October Sky
Writing Workshop: Eyewitness Report (Observation and Description)
Language Workshop: Achieving Sentence Variety
Vocabulary Workshop: Building a Stronger Vocabulary
Reading Skills: Primary and Secondary Sources

Unit 2: From Colony to Country 1620 – 1800

Elements of Nonfiction: The Examination of Sarah Good; History Clashes with Commercialism; from Sinners in the Hands of an Angry God; Speech in the Virginia Convention; The Declaration of Independence; from The Declaration of the Rights of Woman; Letter to the Rev. Samson Occom; Letter to John Adams; What Is an American?; from Poor Richard's Almanack; Lecture to a Missionary; from Stride Toward Freedom; Necessary to Protect Ourselves
Elements of Poetry: To My Dear and Loving Husband; Upon the Burning of Our House, July 10th, 1666; from I Am Joaquin/Yo Soy Joaquin
Elements of Drama: The Crucible
Writing Workshop: Critical Review (Responding to Literature); Persuasion
Language Workshop: Using Gerunds; Using Verb Tenses in Sequence
Vocabulary Workshop: Interpreting Analogies; Using Context Clues
Reading Skills: Distinguishing Fact from Opinion

Unit 3: The Spirit of Individualism 1800 – 1855

Elements of Fiction: The Devil and Tom Walker; Gary Keillor; The Masque of the Red Death; The Fall of the House of Usher; Dr. Heidegger's Experiment; A Rose for Emily

Elements of Nonfiction: from Self-Reliance; from Civil Disobedience; On Civil Disobedience; from Walden; from Danse Macabre, by Stephen King

Elements of Poetry: A Psalm of Life; from Memoirs; I Hear America Singing; I Sit and Look Out; from Song of Myself; Ode to Walt Whitman; Danse Russe; anyone lived in a pretty how town; Ending Poem; Tia Chucha; The Raven; Spleen LXXXI, by Charles Baudelaire; Monody (Elegy for Nathaniel Hawthorne)

Elements of Novels: Narrative of the Life of Frederick Douglass

Writing Workshop: Reflective Essay (Personal and Reflective); Short Story (Narrative and Literary)

Language Workshop: Using Adjectives and Adjective Phrases; Using Adverbs and Adverb Phrases

Vocabulary Workshop: Analyzing Word Parts – Roots; Using Word Origins to Learn New Words

Unit 4: Conflict and Expansion 1850 – 1900

Elements of Fiction: An Occurrence at Owl Creek Bridge; A Mystery of Heroism; The Indian and the Hundred Cows/El Indito de las Cien Vacas; High Horse's Courting from Black Elk Speaks; The Notorious Jumping Frog of Calaveras County; A Wagner Matinee; The Legend of Gregorio Cortez

Elements of Nonfiction: from Narrative of the Life of Frederick Douglass, an American Slave; Letter to Sarah Ballou; The Gettysburg Address; from Coming of Age in Mississippi; I Will Fight No More Forever; from The Autobiography of Mark Twain; from Life on the Mississippi; Epigrams; The First Jumping Frog; from Letters of a Woman Homesteader

Elements of Poetry: Stanzas on Freedom; Free Labor; Frederick Douglass; Ballad of Birmingham

Writing Workshop: Literary Interpretation (Responding to Literature);

Language Workshop: Creating Compound Sentences; Using Adjective and Adverb Clauses

Vocabulary Workshop: Comprehending Words with Multiple Meanings; Homophones, Homographs, and Homonyms

Reading Skills: Evaluating and Argument

Communication Workshop: Storytelling (Speaking and Listening)

Unit 5: The Changing Face of America 1855 - 1925

Elements of Fiction: The Yellow Wallpaper; The Story of an Hour; Seventeen Syllables; I Stand Here Ironing; Winter Dreams; America and I; In the American Society

Elements of Nonfiction: Letter to Thomas Wentworth Higginson; from Complaints and Disorders; The New Immigrants

Elements of Poetry: This is my letter to the World; "Hope" is the thing with feathers-; Success is counted sweetest; Much Madness is divinest Sense; Letter to Thomas Wentworth Higginson; My life closed twice before its close-; After great pain, a formal feeling comes-; I heard a Fly buzz-when I died-; Because I could not stop for Death-; Adolescence-III; Ironing Their Clothes; Chicago; Lucinda Matlock; Richard Cory; Miniver Cheevy; We Wear the

Mask; Sympathy; My Father and the Figtree; Defining the Grateful Gesture; Refugee Ship
Elements of Novels: When the Legends Die
Writing Workshop: Comparison-and-Contrast Essay (Informative Exposition)
Language Workshop: Using Noun Clauses
Vocabulary Workshop: Recognizing Denotations and Connotations
Reading Skills: Finding Evidence; Comparing Text and Graphic Information

Unit 6: The Modern Age 1900 – 1940

Elements of Fiction: The End of Something; The Jilting of Granny Weatherall; The Man Who Was Almost a Man
Elements of Nonfiction: from Love, Langston by Dahleen Glanton, When the Negro Was in Vogue; How it Feels to Be Colored Me; from Zora Neale Hurston: A Cautionary Tale and a Partisan View; My Dungeon Ghook; Letter to My Nephew; Thoughts on the African-American Novel; In Praise of Robert Frost by John F. Kennedy; from The Diearis
Elements of Poetry: I, Too; Harlem; The Weary Blues; Flute Players by Jean-Joseph Rabearivelo; My City; Any Human to Another; If We Must Die; A Black Man Talks of Reaping; Life for My Child Is Simple; Primer for Blacks; Acquainted with the Night; Mending Wall; "Out, Out-"; The Death of the Hired Man; The Love Song of J. Alfred Prufrock; Mirror; Self in 1958
Writing Workshop: Research Report
Language Workshop: Making Sentence Parts Parallel
Vocabulary Workshop: Understanding Informal Language

Unit 7: War Abroad and Conflict at Home 1940 – Present

Elements of Fiction: Armistice; Ambush; The Writer in the Family; Teenage Wasteland; Separating; Hostage
Elements of Nonfiction: from Survival in Auschwitz; Why Soldiers Won't Talk; Letter from Paradise; Point/Counterpoint: The Japanese-American Internment; from Letter from Birmingham Jail; Mother Tongue; Straw into Gold: The Metamorphosis of the Everyday
Elements of Poetry: The Death of the Ball Turret Gunner; In Response to Executive Order 9066; Camouflaging the Chimera; Deciding; At the Justice Department, November 15, 1969; Revolutionary Dreams; Mexicans Begin Jogging; Legal Alien; The Legend; The Latin Deli: An Ars Poetica
Elements of Drama: Wandering
Language Workshop: Using Sentence Closers
Vocabulary Workshop: Analyzing Word Parts – Affixes
Reading Skills: Analyzing an Issue
Communication Workshop: Multimedia Exhibit (Using Technology)

Students will be expected to demonstrate the following competencies:

1. Demonstrate the critical thinking skills, reading competencies, writing competencies, grammatical competencies, and research competencies called upon in English 10.
2. Evaluate the strengths and weakness of arguments.
3. Recognize persuasive appeals, such as appeals to emotion and the appeals to authority.
4. Address underlying assumptions.
5. Evaluate relationships between claims and support for claims.
6. Demonstrate an ability to read texts of both moderate and extended length.
7. Makes claims about a text and support those claims with textual evidence.

8. Monitor reader responses.
9. Take into account the audience for which a text seems to be written.
10. Identify strengths and weakness in the writing of peers.
11. Recognize how a writer's word choice contributes to his and her arguments.
12. Recognize the operation of logical, emotional, and ethical appeals.
13. Show an awareness of how non-verbal elements, such as pictures and graphs, contribute to the argument of a text and require chose reading.
14. Show an awareness of how to critically read statistics, alert to what they say and don't say.
15. Make judgments about writers' tones of voice and how their tones contribute to their arguments.
16. Show a critical awareness of writers' use of comparisons and analogies.
17. Show the ability to skim, summarize, and speak about newspaper articles.
18. Produce essays that make clear and continuous arguments, with appropriate assertions, transitions, and support.
19. Employ a well-developed vocabulary for analyzing writing.
20. Observe the convention of academic writing.
21. Demonstrate the effective use of summary, paraphrase, and quotations without letting any of these elements submerge a writer's own controlling voice.
22. Avoid all forms of plagiarism.
23. Demonstrate, through the careful use of textual evidence, the ability to support, refute, or modify another reader's claim about a reading.
24. Demonstrate the ability to subordinate narration and exposition to argument.
25. Review one's own writing in relation to grammatical issues.
26. Effectively employ a full range of verb structures, including progression and perfect tenses, auxiliaries, infinitives, participles, and irregular verb forms.
27. Show control of subject/verb agreement.
28. Show control of pronoun reference and of possessive forms.

TITLE: **ENGLISH III**
GRADE: **11TH**

RESOURCE MATERIALS: Text-*Literature & Language, American Literature* (McDougal Littell), Novels, Films, Handouts, Support Literature. Advancing Vocabulary Skills-Short Version, 3rd Edition by Nist and Mohr.

CRITERIA FOR EVALUATION AND ASSESSMENT: Tests, Quizzes, Class Work, Discussion, Group Activities, Research Reports, Independent Projects

STATE STANDARDS:

Grades 11-12

LA 12.1 Reading: Students will learn and apply reading skills and strategies to comprehend text.

LA 12.1.1	**Concepts of Print:** Students will demonstrate knowledge of the concepts of print.
	Mastered in Grade 1 and blended with other skills at this grade level.
LA 12.1.2	**Phonological Awareness:** Students will demonstrate phonological awareness through oral activities.
	Mastered in Grade 1 and blended with other skills at this grade level.
LA 12.1.3	**Word Analysis:** Students will use phonetic analysis to read and write grade-level text.
LA 12.1.3.a	Know and apply phonetic and structural analysis (e.g., Greek and Latin roots and affixes, multisyllabic words) when reading, writing, and spelling grade-level text.
LA 12.1.4	**Fluency:** Students will develop accuracy, phrasing, and expression while reading a variety of grade-level print/digital text to support comprehension.
LA 12.1.4.a	Adjust reading strategies to persevere through text of increasing length and/or complexity.
LA 12.1.5	**Vocabulary:** Students will build and use conversational, academic, and content-specific grade-level vocabulary.
LA 12.1.5.a	Apply word analysis strategies to determine the meaning of unknown and multiple-meaning words across content areas to aid in comprehension and improve writing.
LA 12.1.5.b	*Skills blended with 10.1.5.a at this level.*
LA 12.1.5.c	Acquire new academic and content-specific grade-level vocabulary, relate to prior knowledge, and apply in new situations.
LA 12.1.5.d	Use semantic relationships (e.g., figurative language, connotations, technical and multiple-meaning words, and key terms or phrases) to analyze the impact of specific word choices on meaning and tone, aid in comprehension, and improve writing.
LA 12.1.5.e	Verify meaning and pronunciation of words or phrases using print and/or digital reference materials when appropriate.
LA 12.1.6	**Comprehension:** Students will construct meaning by applying prior knowledge, using text information, and monitoring comprehension while reading increasingly complex grade-level literary and informational text.

LA 12.1.6.a	Evaluate the meaning, reliability, and validity of text considering author's purpose, perspective, rhetorical style, and contextual influences.
LA 12.1.6.b	Analyze and evaluate the relationships between elements of literary text (e.g., characterization, setting, plot development, internal and external conflict, inferred and recurring themes, point of view, tone, mood).
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LA 12.1.6.o	Demonstrate an understanding of complex text by using textual evidence to support analysis, reflection, and research via multiple mediums (e.g., writing, artistic representation, video, other media).
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SENTENCE FLUENCY – Smooth writing patterns and rhythmic flow of language.
CONVENTIONS – Using appropriate editing and presentation skills.

Criteria For Evaluation And Assessments:

1. Give a practice test on State Writing once each quarter.
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3. Put visual aide materials up in the classroom to promote the six traits.
4. Administer appropriate rubrics and assessments.

MULTICULTURAL EDUCATION

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1. A district assessment form is used to document multicultural education in the classroom.
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Elements of Novels: October Sky
Writing Workshop: Eyewitness Report (Observation and Description)
Language Workshop: Achieving Sentence Variety
Vocabulary Workshop: Building a Stronger Vocabulary
Reading Skills: Primary and Secondary Sources

Unit 2: From Colony to Country 1620 – 1800

Elements of Nonfiction: The Examination of Sarah Good; History Clashes with Commercialism; from Sinners in the Hands of an Angry God; Speech in the Virginia Convention; The Declaration of Independence; from The Declaration of the Rights of Woman; Letter to the Rev. Samson Occom; Letter to John Adams; What Is an American?; from Poor Richard's Almanack; Lecture to a Missionary; from Stride Toward Freedom; Necessary to Protect Ourselves
Elements of Poetry: To My Dear and Loving Husband; Upon the Burning of Our House, July 10th, 1666; from I Am Joaquin/Yo Soy Joaquin
Elements of Drama: The Crucible
Writing Workshop: Critical Review (Responding to Literature); Persuasion
Language Workshop: Using Gerunds; Using Verb Tenses in Sequence
Vocabulary Workshop: Interpreting Analogies; Using Context Clues
Reading Skills: Distinguishing Fact from Opinion

Unit 3: The Spirit of Individualism 1800 – 1855

Elements of Fiction: The Devil and Tom Walker; Gary Keillor; The Masque of the Red Death; The Fall of the House of Usher; Dr. Heidegger's Experiment; A Rose for Emily

Elements of Nonfiction: from Self-Reliance; from Civil Disobedience; On Civil Disobedience; from Walden; from Danse Macabre, by Stephen King

Elements of Poetry: A Psalm of Life; from Memoirs; I Hear America Singing; I Sit and Look Out; from Song of Myself; Ode to Walt Whitman; Danse Russe; anyone lived in a pretty how town; Ending Poem; Tia Chucha; The Raven; Spleen LXXXI, by Charles Baudelaire; Monody (Elegy for Nathaniel Hawthorne)

Elements of Novels: Narrative of the Life of Frederick Douglass

Writing Workshop: Reflective Essay (Personal and Reflective); Short Story (Narrative and Literary)

Language Workshop: Using Adjectives and Adjective Phrases; Using Adverbs and Adverb Phrases

Vocabulary Workshop: Analyzing Word Parts – Roots; Using Word Origins to Learn New Words

Unit 4: Conflict and Expansion 1850 – 1900

Elements of Fiction: An Occurrence at Owl Creek Bridge; A Mystery of Heroism; The Indian and the Hundred Cows/El Indito de las Cien Vacas; High Horse's Courting from Black Elk Speaks; The Notorious Jumping Frog of Calaveras County; A Wagner Matinee; The Legend of Gregorio Cortez

Elements of Nonfiction: from Narrative of the Life of Frederick Douglass, an American Slave; Letter to Sarah Ballou; The Gettysburg Address; from Coming of Age in Mississippi; I Will Fight No More Forever; from The Autobiography of Mark Twain; from Life on the Mississippi; Epigrams; The First Jumping Frog; from Letters of a Woman Homesteader

Elements of Poetry: Stanzas on Freedom; Free Labor; Frederick Douglass; Ballad of Birmingham

Writing Workshop: Literary Interpretation (Responding to Literature);

Language Workshop: Creating Compound Sentences; Using Adjective and Adverb Clauses

Vocabulary Workshop: Comprehending Words with Multiple Meanings; Homophones, Homographs, and Homonyms

Reading Skills: Evaluating and Argument

Communication Workshop: Storytelling (Speaking and Listening)

Unit 5: The Changing Face of America 1855 - 1925

Elements of Fiction: The Yellow Wallpaper; The Story of an Hour; Seventeen Syllables; I Stand Here Ironing; Winter Dreams; America and I; In the American Society

Elements of Nonfiction: Letter to Thomas Wentworth Higginson; from Complaints and Disorders; The New Immigrants

Elements of Poetry: This is my letter to the World; "Hope" is the thing with feathers-; Success is counted sweetest; Much Madness is divinest Sense; Letter to Thomas Wentworth Higginson; My life closed twice before its close-; After great pain, a formal feeling comes-; I heard a Fly buzz-when I died-; Because I could not stop for Death-; Adolescence-III; Ironing Their Clothes; Chicago; Lucinda Matlock; Richard Cory; Miniver Cheevy; We Wear the

Mask; Sympathy; My Father and the Figtree; Defining the Grateful Gesture; Refugee Ship

Elements of Novels: When the Legends Die

Writing Workshop: Comparison-and-Contrast Essay (Informative Exposition)

Language Workshop: Using Noun Clauses

Vocabulary Workshop: Recognizing Denotations and Connotations

Reading Skills: Finding Evidence; Comparing Text and Graphic Information

Unit 6: The Modern Age 1900 – 1940

Elements of Fiction: The End of Something; The Jilting of Granny Weatherall; The Man Who Was Almost a Man

Elements of Nonfiction: from Love, Langston by Dahleen Glanton, When the Negro Was in Vogue; How it Feels to Be Colored Me; from Zora Neale Hurston: A Cautionary Tale and a Partisan View; My Dungeon Ghook; Letter to My Nephew; Thoughts on the African-American Novel; In Praise of Robert Frost by John F. Kennedy; from The Diearis

Elements of Poetry: I, Too; Harlem; The Weary Blues; Flute Players by Jean-Joseph Rabearivelo; My City; Any Human to Another; If We Must Die; A Black Man Talks of Reaping; Life for My Child Is Simple; Primer for Blacks; Acquainted with the Night; Mending Wall; "Out, Out-"; The Death of the Hired Man; The Love Song of J. Alfred Prufrock; Mirror; Self in 1958

Writing Workshop: Research Report

Language Workshop: Making Sentence Parts Parallel

Vocabulary Workshop: Understanding Informal Language

Unit 7: War Abroad and Conflict at Home 1940 – Present

Elements of Fiction: Armistice; Ambush; The Writer in the Family; Teenage Wasteland; Separating; Hostage

Elements of Nonfiction: from Survival in Auschwitz; Why Soldiers Won't Talk; Letter from Paradise; Point/Counterpoint: The Japanese-American Internment; from Letter from Birmingham Jail; Mother Tongue; Straw into Gold: The Metamorphosis of the Everyday

Elements of Poetry: The Death of the Ball Turret Gunner; In Response to Executive Order 9066; Camouflaging the Chimera; Deciding; At the Justice Department, November 15, 1969; Revolutionary Dreams; Mexicans Begin Jogging; Legal Alien; The Legend; The Latin Deli: An Ars Poetica

Elements of Drama: Wandering

Language Workshop: Using Sentence Closers

Vocabulary Workshop: Analyzing Word Parts – Affixes

Reading Skills: Analyzing an Issue

Communication Workshop: Multimedia Exhibit (Using Technology)

TITLE: **ENGLISH IV**
GRADE: **12TH**

RESOURCE MATERIALS: Text-*The Language of Literature, British Literature* (McDougal Littell), Novels, Films, Handouts, Support Literature. Advanced Word Power by Johnson and Gamer.

CRITERIA FOR EVALUATION AND ASSESSMENT: Tests, Quizzes, Class Work, Discussion, Group Activities, Research Reports, Independent Projects

STATE STANDARDS:

LA 12.2 Writing: Students will learn and apply writing skills and strategies to communicate.

LA 12.2.1	**Writing Process:** Students will apply the writing process to plan, draft, revise, edit, and publish writing using correct spelling, grammar, punctuation, and other conventions of standard English appropriate for grade-level.
LA 12.2.1.a	Use multiple writing strategies recursively to investigate and generate ideas, organize information, guide writing, answer questions, and synthesize information.
LA 12.2.1.b	Generate a draft that interprets complex ideas, raises relevant questions, solves problems, or evaluates ideas through synthesis, analysis, reflection, and use of effective organizational patterns that are appropriate to the purpose and intended audience.
LA 12.2.1.c	Gather and use relevant information and evidence from multiple authoritative print and/or digital sources including primary and secondary sources to support claims or theses.
LA 12.2.1.d	Apply standard rules of grammar and paragraph formation, including parallel structure and subordination.
LA 12.2.1.e	Revise to improve and clarify writing through self-monitoring strategies and feedback from others.
LA 12.2.1.f	Provide oral, written, and/or digital descriptive feedback to other writers.
LA 12.2.1.g	Adjust writing processes to persevere in short and long-term writing tasks of increasing length and complexity.
LA 12.2.1.h	Proofread and edit writing recursively for format and conventions of standard English (e.g., spelling, capitalization, grammar, punctuation, syntax, semantics).
LA 12.2.1.i	Display academic honesty and integrity by avoiding plagiarism and/or overreliance on any one source and by following a standard format for citation.
LA 12.2.1.j	Publish a legible document using a variety of media, and apply various formatting techniques to enhance the readability and impact of the document (e.g., fonts, spacing, design, images, style conventions, citations, and manuscript requirements).

LA 12.2.2	**Writing Modes:** Students will write in multiple modes for a variety of purposes and audiences across disciplines.
LA 12.2.2.a	Communicate information and ideas effectively in analytic, argumentative, descriptive, informative, narrative, poetic, persuasive, and reflective modes to multiple audiences using a variety of media and formats.
LA 12.2.2.b	Provide evidence from literary or informational text to support analysis, reflection, and research.
LA 12.2.2.c	Conduct and publish both short and sustained research projects to answer questions or solve problems using multiple primary and/or secondary sources to support theses.
LA 12.2.2.d	Use precise word choice and domain-specific vocabulary to write in a variety of modes.
LA 12.2.2.e	Analyze various mentor texts and/or exemplars in order to create a similar piece.

LA 12.3 Speaking and Listening: Students will develop and apply speaking and listening skills and strategies to communicate for a variety of purposes.

LA 12.3.1	**Speaking:** Students will develop, apply, and refine speaking skills and strategies to communicate key ideas in a variety of situations.
LA 12.3.1.a	Communicate ideas and information in a clear and concise manner suited to the purpose, setting, and audience (formal voice or informal voice), using appropriate word choice, grammar, and sentence structure.
LA 12.3.1.b	Demonstrate and adjust speaking techniques (e.g., appropriate eye contact, pacing, nonverbal cues, word choice, intonation) for a variety of purposes and situations, including interpreting text.
LA 12.3.1.c	Make strategic use of appropriate visual and/or digital tools to enhance understanding of findings, reasoning, and evidence for specific audiences.
LA 12.3.1.d	Convey a perspective with clear reasoning and valid evidence.
LA 12.3.1.e	Ask pertinent questions to acquire or confirm information.
LA 12.3.1.f	Anticipate and address alternative or opposing perspectives when appropriate to the mode of speaking.
LA 12.3.2	**Listening:** Students will develop and demonstrate active listening skills across a variety of situations.
LA 12.3.2.a	Select and utilize active and attentive listening skills (e.g., eye contact, nonverbal cues, questioning, summarizing) for multiple situations and modalities (e.g., small/large group, presentation, one-to-one, digital).
LA 12.3.2.b	Analyze the purpose of information presented in diverse media and formats, evaluate its motives (e.g., social, commercial, political), and determine its credibility.

LA 12.3.2.c	Complete a task following complex multi-step directions.

LA 12.3.3	**Reciprocal Communication**: Students will develop, apply, and adapt reciprocal communication skills.
LA 12.3.3.a	Integrate professional etiquette and social protocols when communicating.
LA 12.3.3.b	Demonstrate awareness of and sensitivity to the appropriate use of words (e.g., stereotypes, connotations, subtleties of language) in conversation.
LA 12.3.3.c	Apply conversation strategies to recognize, consider, and justify new information presented by others in relationship to one's own ideas.
LA 12.3.3.d	Listen, ask probing questions, and consider information to generate new ideas and challenge assumptions to a topic, text, or issue under study.
LA 12.3.3.e	Collaboratively converse with peers and adults on grade-appropriate topics and texts, building on others' ideas to clearly and persuasively express one's own views while respecting diverse perspectives.

LA 12.4 Multiple Literacies: Students will apply information fluency and practice digital citizenship.

LA 12.4.1	**Information Fluency:** Students will evaluate, create, and communicate information in a variety of media and formats (textual, visual, and digital).
LA 12.4.1.a	Locate, organize, analyze, evaluate, and synthesize information from print and digital resources to create new understandings and defend conclusions.
LA 12.4.1.b	Demonstrate ethical use of information and copyright guidelines by appropriately quoting or paraphrasing from a text and citing the source using available resources (e.g., online citation tools, publication guidelines).
LA 12.4.1.c	Use or decipher multiple formats of print and digital text (e.g., cursive, manuscript, font, graphics, symbols).

LA 12.4.2	**Digital Citizenship:** Students will practice the norms of appropriate and responsible technology use.
LA 12.4.2.a	Practice safe and ethical behaviors when communicating and interacting with others digitally (e.g., safe information to share, appropriate language use, utilize appropriate sites and materials, respect diverse perspectives).
LA 12.4.2.b	Use appropriate digital tools (e.g., social media, online collaborative tools, apps) to communicate with others for conveying information, gathering opinions, and solving problems.

SIX TRAIT CURRICULUM

The Johnson County Central Public School District endorses and implements the Six Traits model of writing instruction and assessment. It is an ongoing expectation that all faculty members will implement this mode of language instruction in their classroom.

IDEAS – The writer's primary message, point of story, showing details and clarity.

ORGANIZATION – Putting information into an order that shows direction and purpose.
VOICE – Includes the expression of a writer's personality; an awareness of the intended audience; and a skillful blend of detail, enthusiasm, and knowledge of the topic.
WORD CHOICE – Selecting, identifying, and revising specific descriptive language.
SENTENCE FLUENCY – Smooth writing patterns and rhythmic flow of language.
CONVENTIONS – Using appropriate editing and presentation skills.

Criteria For Evaluation And Assessments:

1. Give a practice test on State Writing once each quarter.
2. Use district assessment form to implement six traits writing in the classroom.
3. Put visual aide materials up in the classroom to promote the six traits.
4. Administer appropriate rubrics and assessments.

MULTICULTURAL EDUCATION

The instructional program at Johnson County Central Public Schools incorporates multicultural education in all curriculum areas at all grades. Multicultural education includes, but is not limited to, studies relative to the culture, history, and contributions of African Americans, Hispanic Americans, Native Americans, Asian Americans and European Americans with special emphasis on human relations and sensitivity toward all races.

Criteria For Evaluation And Assessments:

1. A district assessment form is used to document multicultural education in the classroom.
2. An annual status report is provided to the local board of education.

UNIT I: THE ANGLO-SAXON AND MEDIEVAL PERIODS 449-1485

Elements of Fiction: from The Decameron; from Sir Gawain and the Green Knight; from Le Morte d'Arthur; from the Ramayana
Elements of Nonfiction: from A History of the English Church and People; from The Paston Letters; from Preface to First Edition of *Le Morte d'Arthur*; from The Book of Margery Kempe
Elements of Poetry: from Beowulf; from the Iliad; from the Exeter Book: The Seafarer and The Wife's Lament; from The Canterbury Tales: The Prologue and The Pardoner's Tale; Barbara Allan; Sir Patrick Spens; Get Up and Bar the Door
Writer's Workshop: Interpretation, Firsthand and Expressive Writing, Characterization
Language Workshop: Active Voice of Verbs, Punctuation, Organization
Thinking Skills Workshop: Making Inferences, Generalizing

UNIT II: THE ENGLISH RENAISSANCE 1485-1660

Elements of Poetry: My Lute, Awake!; On Monsieur's Departure; Sonnet 30 and 75; The Passionate Shepherd to His Love; The Nymph's Reply to the Shepherd; Sonnet 29, 116, 130; Sonnet 169 and 292; Fear No More the Heat o' the Sun; A Valediction: Forbidding Mourning; Holy Sonnet 10; On My First Son; Still to Be Neat; To the Virgins, to Make Much of Time; To His Coy Mistress; To Lucasta, Going to the Wars; from the Rubaiyat; How Soon Hath Time; When I Consider How My Light Is Spent; from Eve's Apology in Defense of Women
Elements of Drama: Macbeth
Elements of Novels: The Scarlet Letter

Writer's Workshop: Creative Response, Narrative and Literary Writing, Figurative Language
Language Workshop: Degrees of Comparison
Vocabulary Workshop: Analogies

UNIT III: THE RESTORATION AND ENLIGHTENMENT 1660-1798

Elements of Nonfiction: from The Diary of Samuel Pepys; from The Spectator; from Letters to His Son; Letter to Her Daughter; from Some Reflections upon Marriage; from An Academy for Women; A Modest Proposal; from The Crisis; from A Vindication of the Rights of Woman; from The Rambler-On Spring; from The Idler-On Idleness; from A Dictionary of the English Language; from The Life of Samuel Johnson; from The Diary and Letters of Madame d'Arblay; from Memoirs of Madame Vigee-Lebrun
Elements of Poetry: from An Essay on Man; Epigrams, from An Essay on Criticism; The Acorn and the Pumpkin; The Value of Knowledge; Elegy Written in a Country Churchyard; Thirty-Eight
Writer's Workshop: Creative Response, Informative Exposition, Tone, Figurative Language
Language Workshop: Complex Sentences
Thinking Skills Workshop: Drawing Conclusions

UNIT IV: THE FLOWERING OF ROMANTICISM 1798-1832

Elements of Nonfiction: from the Grasmere Journals; from A Defense of Poetry
Elements of Poetry: from Songs of Innocence- The Lamb, The Little Boy Lost, The Little Boy Found; from Songs of Experience- The Tyger, The Fly, The Sick Rose; Haiku; Lines Composed A Few Miles…; Composed upon Westminster…; The World Is Too Much with Us; It Is a Beauteous Evening; I Wandered Lonely As a Cloud; Kubla Khan; She Walks in Beauty; When We Two Parted; from Childe Harold's Pilgrimage; Ozymandias; Ode to the West Wind; To a Skylark; The Lotus-Blossom Cowers; Ode on a Grecian Urn; To Autumn; When I Have Fears…; Bright Star, Would I…
Elements of Novels: Frankenstein
Writer's Workshop: Direct Response, Informative Exposition, Using Comparisons, Using Sensory Details
Language Workshop: Avoiding Misplaced Modifiers, Dangling Modifiers
Thinking Skills Workshop: Classifying Information

UNIT V: THE VICTORIANS 1832-1901

Elements of Fiction: Christmas Storms and Sunshine; The Miracle of Purun Bhagat; What Men Live By; The King Is Dead, Long Live the King
Elements of Nonfiction: A Warning Against Passion; from Journal
Elements of Poetry: from In Memoriam; My Last Duchess; Porphyria's Lover; Sonnet 43; Dover Beach; To Marguerite- Continued; Pied Beauty; Spring and Fall: To a Young Child; The Man He Killed; Ah, Are You Digging on My Grave?; When I Was One-and-Twenty; To an Athlete Dying Young; 1996
Elements of Drama: The Importance of Being Earnest
Writer's Workshop: Criticism, Persuasion, Achieving Unity Within Paragraphs
Language Workshop: Adjective Clauses, Relative Pronouns, Quotations, Using Compound Verbs
Thinking Skills Workshop: Evaluating Arguments, Making Judgments

UNIT VI: EMERGING MODERNISM 1901-1950

Elements of Fiction: The Kit-Bag; The Infant Prodigy; The Duchess and the Jeweller; Tobermory; The Demon Lover; The Rocking-Horse Winner; Araby; A Cup of Tea

Elements of Nonfiction: from Virginia Woolf; from Testament of Youth; from The Speeches, May 19, 1940; from Letters from Westerbork; Words and Behavior; A Hanging

Elements of Poetry: What I Expected; An Irish Airman Foresees His Death; The Soldier; Dreamers; To My Mother; The Second Coming; Sailing to Byzantium; Preludes; Musee des Beaux Arts; The Unknown Citizen; Do Not Go Gentle into That Good Night; In My Craft or Sullen Art; Writing/ Escritura

Elements of Drama: The Importance of Being Earnest

Elements of Novels: The Grapes of Wrath

Writer's Workshop: Criticism, Research Report, Outlining, Citing Sources, Outlining

Language Workshop: Compound-Complex Sentences, Avoiding Phrase and Clause Fragments, Punctuating Quotations

Thinking Skills Workshop: Using Criteria to Make Decisions

UNIT VII: CONTEMPORARY VOICES 1950-Present

Elements of Fiction: At the Pitt-Rivers; Significant Moments…; A Sunrise on the Veld; The Distant Past; Civil Peace; Six Feet of the Country; The First Year of My Life; The Happy Man; Paintbox Place

Elements of Nonfiction: We'll Never Conquer Space; Writing as an Act of Hope

Elements of Poetry: Digging; The Horses; In Music; Telephone Conversation; From Midsummer; It Is Not Bred in Me; The Frog Prince; Not Waving but Drowning

Elements of Drama: That's All

Writer's Workshop: Analysis, Persuasion, Using Transitional Words

Language Workshop: Adverb Clauses, Using Compound Prepositions, Using Elliptical Clauses, Organizing with Adverbs and Adverb Phrases

Thinking Skills Workshop: Considering All Factors, Using Facts and Statistics

TITLE: **ADVANCED ENGLISH IV**
GRADE: **12TH**

RESOURCE MATERIALS: Text-*The Language of Literature, British Literature* (McDougal Littell), Novels, Films, Handouts, Support Literature. Vocabulary Power Plus for the New SAT: Vocabulary, Reading and Writing Exercises for High Scores, Book Three by Prestwick House.

CRITERIA FOR EVALUATION AND ASSESSMENT: Tests, Quizzes, Class Work, Discussion, Group Activities, Research Reports, Independent Projects

STATE STANDARDS:

LA 12.2 Writing: Students will learn and apply writing skills and strategies to communicate.

LA 12.2.1	**Writing Process:** Students will apply the writing process to plan, draft, revise, edit, and publish writing using correct spelling, grammar, punctuation, and other conventions of standard English appropriate for grade-level.
LA 12.2.1.a	Use multiple writing strategies recursively to investigate and generate ideas, organize information, guide writing, answer questions, and synthesize information.
LA 12.2.1.b	Generate a draft that interprets complex ideas, raises relevant questions, solves problems, or evaluates ideas through synthesis, analysis, reflection, and use of effective organizational patterns that are appropriate to the purpose and intended audience.
LA 12.2.1.c	Gather and use relevant information and evidence from multiple authoritative print and/or digital sources including primary and secondary sources to support claims or theses.
LA 12.2.1.d	Apply standard rules of grammar and paragraph formation, including parallel structure and subordination.
LA 12.2.1.e	Revise to improve and clarify writing through self-monitoring strategies and feedback from others.
LA 12.2.1.f	Provide oral, written, and/or digital descriptive feedback to other writers.
LA 12.2.1.g	Adjust writing processes to persevere in short and long-term writing tasks of increasing length and complexity.
LA 12.2.1.h	Proofread and edit writing recursively for format and conventions of standard English (e.g., spelling, capitalization, grammar, punctuation, syntax, semantics).
LA 12.2.1.i	Display academic honesty and integrity by avoiding plagiarism and/or overreliance on any one source and by following a standard format for citation.
LA 12.2.1.j	Publish a legible document using a variety of media, and apply various formatting techniques to enhance the readability and impact of the document (e.g., fonts, spacing, design, images, style conventions, citations, and manuscript requirements).

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WORD CHOICE – Selecting, identifying, and revising specific descriptive language.
SENTENCE FLUENCY – Smooth writing patterns and rhythmic flow of language.
CONVENTIONS – Using appropriate editing and presentation skills.

Criteria For Evaluation And Assessments:

1. Give a practice test on State Writing once each quarter.
2. Use district assessment form to implement six traits writing in the classroom.
3. Put visual aide materials up in the classroom to promote the six traits.
4. Administer appropriate rubrics and assessments.

MULTICULTURAL EDUCATION

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Language Workshop: Complex Sentences
Thinking Skills Workshop: Drawing Conclusions

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UNIT VI: EMERGING MODERNISM 1901-1950

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Elements of Poetry: What I Expected; An Irish Airman Foresees His Death; The Soldier; Dreamers; To My Mother; The Second Coming; Sailing to Byzantium; Preludes; Musee des Beaux Arts; The Unknown Citizen; Do Not Go Gentle into That Good Night; In My Craft or Sullen Art; Writing/ Escritura

Elements of Drama: The Importance of Being Earnest

Elements of Novels: The Grapes of Wrath

Writer's Workshop: Criticism, Research Report, Outlining, Citing Sources, Outlining

Language Workshop: Compound-Complex Sentences, Avoiding Phrase and Clause Fragments, Punctuating Quotations

Thinking Skills Workshop: Using Criteria to Make Decisions

UNIT VII: CONTEMPORARY VOICES 1950-Present

Elements of Fiction: At the Pitt-Rivers; Significant Moments…; A Sunrise on the Veld; The Distant Past; Civil Peace; Six Feet of the Country; The First Year of My Life; The Happy Man; Paintbox Place

Elements of Nonfiction: We'll Never Conquer Space; Writing as an Act of Hope

Elements of Poetry: Digging; The Horses; In Music; Telephone Conversation; From Midsummer; It Is Not Bred in Me; The Frog Prince; Not Waving but Drowning

Elements of Drama: That's All

Writer's Workshop: Analysis, Persuasion, Using Transitional Words

Language Workshop: Adverb Clauses, Using Compound Prepositions, Using Elliptical Clauses, Organizing with Adverbs and Adverb Phrases

Thinking Skills Workshop: Considering All Factors, Using Facts and Statistics

Students will be expected to demonstrate the following competencies:

1. Demonstrate the critical thinking skills, reading competencies, writing competencies, grammatical competencies, and research competencies called upon in English 11A.
2. Evaluate conflicting interpretations of a reading.
3. Demonstrate the effective use of textual evidence in support of claims.
4. Evaluate the strengths and weaknesses in the arguments of peers.
5. Offer independently developed analytical arguments about a reading.
6. Raise questions about a text, and distinguish the questions that may lead to fuller exploration of that text.
7. Evaluate the usefulness of secondary sources.
8. Show stylistic awareness of a writer's word choices, sentence structures, and tone of voice.
9. Conduct research as critical readers-skimming, evaluating, discarding, selecting-so as to focus on a relatively few sources appropriate to a particular research projects.
10. Learn to evaluate internet resources receptively but skeptically, alert to issues of responsibility, authority, and documentation.

11. Demonstrate effective reading as an editor of one's own writing and the writing of peer.
12. Show an ability to re-read one's own writing with attention to the interaction of a primary text, scholarly voice, and the writer's own controlling voice.
13. Recognize and avoid plagiarism.
14. Writer interpretive essay that work with more than one text.
15. Effectively support claims with textual evidence.
16. Draw upon secondary sources in service of a central argument.
17. Appropriately employ summary, paraphrase, quotations and citation.
18. Show an awareness of multiple interpretations and the possibilities of negotiating among them.
19. Revise essays stylistically.
20. Use and extend vocabulary for speaking about grammatical issues.
21. Demonstrate control of the grammar of quotations.
22. Participate in the librarian's tour of the Love Library system, and produce at least one piece of writing that draws upon Love Library resources.
23. Show an awareness of the relevance of historical and biographical research to the interpretation of literary text.
24. Learn to critically evaluate internet resources.

TITLE: **DRAMA/SPEECH**
GRADE: **9^{TH} –12^{TH}**

RESOURCE MATERIALS: "Basic Drama Projects" (by Perfection Learning) literary works, periodicals, library, videos

CRITERIA FOR EVALUATION AND ASSESSMENT: performances, level of improvement in writing, delivery and memorization, attitude and work ethic

SIX TRAIT CURRICULUM

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ORGANIZATION - Putting information into an order that show direction and purpose.
VOICE - Includes the expression of a writer's personality; an awareness of the intended audience; and a skillful blend of detail, enthusiasm, and knowledge of the topic.
WORD CHOICE - Selecting, identifying, and reviewing specific descriptive language.
SENTENCE FLUENCY - Smooth writing patterns and rhythmic flow of language.
CONVENTIONS - Using appropriate editing and presentation skills.

Criteria For Evaluation And Assessments:

1. Students will do a report using library resources.
2. Use district assessment form to implement six trait writing in the classroom.
3. Put visual aide materials up in the classroom to promote the six traits.
4. Administer appropriate rubrics and assessments.

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The instructional program at Johnson County Central Public Schools incorporates multicultural education in all curriculum areas at all grades. Multicultural education includes, but is not limited to, studies relative to culture, history, and contributions of African Americans, Hispanic Americans, Native Americans, Asian Americans and European Americans with special emphasis on human relations and sensitivity toward all races.

Criteria For Evaluation And Assessments:

1. A district assessment form is used to document multicultural education in the classroom.
2. An annual status report is provided to the local board of education.

WRITING UNIT:

Composition of Informative, Persuasive or Entertainment speeches
Composition of introductory remarks for Serious Prose, Humorous Prose, Duet Acting, Poetry, Oral Interpretation of Drama
Composition of Extemporaneous and Impromptu speeches

POLISH AND DELIVERY UNIT:

Perfection of vocal qualities such as dialect, inflection and believability
Perfection of body language, eye contact, gestures and usage of visual aids

TOURNAMENT ETIQUETTE UNIT:

The following items will be covered in this unit:
Proper attire for contests
Proper behavior for contests
Tournament rules and procedures
Team spirit and support

RESEARCH AND DEVELOPMENT UNIT:

Research news media for new evidence and support
Find new sources to keep presentations up to date and cutting edge

DRAMA CURRICULUM OBJECTIVES:

1. Create and perform warm-up routines
2. Act for believability
3. Pantomime
4. Use improvisation to create a setting, a character, or a plot.
5. Plan and present stage movement.
6. Understand stage directions.
7. Use voice production and articulation.
8. Work with an ensemble to create improvised scenes.
9. Work with an ensemble to create scripted scenes.
10. Create characters and improvise a scene individually and with a partner.
11. Develop dramatic roles.
12. Develop comic roles.
13. Use blocking to help create a scene.
14. Create and present a set design.
15. Create and present lighting.
16. Create sound effects.
17. Prepare and present costumes designs for a character.
18. Create and describe a prop plot for a play.
19. Apply makeup and discuss the process.
20. Write scripts for characters.

TITLE: **JOURNALISM**
GRADE: **11TH – 12th**

RESOURCE MATERIALS: Textbook, Walsworth resources, media, computer software, Internet.

CRITERIA FOR EVALUATION AND ASSESSMENT: Tests, discussions, projects, individual and group work, writing assignments.

SIX TRAIT CURRICULUM

The Johnson County Central Public School District endorses and implements the Six Traits model of writing instruction and assessment. It is an ongoing expectation that all faculty members will implement this mode of language instruction in their classroom.

IDEAS – The writer's primary message, point of story, showing details and clarity.
ORGANIZATION – Putting information into an order that shows direction and purpose.
VOICE – Includes the expression of a writer's personality; an awareness of the intended audience; and a skillful blend of detail, enthusiasm, and knowledge of the topic.
WORD CHOICE – Selecting, identifying, and revising specific descriptive language.
SENTENCE FLUENCY – Smooth writing patterns and rhythmic flow of language.
CONVENTIONS – Using appropriate editing and presentation skills.

Criteria For Evaluation And Assessments:

1. Weekly writing skills (articles, reports and journals).
2. Use district assessment form to implement six traits writing in the classroom.
3. Put visual aide materials up in the classroom to promote the six traits.
4. Administer appropriate rubrics and assessments.

MULTICULTURAL EDUCATION

The instructional program at Johnson County Central Public Schools incorporates multicultural education in all curriculum areas at all grades. Multicultural education includes, but is not limited to, studies relative to the culture, history, and contributions of African Americans, Hispanic Americans, Native Americans, Asian Americans and European Americans with special emphasis on human relations and sensitivity toward all races.

Criteria For Evaluation And Assessments:

1. A district assessment form is used to document multicultural education in the classroom.
2. An annual status report is provided to the local board of education.

UNIT 1: BACKGROUND

A brief history of American Journalism
Rights and Responsibilities of journalist

UNIT 2: COMPOSITION

- Styling and Editing
- News Writing
- Sports Writing
- Feature Writing
- Editorial Writing
- Column Writing
- Headline Writing

UNIT 3: PUTTING IT TOGETHER

- Newspaper Design
- Writing Yearbook Copy
- Yearbook Design
- Caption Writing
- Advertising
- Photography

UNIT 4: CAREERS

- Advertising
- Agricultural Journalism
- Book Publishing
- Business
- Commercial Art
- Copywriting
- Desktop Publishing
- Magazines
- News Agencies
- Newspapers
- Photography
- Public Relations
- Radio and Television
- Research
- Syndicates
- Teaching
- Online Communications

TITLE: **CREATIVE WRITING**
GRADE: **10^{TH} – 12^{th}**

RESOURCE MATERIALS: Textbook, Walsworth resources, media, computer software, Internet.

CRITERIA FOR EVALUATION AND ASSESSMENT: Tests, discussions, projects, individual and group work, writing assignments.

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CONVENTIONS – Using appropriate editing and presentation skills.

Criteria For Evaluation And Assessments:

1. Weekly writing skills (articles, reports and journals).
2. Use district assessment form to implement six traits writing in the classroom.
3. Put visual aide materials up in the classroom to promote the six traits.
4. Administer appropriate rubrics and assessments.

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UNIT 1: THE SHORT STORY

It's Not Just a Short Story
The Short Story Versus the Novel
In Short
Short Story Starters
A Great, Gripping End

UNIT 2: THE NOVEL

A Novel Definition
What's Your Theme?
About Characters
The Plot Line
Chronological Disorder
More on Dialogue

UNIT 3: BOOKS FOR PREREADERS

It's Not Child's Play
Books for Babies
Books for Toddlers
Picture Books

UNIT 4: BOOKS FOR CHILDREN AND YOUNG ADULTS

Easy Readers
Chapter Books
Books for the Middle Grades
Young Adult Books
Nonfiction

UNIT 5: THE SCREENPLAY

Writing for the Movies
Screenplay Versus Novels
In Three Acts
Scene Elements
Exposition
Learning the Lingo

UNIT 6: FUNCIONAL NONFICTION

Dispelling the Fiction
Letter to the Editor
The Press Release
The Travel Piece
Destination Articles

UNIT 7: LITERARY NONFICTION

The Memoir
Stitching It Together
Evaluating Your Work
Literary Criticism
The Literary Analysis

UNIT 8: POETRY

Defining Poetry
The Basics
Words and Images
Figures of Speech and Figurative Language
Putting Words on the Page
Poetry Pointers

UNIT 9: THE WRITING PROCESS

Getting Ideas
Planning
Researching
Organizing
Drafting
Editing
Evaluating
Publishing

UNIT 10: RHETORICAL DEVICES

Words at Your Disposal
Alliteration
Allusion
Analogy
Metaphor and Simile
Onomatopoeia
Repetition
Understatement

UNIT 11: WORD USAGE PITFALLS

Part of the Rewriting Process
Cliches
Weak Nouns, Verbs, Adjectives, and Adverbs
Unnecessary Words
Unclear, Unvaried, and Run-on Sentences
Inconsistent or Inappropriate Tone
Excessive Use of Passive Voice

TITLE: **LITERATURE SPECIALIZED**
GRADE: **10TH – 12th**

RESOURCE MATERIALS: Novels – Boy in the Striped Pajamas, The Curious Case of Benjamin Button, The Kite Runner, Marley and Me, My Sister's Keeper, The Thief of Always, The Time Traveler's Wife.

CRITERIA FOR EVALUATION AND ASSESSMENT: Tests, discussions, projects, participation.

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WORD CHOICE – Selecting, identifying, and revising specific descriptive language.
SENTENCE FLUENCY – Smooth writing patterns and rhythmic flow of language.
CONVENTIONS – Using appropriate editing and presentation skills.

Criteria For Evaluation And Assessments:

1. Weekly writing skills (articles, reports and journals).
2. Use district assessment form to implement six traits writing in the classroom.
3. Put visual aide materials up in the classroom to promote the six traits.
4. Administer appropriate rubrics and assessments.

MULTICULTURAL EDUCATION

The instructional program at Johnson County Central Public Schools incorporates multicultural education in all curriculum areas at all grades. Multicultural education includes, but is not limited to, studies relative to the culture, history, and contributions of African Americans, Hispanic Americans, Native Americans, Asian Americans and European Americans with special emphasis on human relations and sensitivity toward all races.

Criteria For Evaluation And Assessments:

1. A district assessment form is used to document multicultural education in the classroom.
2. An annual status report is provided to the local board of education.

THE NOVEL SELECTIONS WILL:

- Provide motivating and challenging experiences suitable for the learner's age, ability and social maturity
- Elicit personal, thoughtful critical responses
- Represent a range of styles and literary structures
- Have literary merit
- Use language effectively and responsibly, and use language that is essential to the work
- Broaden students' understanding of social, historical, geographical and cultural diversity
- Develop sensitivity and understanding that reflects individual differences such as age, gender, ethnicity, religion, disability, class and political/social values

STUDENTS WILL BE EXPECTED TO:

- Critically evaluate information presented
- Demonstrate that print texts are constructed for particular purposes and particular audiences
- Respond critically to texts of increasing complexity
- Recognize how their own ideas and perceptions are framed by what they read and view
- Demonstrate an awareness that personal values and points of view influence both the creation of text and the reader's/viewer's interpretation and response
- Explore and reflect on culture as portrayed in texts
- Identify the values inherent in a text

These curriculum outcomes demonstrate an emphasis on literature as a means of acquiring vicarious experiences, building reading strategies, and enhancing students' abilities to respond both personally and critically to the books they read and view. As students respond personally and critically to novels and other genre books, they simultaneously turn attention to their curriculum outcomes for speaking, listening, writing, and other ways of representing. In short, reading and responding to young adults literature provides opportunity for students to address curriculum outcomes that span all the language arts processes.

TITLE: **APPLIED LITERARY CONCEPTS**
GRADE: **9TH – 12TH**

RESOURCE MATERIALS: Notes, Handouts, Films, Novels, Support Literature

CRITERIA FOR EVALUATION AND ASSESSMENT: Tests, Quizzes, Class Work, Discussions, Group Activities, Research Reports, Independent Projects

STATE STANDARDS:

Grades 9-10

LA 10.1 Reading: Students will learn and apply reading skills and strategies to comprehend text.

LA 10.1.1	**Concepts of Print:** Students will demonstrate knowledge of the concepts of print.
	Mastered in Grade 1 and blended with other skills at this grade level.
LA 10.1.2	**Phonological Awareness:** Students will demonstrate phonological awareness through oral activities.
	Mastered in Grade 1 and blended with other skills at this grade level.
LA 10.1.3	**Word Analysis:** Students will use phonetic analysis to read and write grade-level text.
LA 10.1.3.a	Know and apply phonetic and structural analysis (e.g., Greek and Latin roots and affixes, multisyllabic words) when reading, writing, and spelling grade-level text.
LA 10.1.4	**Fluency:** Students will develop accuracy, phrasing, and expression while reading a variety of grade-level print/digital text to support comprehension.
LA 10.1.4.a	Adjust reading strategies to persevere through text of increasing length and/or complexity.
LA 10.1.5	**Vocabulary:** Students will build and use conversational, academic, and content-specific grade-level vocabulary.
LA 10.1.5.a	Apply word analysis strategies to determine the meaning of unknown and multiple-meaning words across content areas to aid in comprehension and improve writing.
LA 10.1.5.b	*Skills blended with 10.1.5.a at this level.*
LA 10.1.5.c	Acquire new academic and content-specific grade-level vocabulary, relate to prior knowledge, and apply in new situations.
LA 10.1.5.d	Use semantic relationships (e.g., figurative language, connotations, technical and multiple-meaning words) to analyze the impact of specific word choices on meaning and tone, aid in comprehension, and improve writing.
LA 10.1.5.e	Verify meaning and pronunciation of words or phrases using print and/or digital reference materials when appropriate.
LA 10.1.6	**Comprehension:** Students will construct meaning by applying prior knowledge, using text information, and monitoring comprehension while reading increasingly complex grade-level literary and informational text.
LA 10.1.6.a	Evaluate the meaning, reliability, and validity of text considering author's purpose, perspective, and contextual influences.
LA 10.1.6.b	Analyze and evaluate the relationships between elements of literary text (e.g., characterization, setting, plot development, internal and

	external conflict, inferred and recurring themes, point of view, tone, mood).
LA 10.1.6.c	Analyze the function and critique the effects of the author's use of literary devices (e.g., simile, metaphor, personification, idiom, oxymoron, hyperbole, alliteration, onomatopoeia, analogy, dialect, tone, mood).
LA 10.1.6.d	Summarize, analyze, and synthesize the themes and main ideas between a literary and informational work (print, digital, and/or other media).
LA 10.1.6.e	*Skills blended with 10.1.6.d at this level.*
LA 10.1.6.f	Interpret and evaluate information from print and digital text features to support comprehension.
LA 10.1.6.g	Cite specific textual evidence to analyze and evaluate the effects of historical, cultural, biographical, and political influences of literary and informational text written by culturally diverse authors, to develop a regional, national, and international multicultural perspective.
LA 10.1.6.h	*Skills blended with 10.1.6.g at this level.*
LA 10.1.6.i	Construct and/or answer literal, inferential, critical, and interpretive questions, analyzing and synthesizing evidence from the text and additional sources to support answers.
LA 10.1.6.j	Apply knowledge of organizational patterns to comprehend informational text (e.g., sequence, description, cause and effect, compare/contrast, fact/opinion, proposition/support, concept definition, question/answer).
LA 10.1.6.k	Select text for a particular purpose (e.g., answer a question, solve problems, enjoy, form an opinion, understand a specific viewpoint, predict outcomes, discover models for own writing, accomplish a task), citing evidence to support analysis, reflection, or research.
LA 10.1.6.l	Build background knowledge and activate prior knowledge to clarify text, deepen understanding, and make connections while reading complex text.
LA 10.1.6.m	Self-monitor comprehension and independently apply appropriate strategies to understand complex text.
LA 10.1.6.n	Formulate and justify inferences with text evidence while previewing, reading, and analyzing literary and informational text in various formats.
LA 10.1.6.o	Demonstrate an understanding of complex text by using textual evidence to support analysis, reflection, and research via multiple mediums (e.g., writing, artistic representation, video, other media).
LA 10.1.6.p	Analyze multiple interpretations of a story, drama, or poem (e.g., recorded or live production of a play or recorded novel or poetry), evaluating how each version interprets the source text.

LA 10.2 Writing: Students will learn and apply writing skills and strategies to communicate.

LA 10.2.1	**Writing Process:** Students will apply the writing process to plan, draft, revise, edit, and publish writing using correct spelling, grammar, punctuation, and other conventions of standard English appropriate for grade-level.
LA 10.2.1.a	Use multiple writing strategies recursively to investigate and generate ideas, organize information, guide writing, answer questions, and synthesize information.
LA 10.2.1.b	Generate a draft that conveys complex ideas and critical thinking through analysis, reflection, and use of effective organizational patterns that are appropriate to the purpose and intended audience.

LA 10.2.1.c	Gather and use relevant information and evidence from multiple authoritative print and/or digital sources including primary and secondary sources to support claims or theses.
LA 10.2.1.d	Apply standard rules of grammar and paragraph formation, including parallel structure and subordination.
LA 10.2.1.e	Revise to improve and clarify writing through self-monitoring strategies and feedback from others.
LA 10.2.1.f	Provide oral, written, and/or digital descriptive feedback to other writers.
LA 10.2.1.g	Adjust writing processes to persevere in short and long-term writing tasks of increasing length and complexity.
LA 10.2.1.h	Proofread and edit writing recursively for format and conventions of standard English (e.g., spelling, capitalization, grammar, punctuation, syntax, semantics).
LA 10.2.1.i	Display academic honesty and integrity by avoiding plagiarism and/or overreliance on any one source and by following a standard format for citation.
LA 10.2.1.j	Publish a legible document using a variety of media, and apply various formatting techniques to enhance the readability and impact of the document (e.g., fonts, spacing, design, images, style conventions, citations, and manuscript requirements).
LA 10.2.2	**Writing Modes:** Students will write in multiple modes for a variety of purposes and audiences across disciplines.
LA 10.2.2.a	Communicate information and ideas effectively in analytic, argumentative, descriptive, informative, narrative, poetic, persuasive, and reflective modes to multiple audiences using a variety of media and formats.
LA 10.2.2.b	Provide evidence from literary or informational text to support analysis, reflection, and research.
LA 10.2.2.c	Conduct and publish both short and sustained research projects to answer questions or solve problems using multiple primary and/or secondary sources to support theses.
LA 10.2.2.d	Use precise word choice and domain-specific vocabulary to write in a variety of modes.
LA 10.2.2.3	Analyze various mentor texts and/or exemplars in order to create a similar piece.

LA 10.3 Speaking and Listening: Students will develop and apply speaking and listening skills and strategies to communicate for a variety of purposes.

LA 10.3.1	**Speaking:** Students will develop, apply, and refine speaking skills and strategies to communicate key ideas in a variety of situations.
LA 10.3.1.a	Communicate ideas and information in a clear and concise manner suited to the purpose, setting, and audience (formal voice or informal voice), using appropriate word choice, grammar, and sentence structure.
LA 10.3.1.b	Demonstrate and adjust speaking techniques (e.g., appropriate eye contact, pacing, nonverbal cues, word choice, intonation) for a variety of purposes and situations, including interpreting text.
LA 10.3.1.c	Select and utilize appropriate visual and/or digital tools to enhance understanding for specific audiences.

LA 10.3.1.d	Convey a perspective with clear reasoning and valid evidence.
LA 10.3.1.e	Ask pertinent questions to acquire or confirm information.
LA 10.3.1.f	Anticipate and address alternative or opposing perspectives when appropriate to the mode of speaking.

LA 10.3.2	**Listening:** Students will develop and demonstrate active listening skills across a variety of situations.

LA 10.3.2.a	Select and utilize active and attentive listening skills (e.g., eye contact, nonverbal cues, questioning, summarizing) for multiple situations and modalities (e.g., small/large group, presentation, one-to-one, digital).
LA 10.3.2.b	Analyze the purpose of information presented in diverse media and formats, evaluate its motives (e.g., social, commercial, political), and determine its credibility.
LA 10.3.2.c	Complete a task following complex multi-step directions.

LA 10.3.3	**Reciprocal Communication**: Students will develop, apply, and adapt reciprocal communication skills.

LA 10.3.3.a	Integrate professional etiquette and social protocols when communicating.
LA 10.3.3.b	Demonstrate awareness of and sensitivity to the appropriate use of words (e.g., stereotypes, connotations, subtleties of language) in conversation.
LA 10.3.3.c	Apply conversation strategies to recognize, consider, and evaluate new information presented by others in relationship to one's own ideas.
LA 10.3.3.d	Listen, ask probing questions, and consider information to generate new ideas and challenge assumptions to a topic, text, or issue under study.
LA 10.3.3.e	Collaboratively converse with peers and adults on grade-appropriate topics and texts, building on others' ideas to clearly and persuasively express one's own views while respecting diverse perspectives.

LA 10.4 Multiple Literacies: Students will apply information fluency and practice digital citizenship.

LA 10.4.1	**Information Fluency:** Students will evaluate, create, and communicate information in a variety of media and formats (textual, visual, and digital).

LA 10.4.1.a	Locate, organize, analyze, evaluate, and synthesize information from print and digital resources to create new understandings and defend conclusions.
LA 10.4.1.b	Demonstrate ethical use of information and copyright guidelines by appropriately quoting or paraphrasing from a text and citing the source using available resources (e.g., online citation tools, publication guidelines).
LA 10.4.1.c	Use or decipher multiple formats of print and digital text (e.g., cursive, manuscript, font, graphics, symbols).

LA 10.4.2	**Digital Citizenship:** Students will practice the norms of appropriate and responsible technology use.

LA 10.4.2.a	Practice safe and ethical behaviors when communicating and interacting with others digitally (e.g., safe information to share, appropriate language use, utilize appropriate sites and materials, respect diverse perspectives).
LA 10.4.2.b	Use appropriate digital tools (e.g., social media, online collaborative tools, apps) to communicate with others for conveying information, gathering opinions, and solving problems.

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WORD CHOICE – Selecting, identifying, and revising specific descriptive language.
SENTENCE FLUENCY – Smooth writing patterns and rhythmic flow of language.
CONVENTIONS – Using appropriate editing and presentation skills.

Criteria For Evaluation And Assessments:

1. Give a practice test on State Writing once each quarter.
2. Use district assessment form to implement six traits writing in the classroom.
3. Put visual aide materials up in the classroom to promote the six traits.
4. Administer appropriate rubrics and assessments.

MULTICULTURAL EDUCATION

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Applied Literary Concepts Curriculum

The goal of this class is to help students become more proficient readers. By completing the various lessons and activities, students will improve vocabulary and reading comprehension. Students will be expected to complete a variety of reading practice assessments, including web-based Actively Learn assignments and the Nebraska Check4Learning assessments. In addition to the units listed, students will read independently on a daily basis to apply the strategies learned in class. Students will then complete reports over the reading for that day.

Unit 1 – The Author and the Reader: Types of Writing and Reading Strategies

Students will identify the different types of writing and discuss how different types are used to accomplish different purposes.
Students will identify and discuss the different purposes of reading.
Students will identify and apply reading strategies for different purposes.

Types of Writing:

- Descriptive
- Narrative
- Expository
- Persuasive

The Author and the Reader: Purpose, Point of View, Tone, and Bias

- Author's Purpose
  - Entertain
  - Inform
  - Persuade
- Reader's Purpose
  - Entertainment
  - Information
  - Critique
- Point of View
  - First Person
  - Second Person
  - Third-Person Limited
  - Third-Person Omniscient
- Author's Tone
- Author Bias
- Propaganda
- Reader Bias

Reading Strategies:

- Predict
- Clarify
- Visualize
- Ask Questions
- Make Personal Connections
- Summarize

Unit 2 – Vocabulary in Context

Students will use context clues to determine the meaning of unfamiliar words to improve reading comprehension.

Context Clues:

- Synonyms
- Antonyms
- Definitions
- General Sense of the Sentence or Passage

Unit 3 – Genres and Subgenres

Students will define, identify, compare, contrast, and analyze various genres and subgenres.
Students will identify and analyze the text structures and elements associated with each genre.

Fiction:

- Realistic Fiction
- Historical Fiction
- Science Fiction

- Fantasy
- Novel
- Novella
- Short Story
- Folklore
    - Fable
    - Fairy Tale
    - Legend
    - Myth
    - Tall Tale

Nonfiction/Informational Text:

- Biography
- Autobiography
- Memoir
- Personal Journal/Diary
- Scholarly Journal/Periodical
- Essay
- Editorial
- Magazine and Newspaper Articles
- Technical Writing

Drama:

- Tragedy
- Comedy
- Melodrama
- Play
- Musical

Poetry:

- Lyric Poetry
- Ballad
- Narrative Poetry
- Limerick
- Sonnet
- Blank Verse
- Free Verse
- Haiku
- Epic Poem

Unit 4 – Main Idea and Details

Students will define, identify, and analyze the stated and implied main idea of various types of nonfiction text.
Students will identify and analyze supporting details as they relate to the main idea.
Students will analyze how details are presented through a variety of text structures.
Students will learn to make inferences based on details of graphics and text.
Students will use details from the text to infer the implied main idea.

Unit 5 – Text Structures

Students will define, identify, compare, contrast, analyze, and evaluate the use of text structures in various genres for different purposes.

Text Structures:

- Chronological
- Sequence / Process
- Order of Importance

Spatial / Descriptive
Compare and Contrast
Cause and Effect
Problem and Solution

Unit 6 – Theme

Students will define, identify, compare, contrast, and analyze various themes as they are communicated in various genres for different purposes.
Students will use details from the text to infer themes.
Students will analyze how setting, mood, plot, and conflict communicate the theme in a text.
Students will examine how author's purpose and author's bias impact theme.

Unit 7 – Literary Techniques

Students will define, identify, compare, contrast, analyze, and evaluate the use of literary devices in various genres.
Students will create their own poetic devices in literary forms.

Figurative Language

Simile
Metaphor
Hyperbole
Understatement
Personification
Idiom

Sound Devices

Onomatopoeia
Alliteration
Assonance
Consonance
Repetition
Rhyme
Rhythm
Imagery

Irony

Dramatic Irony
Situational Irony
Verbal Irony

Symbolism

Unit 8 – The Novel

Students will read a novel of the instructor's choice and apply reading strategies learned throughout the course of the year.
Students will participate in class discussion and complete a variety of assessments over the novel.

Unit 9 – Parts of Speech, Types of Sentences, and Sentence Structure

Students will define, identify, and apply the eight parts of speech.
Students will identify and analyze the use of various types of sentences.
Students will identify, analyze, and apply a variety of effective sentence structures.

Parts of Speech

Noun
Pronoun
Verb
Adjective

- Adverb
- Preposition
- Conjunction
- Interjection

Types of Sentences

- Declarative Sentence
- Interrogative Sentence
- Imperative Sentence
- Exclamatory Sentence
- Conditional Sentence

Parts of a Sentence

- Subject
- Predicate
- Object
- Phrases
- Clauses

Sentence Structures

- Simple Sentence
- Compound Sentence
- Complex Sentence
- Compound-Complex Sentence

TITLE: **GENERAL SCIENCE**
GRADE: **9th**

RESOURCE MATERIALS: Textbook, Six Traits worksheets/activities, Internet, Film/Media,

CRITERIA FOR EVALUATION AND ASSESSMENT: Tests, quizzes, discussions, project grades, writing assignments, multiple rubrics, group and individual activities, lab work and assignments.

STATE STANDARDS:

12.1.1 By the end of twelfth grade, students will develop an understanding of systems, order, and organization.

The Learner Will:

1. Predict and evaluate how change within a system affects that system.
2. Use system analysis to understand how things work and to design solutions to problems.

12.1.2 By the end of twelfth grade, students will develop an understanding of evidence, models, and explanation.

The Learner Will:

1. Create a physical, mental, or mathematical model to show how objects and processes are connected.
2. Test the usefulness of a model by comparing its predictions to actual observations.
3. Understand that the way data are displayed affects interpretation.
4. Evaluate the reasonableness of answers to problems by reviewing the process used to find answers and checking against typical values.
5. Understand that a believable correlation between two variables doesn't mean that either one causes the other.

12.1.3 By the end of twelfth grade, students will develop an understanding of change, constancy, and measurement.

The Learner Will:

1. Use powers of ten to represent large numbers and to compare things that are greatly different.
2. Understand that measurement errors may affect calculations.
3. Use estimates of magnitude of error to analyze disparities between estimates and calculated answers when making measurements.
4. Describe rate of change by comparing one measured quantity to another measured quantity.
5. Investigate and describe how different characteristics, properties, or relationships within a system change as their dimensions increase or decrease.
6. Investigate and understand that as the number of parts within a system change, the number of possible internal interactions varies with the square of the number of parts.

12.1.4 By the end of twelfth grade, students will develop an understanding of form and function.

The Learner Will:

1. Demonstrate the reciprocal aspect of form and function, explaining function by referring to form and explaining form by referring to function.

12.1.5 By the end of twelfth grade, students will develop an understanding of change over a period of time.

The Learner Will:

1. Identify the series of changes that occur in objects, organisms, and natural and human designed systems.
2. Explain equilibrium in terms of changes in opposite and off-setting directions.

12.3.1 By the end of twelfth grade, students will develop an understanding of the structure of the atom.

The Learner Will:

1. Investigate and describe the components and properties of atoms.
2. Investigate and explain the decay of radioactive isotopes.
3. Investigate and describe the effect of electrical and nuclear forces which hold atoms together.

12.3.2 By the end of twelfth grade, students will develop an understanding of the structure and properties of matter.

The Learner Will:

1. Investigate and understand that an element is composed of a single type of atom.
2. Investigate and explain the periodic table of elements in terms of repeating patterns.
3. Investigate and describe how the structure of an atom determines the chemical properties of an element.
4. Investigate and explain how the interactions among the molecules of a compound determine physical and chemical properties.
5. Use differences in molecular energy to explain the differences among the states of matter.
6. Investigate and describe how carbon atoms bond together in chains, rings, and other structures to produce large molecules essential to life.

12.3.3 By the end of twelfth grade, students will develop an understanding of chemical reactions.

The Learner Will:

1. Investigate and describe common chemical reactions.
2. Investigate and explain how chemical reactions release or absorb energy.
3. Investigate and discuss chemical reactions in terms of bond formation by electron transfers.
4. Investigate and describe the factors influencing the rates of chemical reactions.
5. Investigate and describe how the use of catalysts accelerates chemical reactions.

12.3.4 By the end of twelfth grade, students will develop an understanding of motions and forces.

The Learner Will:

1. Calculate the effect of forces on the motion of objects.
2. Investigate and understand gravity as a universal force that each mass exerts on any other mass.
3. Investigate and understand electrical force as a universal force that exists between any two charged objects.
4. Describe an electric field and a magnetic field, and compare the interaction between them.

12.3.5 By the end of twelfth grade, students will develop an understanding of the conservation of energy and increase in disorder.

The Learner Will:

1. Investigate and understand that the total energy in the universe is constant and can never be destroyed.
2. Investigate and distinguish among kinetic energy, potential energy, and energy contained in a field.
3. Investigate and describe heat in terms of conduction, convection, and radiation.
4. Investigate and demonstrate how systems tend to become less organized and more disorderly over time.

12.3.6 By the end of twelfth grade, students will develop an understanding of the interactions of energy and matter.

The Learner Will:

1. Investigate and understand all waves have energy and transfer energy.
2. Investigate and demonstrate how electromagnetic waves result when a charged object accelerates.
3. Investigate and illustrate how wavelength and frequency of waves are inversely related.

12.5.2 By the end of twelfth grade, students will develop an understanding of geochemical cycles.

The Learner Will:

1. Investigate and diagram how elements and compounds on earth move among reservoirs in the solid earth, oceans, atmosphere, and organisms as part of geochemical cycles.

12.5.3 By the end of twelfth grade, students will develop a scientific understanding of the origin of the earth system.

The Learner Will:

1. Contrast the early earth with the planet we live on today.
2. Investigate and estimate geologic time by observing rock sequences and using fossils to correlate the sequences at various locations.
3. Predict when rocks were formed by using known decay rates of radioactive isotopes in rocks.
4. Investigate and relate how the interactions among the solid earth, oceans, atmosphere, and organisms affect the ongoing evolution of the earth.

12.5.4 By the end of twelfth grade, students will develop a scientific understanding of the origin of the universe.

The Learner Will:

1. Describe and analyze various theories on the origin of the universe.
2. Describe various theories on the formation of galaxies.
3. Describe the life cycle of a star.

12.6.1 By the end of twelfth grade, students will develop an understanding of technological design.

The Learner Will:

1. Identify a problem.
2. Propose designs and choose between alternative solutions.
3. Implement a proposed solution.
4. Evaluate the solution and its consequences.
5. Communicate the problem, process, and solution.

12.6.2 By the end of twelfth grade, students will develop an understanding about science and technology.

The Learner Will:

1. State an example of how science advanced with the introduction of new technology.
2. Understand creativity, imagination, and good knowledge bases are all needed to advance the work of science and engineering.
3. Contrast the reasons for the pursuit of science and the pursuit of technology.
4. Contrast the reporting of scientific knowledge and the reporting of technical knowledge.

12.7.6 By the end of twelfth grade, students will develop an understanding of the role of science and technology in local, national, and global challenges.

The Learner Will:

1. Understand that knowledge of basic concepts about scientific and technological challenges should precede active debate.
2. Investigate and understand that social issues and challenges may affect advancements in science and technology.
3. Understand that science and technology are essential social enterprises that indicate what could happen, but not what should happen.

12.8.1 By the end of twelfth grade, students will develop an understanding of science as a human endeavor.

The Learner Will:

1. Practice the ethical traditions of scientists, such as peer review, truthful reporting, and public disclosure of work.
2. Examine and understand the societal, cultural, and personal beliefs that influence scientists.

12.8.2 By the end of twelfth grade, students will develop an understanding of the nature of scientific knowledge.

The Learner Will:

1. Demonstrate the use of empirical standards, logical arguments, and skepticism in science.
2. Create scientific explanations consistent with experimental and observational evidence; make accurate predictions; strive to be logical; respect the rules of evidence; accept criticism; report methods and procedures; and, make knowledge public.
3. Understand that all scientific knowledge is, in principle, subject to change as new evidence becomes available.

12.8.3 By the end of twelfth grade, students will develop an understanding of the history of science.

The Learner Will:

1. Investigate and describe the contributions to scientific knowledge and technological inventions by diverse cultures.

SIX TRAIT CURRICULM

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IDEAS – The writer's primary message, point of story, showing details and clarity.
ORGANIZATION – Putting information into an order that shows direction and purpose.
VOICE – Includes the expression of a writer's personality; an awareness of the intended audience; and a skillful blend of detail, enthusiasm, and knowledge of the topic.
WORD CHOICE – Selecting, identifying, and revising specific descriptive language.
SENTENCE FLUENCY – Smooth writing patterns and rhythmic flow of language.
CONVENTIONS – Using appropriate editing and presentation skills.

Criteria For Evaluation And Assessment:

1. Use district assessment form to implement six traits writing in the classroom.
2. Put visual aide materials up in the classroom to promote the six traits.
3. Administer appropriate rubrics and assessments.

MULTICULTURAL EDUCATION

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Criteria For Evaluation And Assessment:

1. A district assessment from is used to document multicultural education in the classroom
2. An annual status report is provided to the local board of education.

INTRODUCTION TO MATTER UNIT

- The Properties of Matter
  - Mass and weight
  - Physical and Chemical properties
  - Physical and Chemical properties
  - Density
- States of Matter
  - Boyle's and Charles Law
  - Changes of state
- Elements, Compounds, and Mixtures
  - Metals, nonmetals and metalloids
  - Properties of mixtures, solutions, suspensions and colloids
- Introduction to Atoms
  - Atomic Theory
  - Atomic model and structure
  - Isotopes
  - Atomic mass and mass number
- The Periodic Table
  - Structure of the periodic table
  - Periodic Law

INTERACTIONS OF MATTER UNIT

- Chemical Bonding
  - Types of chemical bonding
  - Valence electrons
  - Ions versus molecules

- Crystal lattice
- Chemical Reactions
  - Writing chemical formulas and equations
  - Law of conservation of mass
  - Types of reactions
  - Endothermic vs exothermic
  - Law of conservation of energy
  - Activation energy
- Chemical Compounds
  - Ionic versus covalent compounds
  - Acids, bases and salts
  - PH
  - Organic compounds
  - Biomolecules
- Atomic Energy
  - Properties of radioactive substances
  - Types of decay
  - Half- life
  - Fission, fusion and chain reactions

FORCES, MOTION AND ENERGY UNIT

- Matter in Motion
  - Speed, Velocity and acceleration
  - Measuring force
  - Friction
  - Mass versus weight
- Forces in Motion
  - Terminal velocity and free fall
  - Projectile motion
  - Inertia
  - Momentum
- Forces in Fluids
  - Properties of fluids
  - Atmospheric pressure
  - Density
  - Pascal's force
  - Buoyant force
  - Archimedes' and Bernoulli's principle
- Work and Machines
  - Measuring work and power
  - Types of machines
  - Mechanical advantage and efficiency
- Energy and Energy Resource
  - Forms of energy
  - Energy conservations
  - Law of conservation of energy
  - Energy resources
- Heat and Heat Technology
  - Heat vs. Temperature
  - Thermal expansion
  - Absolute zero
  - Conduction, convection radiation

- Conductors versus insulation
- Specific heat capacity
- Changes of state
- Heat engines
- Thermal pollution

ELECTRICITY AND MAGNETISM UNIT

- Introduction to Electricity
  - Law of electric charges
  - Conduction versus induction
  - Static electricity
  - Potential difference
  - Cells, batteries, and photocells
  - Thermcouples
  - Voltage, current and resistance
  - Electric Power
  - Types of circuits
- Electromagnetism
  - Properties of magnets
  - Magnetic forces
  - Electromagnetism
  - Solenoids and electronic motors
  - Electromagnetic induction
  - Generators and transformers
- Electronic Technology
  - Properties of semiconductors
  - Integrated circuits
  - Diodes and transistors
  - Analog versus digital signals
  - Microprocessors
  - Features of computers

SOUND AND LIGHT UNIT

- The Energy of Waves
  - Properties of Waves
  - Types of waves
  - Reflection and refraction
  - Diffraction and interference
  - Standing waves and resonance
- The Nature of Sound
  - Properties of sound waves
  - Structure of the human ear
  - Pitch and the Doppler effect
  - Infrasonic versus ultrasonic sound
  - Sound reflection and echolocation
  - Sound barrier
  - Interference, resonance, diffraction and standing waves
  - Sound quality of instruments
- The Nature of Light
  - Electromagnetic waves and spectrum
  - Laws of reflection
  - Absorption and scattering

- Reflection and refraction
- Diffraction and interference

Light and Our World

- Luminosity
- Types of lighting, mirrors and lenses
- Focal point
- Structure of the human eye
- Lasers and holograms

TITLE: BOTANY
GRADE LEVEL: 9TH – 12TH

Resource Material: Powerpoint Presentations, Inquiry based labs, Internet, Magazines, Textbooks, Video, Outdoor Learning

Criteria for For Evaluation and Assessments: Tests, Quizzes, Worksheets, Six Trait Writing Assessments, Lab Activities, Discussions, Semester Project/Exam.

State Standards:

12.2.1 By the end of twelfth grade, students will develop the abilities needed to do scientific inquiry.

The Learner Will:

- Formulate questions and identify concepts that guide scientific investigations.
- Design and conduct scientific investigations.
- Use technology and mathematics to improve investigations and communications.
- Formulate and revise scientific explanations and models using logic and evidence.
- Recognize and analyze alternative explanations and models.
- Communicate and defend a scientific argument.

12.4.1 By the end of twelfth grade, students will develop an understanding of the cell.

The Learner Will

- Investigate and describe the form and function of subcellular structures that regulate cell activities.
- Investigate and describe cell functions (e.g., photosynthesis, respiration, cell division).
- Investigate and understand that complex multicellular organisms are formed as highly organized arrangements of differentiated cells.

12.6.1 By the end of twelfth grade, students will develop an understanding of technological design.

The Learner Will:

- Propose designs and choose between alternative solutions of a problem.
- Implement the selected solution.
- Evaluate the solution and its consequences.
- Communicate the problem, process, and solution.

12.6.2 By the end of twelfth grade, students will develop an understanding about science and technology.

The Learner Will:

- Explain how science advances with the introduction of new technology.

• Understand creativity, imagination, and a good knowledge base are all needed to advance the work of science and engineering.
• Contrast the reasons for the pursuit of science and the pursuit of technology.
• Contrast the reporting of scientific knowledge and the reporting of technical knowledge.

12.7.2 By the end of twelfth grade, students will develop an understanding of the effects of population change.

The Learner Will:
• Investigate and identify causes of population growth or decline.
• Investigate and predict how population change may impact resource use and environments.

12.7.3 By the end of twelfth grade, students will develop an understanding of natural resources.

The Learner Will:
• Investigate and explain how human populations use environmental resources to maintain and improve their existence.
• Investigate and understand that the earth has renewable and finite resources.
• Investigate and understand the limitations of natural systems to renew and recycle resources.

12.8.3 By the end of twelfth grade, students will develop an understanding of the history of science.

The Learner Will:
• Investigate and describe the contributions of diverse cultures to scientific knowledge and technological inventions.
• Understand that changes in scientific knowledge evolve over time and almost always build on earlier knowledge.
• Understand that some advancements in science and technology have long lasting effects on society.

Six Trait Curriculum:

The Johnson County Central Public School District endorses and implements the Six Traits Model of Writing instruction and assessment. It is an ongoing expectation that all faculty members will implement this mode of language instruction in their classroom.

IDEAS- The writer's primary message, point of story, showing details and clarity.
ORGANIZATION- Putting information into an order that shows direction and purpose.
VOICE- Includes the Expression of a writer's personality; an awareness of the intended audience; and a skillful blend of detail, enthusiasm, and knowledge of the topic.
WORD CHOICE- Selecting, Identifying, and revising specific descriptive language
SENTENCE FLUENCY- Smooth writing patterns and rhythmic flow of language
CONVENTION- Using appropriate editing and presentation skills.

Criteria for evaluation and assessments:

1. Essay Questions on tests follow this model.
2. Use district assessment form to implement six traits writing in the classroom.
3. Administer appropriate rubrics and assessments.

MULTICULTURAL EDUCATION

The instructional program at Johnson County Central Public Schools incorporates multicultural education in all curriculum areas at all grades. Multicultural education includes, but is not limited to, studies relative to the culture, history, and contributions of African Americans, Hispanic Americans, Native Americans, Asian Americans and European Americans with special emphasis on human relations and sensitivity toward all races.

Criteria For Evaluation And Assessment:

1. A district assessment form is used to document multicultural education in the classroom
2. An annual status report is provided to the local board of education.

CLASS OBJECTIVE

Students will explore practices and principles of Botany with an emphasis in ornamental horticulture, and plant science. Students will learn about plant science, greenhouse crops, floriculture, turf grass management and landscape maintenance. Students will apply their knowledge to a variety of hands-on projects throughout the year. A heavy emphasis will be on plant identification and care for a variety of plants used in all phases of the class. FFA will be an integral part of this instructional program and membership is encouraged but not required.

GENERAL COURSE OUTLINE

Introduction to Botany
Plant Anatomy and Physiology
Plant Propagation
Growing Media, Nutrients, and Fertilizers
Integrated Pest Management
Diseases
Crop Production
Landscaping
Floriculture

TITLE: APPLIED BIOLOGY
GRADE: 10TH

Applied Biology will cover the same topics and meet the same standards as Biology I but will spend more time on the overview of biology and focus on the applications of biology. The pace of the class will be somewhat slower may omit some of the mathematical equations and a few of the labs. It is recommended for students who score less than 200 on MAPS science or math.

Refer to Biology I for full details.

RESOURCE MATERIALS: Lab handouts, Text Books, Workbook, CD ROM, Internet, Films, Magazines.

CRITERIA FOR EVALUATION AND ASSESSMENTS: Tests, Quizzes, Worksheets, Six Traits Writing assignments, Lab activities, discussions, Semester Projects /exams.

STATE STANDARDS:

12.2.1 By the end of twelfth grade, students will develop the abilities needed to do scientific inquiry.

The Learner Will:

1. Formulate questions and identify concepts that guide scientific investigations.
2. Design and conduct scientific investigations.
3. Use technology and mathematics to improve investigations and communications.
4. Formulate and revise scientific explanations and models using logic and evidence.
5. Recognize and analyze alternative explanations and models.
6. Communicate and defend a scientific argument.

12.4.1 By the end of twelfth grade, students will develop an understanding of the cell.

The Learner Will:

1. Investigate and describe the form and function of subcellular structures that regulate cell activities.
2. Investigate and describe cell functions (e.g., photosynthesis, respiration, cell division).
3. Investigate and understand that complex multicellular organisms are formed as highly organized arrangements of differentiated cells.

12.4.2 By the end of twelfth grade, students will develop an understanding of the molecular basis of heredity.

The Learner Will:

1. Investigate and describe how DNA carries the genetic code.
2. Investigate and understand that genetic variation occurs when genetic information is transmitted during sexual reproduction.
3. Investigate and explain how some mutations could help, harm or have no effect of individual organisms.
4. Investigate and explain how mutations in sex cells, but not in body cells, could be passed on to offspring.

12.4.3 By the end of twelfth grade, students will develop an understanding of the theory of biological evolution.

The Learner Will:

1. Understand that the concept of biological evolution is a theory which explains the consequence of the interactions of: (1) the potential for a species to increase its numbers; (2) the genetic variability of offspring due to mutation and recombination of genes; (3) a finite supply of the resources of life; (4) the ensuing selection by the environment of those offspring better able to survive and leave offspring.
2. Investigate and use the theory of biological evolution to explain diversity of life.
3. Investigate whether natural selection provides a scientific explanation of the fossil record and the molecular similarities among the diverse species of living organisms.
4. Investigate and use biological classifications based on similarities.

12.4.4 By the end of twelfth grade, students will develop an understanding of the interdependence of organisms.

The Learner Will:

1. Investigate and understand that atoms and molecules cycle among living and nonliving components of the biosphere.
2. Investigate and describe the flow of energy through ecosystems, in one direction, from producers to herbivores to carnivores and decomposers.
3. Investigate and cite examples of organisms cooperating and competing in ecosystems.
4. Investigate and understand that interactions among organisms are affected by the conflict between an organism's capacity to produce infinite populations and the finite amount of resources.
5. Investigate and describe how humans modify the ecosystem as a result of population growth, technology, and consumption.

12.4.5 By the end of twelfth grade, students will develop an understanding of matter, energy, and organization in living systems.

The Learner Will:

1. Investigate and understand that living systems require a constant input of energy to maintain their chemical and physical organization.
2. Investigate and understand that producers use solar energy to combine molecules of carbon dioxide and water into organic compounds.
3. Investigate and explain how distribution and abundance of different organisms in ecosystems are limited by the availability of matter and energy and the ability of the ecosystem to recycle materials.

12.4.6 By the end of twelfth grade, students will develop an understanding of the behavior of organisms.

The Learner Will:

1. Investigate and describe how nervous systems function in multicellular animals.
2. Investigate and describe how organisms respond to internal changes and external stimuli.

3. Investigate and explain how the behavioral patterns of organisms have evolved through natural selection.
4. Investigate and understand that behavioral biology relates to humans since it provides links to psychology, sociology, and anthropology.

SIX TRAIT CURRICULM

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Criteria for evaluation and assessments:

1. Essay questions on tests follow this model.
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BIOLOGICAL PRINCIPALS UNIT

Characteristics of Life
Themes of Biology
Requirements of Life
Composition of Matter
Energy
Carbon Compounds and Molecules of Life
SI Units and Microscopy

CELLS UNIT

Cell structure function and organization
Movement of materials
Photosynthesis

- Respiration
- Cell Division

GENETICS AND HEREDITY UNIT

- Mendelian Genetics and Crosses
- DNA Replication
- Protein Synthesis
- Inheritance and Genetic Disorders

EVOLUTION UNIT

- Origin of Life on Earth
- Darwin and Theory of Evolution
- Speciation and Equilibrium
- Hypothesis of Human Evolution
- Classification

ECOLOGY UNIT

- Population and Community relationships
- Energy Transfer
- Types of Ecosystems

Humans and Environment

TITLE: **BIOLOGY I**
GRADE: **10TH**

RESOURCE MATERIALS: Lab handouts, Text Books, Workbook, CD ROM, Internet, Films, Magazines.

CRITERIA FOR EVALUATION AND ASSESSMENTS: Tests, Quizzes, Worksheets, Six Traits Writing assignments, Lab activities, discussions, Semester Projects /exams.

STATE STANDARDS:

12.2.1 By the end of twelfth grade, students will develop the abilities needed to do scientific inquiry.

The Learner Will:

1. Formulate questions and identify concepts that guide scientific investigations.
2. Design and conduct scientific investigations.
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1. Understand that the concept of biological evolution is a theory which explains the consequence of the interactions of: (1) the potential for a species to increase its numbers; (2) the genetic variability of offspring due to mutation and recombination of genes; (3) a finite supply of the resources of life; (4) the ensuing selection by the environment of those

offspring better able to survive and leave offspring.

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SENTENCE FLUENCY – Smooth writing patterns and rhythmic flow of language.
CONVENTIONS – Using appropriate editing and presentation skills.

Criteria for evaluation and assessments:

1. Essay questions on tests follow this model.
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Themes of Biology
Requirements of Life
Composition of Matter
Energy
Carbon Compounds and Molecules of Life
SI Units and Microscopy

CELLS UNIT

Cell structure function and organization
Movement of materials
Photosynthesis
Respiration
Cell Division

GENETICS AND HEREDITY UNIT

Mendelian Genetics and Crosses
DNA Replication
Protein Synthesis
Inheritance and Genetic Disorders
DNA Technology

EVOLUTION UNIT

- Origin of Life on Earth
- Darwin and Theory of Evolution
- Speciation and Equilibrium
- Hypothesis of Human Evolution
- Classification

ECOLOGY UNIT

- Population and Community relationships
- Energy Transfer
- Types of Ecosystems
- Humans and Environment

TITLE: BIOLOGY II
GRADE: 11-12TH

RESOURCE MATERIALS: Text, Lab Manuals, CD-ROM, Skeletons, X-rays, Films, worksheets, Latin handouts

CRITERIA FOR EVALUATION AND ASSESSMENT: Tests, quizzes, discussions, labs, group activities, research projects

COURSE DESCRIPTION AND OBJECTIVES: This is a two-term course for college-bound students, especially those interested in science and health related fields. Students may take the course for dual credit through Peru State College as Zoology 102. Students will study evolution, adaptation, niche and population variation, speciation, taxonomy and phylogenetic classification and zoological nomenclature. They will study the 12 major phyla of extant animals/protistans in depth as well as the major subgroups in each phylum. Students will be expected to understand the major evolutionary events that created the diversity of animal life. They should be able to define the ecologically important structures and functions of each animal group and be able to compare and contrast complex life cycles. They will also be able to integrate the laboratory exercises and information with the lecture material.

SIX TRAIT CURRICULUM:
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IDEAS
ORGANIZATION
VOICE
WORKD CHOICE
SENTENCE FLUENCY
CONVENTIONS
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Criteria for evaluation and assessments:
1. A district assessment form is used to document multicultural education in the classroom.

An annual status report is provided to the local board of education

State Standards:
12.2.1 By the end of twelfth grade, students will develop the abilities needed to do scientific inquiry.
The Learner Will:

- Formulate questions and identify concepts that guide scientific investigations.
- Design and conduct scientific investigations.
- Use technology and mathematics to improve investigations and communications.
- Formulate and revise scientific explanations and models using logic and evidence.
- Recognize and analyze alternative explanations and models.
- Communicate and defend a scientific argument.

12.4.1 By the end of twelfth grade, students will develop an understanding of the cell.

The Learner Will

- Investigate and describe the form and function of subcellular structures that regulate cell activities.
- Investigate and describe cell functions (e.g., photosynthesis, respiration, cell division).
- Investigate and understand that complex multicellular organisms are formed as highly organized arrangements of differentiated cells.

12.6.1 By the end of twelfth grade, students will develop an understanding of technological design.

The Learner Will:

- Propose designs and choose between alternative solutions of a problem.
- Implement the selected solution.
- Evaluate the solution and its consequences.
- Communicate the problem, process, and solution.

12.6.2 By the end of twelfth grade, students will develop an understanding about science and technology.

The Learner Will:

- Explain how science advances with the introduction of new technology.
- Understand creativity, imagination, and a good knowledge base is all needed to advance the work of science and engineering.
- Contrast the reasons for the pursuit of science and the pursuit of technology.
- Contrast the reporting of scientific knowledge and the reporting of technical knowledge.

12.7.2 By the end of twelfth grade, students will develop an understanding of the effects of population change.

The Learner Will:

- Investigate and identify causes of population growth or decline.
- Investigate and predict how population change may impact resource use and environments.
- Investigate and understand the limitations of natural systems to renew and recycle resources.

12.8.1 By the end of twelfth grade, students will develop an understanding of science as a human endeavor.

The Learner Will:

- Demonstrate ethical scientific practices (e.g., informing research subjects about risks and benefits, humane treatment of animals, truthful reporting, public disclosure of work, and peer review).
- Examine and understand the societal, cultural, and personal beliefs that influence scientists.
- Recognize science as one way of answering questions and explaining the natural world.

12.8.3 By the end of twelfth grade, students will develop an understanding of the history of science.

The Learner Will:

• Investigate and describe the contributions of diverse cultures to scientific knowledge and technological inventions.
• Understand that changes in scientific knowledge evolve over time and almost always build on earlier knowledge.
• Understand that some advancements in science and technology have longlasting effects on society.

MAJOR UNITS FOR BIOLOGY II / PSC BIO102 :

- **Evolution**
- **Adaptation**
- **Genetics**
- **Niche and Population Variation**
- **Speciation and Species Isolation**
- **Taxonomy and Phylogentic classification**
- **Zoological Nomenclature**
- **Protista**
- **Porifera**
- **Cnideria**
- **Platyhelminths**
- **Nemetoda**
- **Annelida**
- **Molluska**
- **Arthropoda**
- **Echinodermata**
- **Chordata**

OBJECTIVES:

The student will…

- Learn the zoological nomenclature
- Learn the hypothesis of evolutionary relationships among organisms
- Understand how systems are interrelated
- Understand niche and population variation, microevolution and speciation
- Learn the 12 major phyla and subgroups and representative examples of each
- Define the important structures of each group, their functions and evolution
- Compare and contrast complex life cycles
- Integrate laboratory and lecture material

TITLE: APPLIED CHEMISTRY
GRADE: 11- 12
PREREQUISITES: Algebra or Applied Math I & II, Instructor Permission

RESOURCE MATERIALS: Text, Lab Handouts, CD-ROM, Worksheets, Chemical Demonstrations.
COURSE DESCRIPTION & OBJECTIVES: This class covers the same material and has the same objectives as the regular chemistry class. Applied chemistry is for those students who either do not have the background in math (are not currently taking or have taken Algebra II) required for regular chemistry, are not reading at grade level, or otherwise need a class that goes at a slightly slower pace with more individualized help from the instructor. Students wishing to take this class will need permission of the instructor and guidance counsellor.

CRITERIA FOR EVALUATION AND ASSESSMENT: Tests, quizzes, discussions, labs, group activities, research projects.
SIX TRAIT CURRICULM
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WORD CHOICE – Selecting, identifying, and revising specific descriptive language.
SENTENCE FLUENCY – Smooth writing patterns and rhythmic flow of language.
CONVENTIONS – Using appropriate editing and presentation skills.
Criteria for evaluation and assessments:
1. Essay questions on tests follow this model.
2. Use district assessment form to implement six traits writing in the classroom.
3. Students write a fictional story on new genetics using six traits.
4. Put visual aide material up in classroom to promote the six traits.
5. Administer appropriate rubrics and assessments.

MULTICULTURAL EDUCATION
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Criteria For Evaluation And Assessment:
1. A district assessment from is used to document multicultural education in the classroom
2. An annual status report is provided to the local board of education.

NTRODUCTION UNIT
Definition of Chemistry
Branches of chemistry
Types of energy
Classification of matter
Metrics and units of measurement
Heat and Temperature
Solving Problems

ATOM UNIT
Atomic Theory
Atomic Structure
Sub atomic particles
Location and discovery of these particles
Avogadro's number
Weighing and counting atoms
Quantum Numbers and electron configurations

PERIODICITY UNIT
Development of the Periodic Table
Characteristics of Groups and Periods
Group Trends
Period Trends
Electron Configurations and Blocks
Metals Metalloids and Non-Metals

BONDING UNIT
Types of Bonds
Bond Character
Electronegativity difference
Characteristics of Ionic and Covalent Bonds
Metallic Bonding and characteristics
Molecular Geometry
VSEPR theory
Atomic forces involved with bonding

FORMULAS AND REACTIONS UNIT
Writing Chemical Formulas
Crossing over
Prefixes
Naming Chemical Compounds
Using Chemical Formulas
Determining mass
Determining moles
Determining atoms
Calculating simplest formula
Calculating molecular formula
Writing equations
Balancing equations
Classifying equations and reaction prediction
Activity series and replacement reactions

STOICHIOMETRY UNIT
Finding Mole Ratios
Determine Amount of Reactants used and Products produced
Finding Limiting and Excess Reactant
Percent Yield

REPRESENTATIVE GASES AND GAS LAW UNIT

Oxygen
Characteristics
Uses
Types
Hydrogen
Characteristics
Uses
Types
Nitrogen and Ammonia
Characteristics
Uses
Types
Carbon Dioxide and Carbon Monoxide
Characteristics
Uses
Types
Kinetic Theory of Matter
Effects of Pressure, Temperature on Matter
Gases and Characteristics
Gas Laws
Stoichiometry of Gases
Effusion and Diffusion

LIQUIDS SOLIDS AND SOLUTIONS UNIT

Comparative properties of States of Matter
Energy Volume and Movement
Changes of State
Equilibrium
Special Characteristics of Water
Mixtures and Solutions
Concentration of Solute and Solvent
Colligative properties

TITLE: **CHEMISTRY I**
GRADE: **10th and 12TH**

RESOURCE MATERIALS: Text, Lab Handouts, CD-ROM, Worksheets, Chemical Demonstrations.

CRITERIA FOR EVALUATION AND ASSESSMENT: Tests, quizzes, discussions, labs, group activities, research projects.

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CONVENTIONS – Using appropriate editing and presentation skills.

Criteria for evaluation and assessments:

1. Essay questions on tests follow this model.
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INTRODUCTION UNIT

Definition of Chemistry
- Branches of chemistry
- Types of energy
- Classification of matter

Metrics and units of measurement
Heat and Temperature
Solving Problems, Railroad Tracks

ATOM UNIT

- Atomic Theory
- Atomic Structure
  - Sub atomic particles
  - Location and discovery of these particles
- Avogadro's number
- Weighing and counting atoms
- Quantum Numbers and electron configurations

PERIODICITY UNIT

- Development of the Periodic Table
- Characteristics of Groups and Periods
  - Group Trends
  - Period Trends
- Electron Configurations and Blocks
- Metals Metalloids and Non-Metals

BONDING UNIT

- Types of Bonds
  - Bond Character
  - Electronegativity difference
- Characteristics of Ionic and Covalent Bonds
- Metallic Bonding and characteristics
- Molecular Geometry
  - VSEPR theory
  - Atomic forces involved with bonding

FORMULAS AND REACTIONS UNIT

- Writing Chemical Formulas
  - Crossing over
  - Prefixes
- Naming Chemical Compounds
- Using Chemical Formulas
  - Determining mass
  - Determining moles
  - Determining atoms
- Calculating simplest formula
- Calculating molecular formula
- Writing equations
- Balancing equations
- Classifying equations and reaction prediction
- Activity series and replacement reactions

STOICHIOMETRY UNIT

- Finding Mole Ratios
- Determine Amount of Reactants used and Products produced
- Finding Limiting and Excess Reactant
- Percent Yield

REPRESENTATIVE GASES AND GAS LAW UNIT

- Oxygen
  - Characteristics
  - Uses
  - Types
- Hydrogen
  - Characteristics
  - Uses
  - Types
- Nitrogen and Ammonia
  - Characteristics
  - Uses
  - Types
- Carbon Dioxide and Carbon Monoxide
  - Characteristics
  - Uses
  - Types
- Kinetic Theory of Matter
- Effects of Pressure, Temperature on Matter
- Gases and Characteristics
- Gas Laws
- Stoichiometry of Gases
- Effusion and Diffusion

LIQUIDS SOLIDS AND SOLUTIONS UNIT

- Comparative properties of States of Matter
  - Energy Volume and Movement
- Changes of State
  - Equilibrium
- Special Characteristics of Water
- Mixtures and Solutions
  - Concentration of Solute and Solvent
  - Colligative properties

TITLE: CHEM II
GRADE: 11- 12
PREREQUISITES: Algebra or Applied Math I & II, Instructor Permission

RESOURCE MATERIALS: Text, Lab Handouts, CD-ROM, Worksheets, Chemical Demonstrations.

COURSE DESCRIPTION AND OBJECTIVES: This is a two-term course for college-bound students, especially those interested in science and health related fields. This course is an introduction to the fundamentals of chemistry, with an emphasis on inorganic chemistry. Topics such as atomic theory, chemical bonding, stoichiometry, solutions, and pH are covered in Chem 101. Chem 102 covers applications of the fundamentals of chemistry, including states of matter, oxidation-reduction, thermochemistry, chemical equilibrium, kinetics, nuclear chemistry, and descriptive chemistry. Lecture and laboratory are included in the course.

CRITERIA FOR EVALUATION AND ASSESSMENT: Tests, quizzes, discussions, labs, group activities, research projects.

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MAJOR UNITS 101 (First Semester):

- **Lab Safety**
- **Sig figs and Scientific Notation**
- **Measurements and Problem Solving**
- **States and Properties of Matter**
- **Physical and Chemical Changes**
- **Temperature and Heat Capacity**
- **Atomic Theory**
- **Ions & Isotopes**
- **Electron Configuration, Atomic Size**
- **Molecules and Compounds**
- **Chemical Bonding**
- **Chemical Formulas & Nomenclature**
- **Stoichiometry**
- **Chemical Composition and Moles**
- **Chemical Reactions and Balancing Equations**
- **Solutions & Solubility**
- **Precipitation Reactions**
- **pH & Acid/Base Reactions**

MAJOR UNITS 102 (Second Semester):

- **Electronegativity and Polarity**
- **Gas Laws**
- **States of Matter and Intermolecular forces**
- **Chemical Equilibrium**
- **Oxidation/Reduction Reactions**
- **Radioactivity and Nuclear Chemistry**
- **Organic Chemistry**
- **Biochemistry**

TITLE: PHYSIOLOGY
GRADE: 11TH and 12TH

RESOURCE MATERIALS: Text, Lab Manuals, CD-ROM, Skeletons, X-rays, Films, worksheets, Latin handouts

CRITERIA FOR EVALUATION AND ASSESSMENT: Tests, quizzes, discussions, labs, group activities, research projects.

COURSE DESCRIPTION AND OBJECTIVES: This is a two-term course for college-bound students, especially those interested in science and health related fields. Dual credit is offered through Peru State College as Anatomy 210. Students will study the human body systems, disorders and diseases related to each system. Students will do independent and group activities including dissection, to understand the body systems and how they work together. There will be a large amount of new vocabulary as well as abstract concepts and higher level thinking.

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CONVENTIONS – Using appropriate editing and presentation skills.
Criteria for evaluation and assessments:
1. Essay questions on tests follow this model.
2. Use district assessment form to implement six traits writing in the classroom.
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STATE STANDARDS:
12.2.1 By the end of twelfth grade, students will develop the abilities needed to do scientific inquiry.
The Learner Will:
1. Formulate questions and identify concepts that guide scientific investigations.
2. Design and conduct scientific investigations.
3. Use technology and mathematics to improve investigations and

communications.

4. Formulate and revise scientific explanations and models using logic and evidence.

5. Recognize and analyze alternative explanations and models.

6. Communicate and defend a scientific argument.

12.4.1 By the end of twelfth grade, students will develop an understanding of the cell.

The Learner Will:

1. Investigate and describe the form and function of subcellular structures that regulate cell activities.

2. Investigate and describe cell functions (e.g., photosynthesis, respiration, cell division).

3. Investigate and understand that complex multicellular organisms are formed as highly organized arrangements of differentiated cells.

12.4.2 By the end of twelfth grade, students will develop an understanding of the molecular basis of heredity.

The Learner Will:

1. Investigate and describe how DNA carries the genetic code.

2. Investigate and understand that genetic variation occurs when genetic information is transmitted during sexual reproduction.

3. Investigate and explain how some mutations could help, harm or have no effect of individual organisms.

4. Investigate and explain how mutations in sex cells, but not in body cells, could be passed on to offspring.

12.4.3 By the end of twelfth grade, students will develop an understanding of the theory of biological evolution.

The Learner Will:

1. Understand that the concept of biological evolution is a theory which explains the consequence of the interactions of: (1) the potential for a species to increase its numbers; (2) the genetic variability of offspring due to mutation and recombination of genes; (3) a finite supply of the resources of life; (4) the ensuing selection by the environment of those offspring better able to survive and leave offspring.

2. Investigate and use the theory of biological evolution to explain diversity of life.

3. Investigate whether natural selection provides a scientific explanation of the fossil record and the molecular similarities among the diverse species of living organisms.

4. Investigate and use biological classifications based on similarities.

12.4.4 By the end of twelfth grade, students will develop an understanding of the interdependence of organisms.

The Learner Will:

1. Investigate and understand that atoms and molecules cycle among living and nonliving components of the biosphere.

2. Investigate and describe the flow of energy through ecosystems, in one direction, from producers to herbivores to carnivores and decomposers.

3. Investigate and cite examples of organisms cooperating and competing in ecosystems.

4. Investigate and understand that interactions among organisms are affected by the conflict between an organism’s capacity to produce infinite populations and the finite amount of resources.

5. Investigate and describe how humans modify the ecosystem as a result of

population growth, technology, and consumption.

12.4.5 By the end of twelfth grade, students will develop an understanding of matter, energy, and organization in living systems.

The Learner Will:

1. Investigate and understand that living systems require a constant input of energy to maintain their chemical and physical organization.
2. Investigate and understand that producers use solar energy to combine molecules of carbon dioxide and water into organic compounds.
3. Investigate and explain how distribution and abundance of different organisms in ecosystems are limited by the availability of matter and energy and the ability of the ecosystem to recycle materials.

12.4.6 By the end of twelfth grade, students will develop an understanding of the behavior of organisms.

The Learner Will:

1. Investigate and describe how nervous systems function in multicellular animals.
2. Investigate and describe how organisms respond to internal changes and external stimuli.
3. Investigate and explain how the behavioral patterns of organisms have evolved through natural selection.
4. Investigate and understand that behavioral biology relates to humans since it provides links to psychology, sociology, and anthropology.

ORGANIZATION UNIT:

Review the Cell Structure and Function
Chemical makeup of DNA
Cellular Metabolism
Movement of Materials
Tissues
Types of Tissues
Location of Tissues
Function of Tissues

INTEGUMENT UNIT:

Skin as an organ
Structure and Function
Accessory Organs
Hair, Fingernails
Disorders

SKELETON UNIT:

Bone formation and function
Types of Bone
Name and Location of Bones and Structures

MUSCLE UNIT:

Muscle cell structure
Muscle types
Muscle Contraction
Injuries and Disorders
Location and Name of Muscles
Dissection of Muscles

NERVOUS SYSTEM UNIT:
Function and Structure of nervous cells
Interrelationships of nervous cells
Membrane Potential and Nerve Impulse
Central Nervous System
Lobes of Brain
Cranial Nerves
Spinal Cord
Peripheral Nervous System
Types of Nerves
Autonomic Nervous System

ENDOCRINE SYSTEM UNIT:
Homeostasis and feedback mechanisms
Steroid and Non-steroid hormone mechanisms of action
Pituitary Hormones
Thyroid & Parathyroid Hormones
Hypothalmic Hormones
Adrenal & Sex Hormones

CIRCULITORY SYSTEM UNIT:
Blood
Elements and function
Blood Types
Characteristics and Volume
Types of White Blood Cells and Function
Homeostasis and Blood Clotting
Heart
Structure and Function
Impulse Conduction
Blood Flow
Heart Circulation and Blood Supply
Veins and Arteries
Homeostasis and Blood Pressure
Gas exchange
Paths of Circulation

RESPIRATORY SYSTEM UNIT:
Organs of the Respiratory system
Breathing Mechanisms
Air Volumes and Capacities
Breathing Controls
Gas Exchange and Transportation

DIGESTION SYSTEM UNIT:
Characteristics of Alimentary Canal
Structure and tissues involved
Accessory organs functions and locations
Stomach
Parts
Gastric secretions
Gastric actions

Small Intestine
Sections
Actions
Large Intestine
Secretions
Actions

URINARY SYSTEM UNIT:
Kidneys structure
Nephron structure
Filtration through the tubules
Renal Blood Vessels
Homeostasis and Fluid Regulation

PREGNANCY, GROWTH, AND DEVELOPMENT UNIT:
Reproductive Systems
Fertilization
Prenatal development stages
Hormonal Changes
Fetal Blood and Circulation
Parturation
Postnatal Period

TITLE: ZOOLOGY
GRADE LEVEL: 11TH – 12TH

Resource Material: Powerpoint Presentations, Inquiry based labs, Internet, Magazines, Textbooks, Video, Outdoor Learning

Criteria for For Evaluation and Assessments: Tests, Quizzes, Worksheets, Six Trait Writing Assessments, Lab Activities, Discussions, Semester Project/Exam.

State Standards:

12.2.1 By the end of twelfth grade, students will develop the abilities needed to do scientific inquiry.

The Learner Will:

- Formulate questions and identify concepts that guide scientific investigations.
- Design and conduct scientific investigations.
- Use technology and mathematics to improve investigations and communications.
- Formulate and revise scientific explanations and models using logic and evidence.
- Recognize and analyze alternative explanations and models.
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The Learner Will

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The Learner Will:

- Propose designs and choose between alternative solutions of a problem.
- Implement the selected solution.
- Evaluate the solution and its consequences.
- Communicate the problem, process, and solution.

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The Learner Will:

- Explain how science advances with the introduction of new technology.

• Understand creativity, imagination, and a good knowledge base is all needed to advance the work of science and engineering.
• Contrast the reasons for the pursuit of science and the pursuit of technology.
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The Learner Will:
• Investigate and identify causes of population growth or decline.
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• Investigate and understand the limitations of natural systems to renew and recycle resources.

12.8.1 By the end of twelfth grade, students will develop an understanding of science as a human endeavor.

The Learner Will:
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The Learner Will:
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4. Essay Questions on tests follow this model.
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Criteria For Evaluation And Assessment:

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2. An annual status report is provided to the local board of education.

CLASS OBJECTIVE

In this course, students study the basics of the animal agriculture industry, animal growth and development, animal anatomy and physiology, animal care, nutrition, and genetics. Through individual and group projects, students investigate the animals and animal careers that interest them. This class is a must for anyone considering a career as a veterinarian, a veterinary technician, an animal research scientist, or a career in any other animal related area.

GENERAL COURSE OUTLINE

- Taxonomy
- Arthopoda
- Chordates
- Nutrition/Digestive System
- Reproduction
- Vertabrates
    - Beef Cattle
    - Dairy Cattle
    - Swine
    - Sheep
    - Horses
    - Cats
    - Dogs
    - Poultry
- Diseases
- Food Science
    - MicroOrganisms
    - Safety

TITLE: **PHYSICS**
GRADE: **11TH AND 12TH**

RESOURCE MATERIALS: Text, Lab Handouts, CD-ROM, Worksheets, Demonstrations.

CRITERIA FOR EVALUATION AND ASSESSMENT: Tests, quizzes, discussions, labs, group activities, research projects.

STATE STANDARDS:

12.1.3 By the end of twelfth grade, students will develop an understanding of change, constancy, and measurement.

The Learner Will:

1. Use powers of ten to represent large and small numbers.
2. Compare data for two groups by using averages and ranges of values.
3. Understand that measurement errors may affect results of calculations.
4. Describe rate of change by comparing one measured quantity to another measured quantity.
5. Investigate and describe how different characteristics, properties, or relationships within a system change as their dimensions increase or decrease.

12.2.1 By the end of twelfth grade, students will develop the abilities needed to do scientific inquiry.

The Learner Will:

1. Formulate questions and identify concepts that guide scientific investigations.
2. Design and conduct scientific investigations.
3. Use technology and mathematics to improve investigations and communications.
4. Formulate and revise scientific explanations and models using logic and evidence.
5. Recognize and analyze alternative explanations and models.
6. Communicate and defend a scientific argument.

12.3.2 By the end of twelfth grade, students will develop an understanding of the structure and properties of matter.

The Learner Will:

1. Investigate and understand that atoms interact with one another by transferring or sharing electrons.
2. Investigate and explain the periodic table of elements in terms of repeating patterns of physical and chemical properties.
3. Investigate and describe how the structure of an atom determines the chemical properties of an element.
4. Investigate and explain how the interactions among the molecules of a compound determine its physical and chemical properties.
5. Investigate and use changes in energy to explain the differences among the states of matter.
6. Investigate and describe the bonding of carbon atoms in chains and rings to produce compounds essential to life.

12.3.4 By the end of twelfth grade, students will develop an understanding of motions and forces.

The Learner Will:

1. Investigate and understand the effect of forces on the motion of objects.
2. Investigate and understand gravity as an attractive force that each mass exerts on any other mass.
3. Investigate and understand electrical force as a force that exists between any two charged objects.
4. Investigate and describe an electric field a magnetic field, and the interaction between them.

12.3.5 By the end of twelfth grade, students will develop an understanding of the the conservation of energy and increase in disorder.

The Learner Will:

1. Understand that the total energy in the universe is constant and can never be destroyed.
2. Investigate and distinguish between kinetic energy and potential energy.
3. Investigate and describe heat transfer in terms of conduction, convection, and radiation.
4. Investigate and give examples of how systems tend to become more disorderly over time.

12.3.6 By the end of twelfth grade, students will develop an understanding of the interactions of energy and matter.

The Learner Will:

1. Investigate and understand that all waves possess and transfer energy.
2. Understand that electromagnetic waves result when a charged object accelerates.
3. Investigate and illustrate how wavelength and frequency of waves are inversely related.
4. Investigate and understand that the energy of waves can be changed into other forms of energy, just as other forms of energy can be transformed into wave energy.
5. Investigate and understand that atoms or molecules can be identified by spectral analysis.
6. Investigate and describe how the composition and temperature of a material affects electron flow.

SIX TRAIT CURRICULM

The Johnson County Central Public School District endorses and implements the Six Traits model of writing instruction and assessment. It is an ongoing expectation that all faculty members will implement this mode of language instruction in their classroom.

IDEAS – The writer's primary message, point of story, showing details and clarity.
ORGANIZATION – Putting information into an order that shows direction and purpose.
VOICE – Includes the expression of a writer's personality; an awareness of the intended audience; and a skillful blend of detail, enthusiasm, and knowledge of the topic.
WORD CHOICE – Selecting, identifying, and revising specific descriptive language.
SENTENCE FLUENCY – Smooth writing patterns and rhythmic flow of language.
CONVENTIONS – Using appropriate editing and presentation skills.

Criteria for evaluation and assessments:

1. Essay questions on tests follow this model.
2. Use district assessment form to implement six traits writing in the classroom.
3. Students write a fictional story on new genetics using six traits.
4. Put visual aide material up in classroom to promote the six traits.
5. Administer appropriate rubrics and assessments.

MULTICULTURAL EDUCATION

The instructional program at Johnson County Central Public Schools incorporates multicultural education in all curriculum areas at all grades. Multicultural education includes, but is not limited to, studies relative to the culture, history, and contributions of African Americans, Hispanic Americans, Native Americans, Asian Americans and European Americans with special emphasis on human relations and sensitivity toward all races.

Criteria For Evaluation And Assessment:

1. A district assessment from is used to document multicultural education in the classroom
2. An annual status report is provided to the local board of education.

FUNDAMENTAL MATH AND MEASUREMENTS UNIT

Basic algebra and trig functions
Significant digits and scientific notation
Metric system
Understand basic laws of science

MOTION UNIT

Velocity
Acceleration
Gravity
Knowledge of equations
Differentiate between acceleration and uniform velocity
Identification of correct units, knows and unknowns of a word problem

VECTORS UNIT

Differentiate between vectors and scalars
Solve vectors by adding, graphing, and with trig functions
Difference between displacement and distance
Resultant force
Equilibrium

DYNAMICS AND MOMENTUM UNIT

Newton's Law of Motion
Differentiate between weight and mass
Conservation and impulse of momentum

WORK, POWER, AND ENERGY UNIT

Relate work and power
Know the relationship between kinetic and potential energy
Conservation of energy
Mechanical advantage and machines

THERMAL ENERGY AND KINETIC THEORY UNIT

Relate heat and temperature
Laws of Thermodynamics
Specific heat, heat of fusion, heat of vaporization, coefficient of linear expansion
Conversions of Calorie, calorie, and joule
Cohesive, adhesive forces and surface tension

WAVES UNIT

Types of waves
Wavelength
Frequency
Speed
Period and amplitude
Reflection and refraction

ELECTRICITY UNIT

Charged bodies
Electric current and units
Series and parallel circuits
Circuit development
Ammeters and voltmeters

LIGHT UNIT

Electromagnetic spectrum
Speed of light
Light sources and separation
Color and pigments
Reflection and refraction
Use of mirrors and lenses to distort light images
Polarization of light

TITLE: **GEOGRAPHY**
GRADE: **9^{TH} – 12^{TH}**

RESOURCE MATERIALS: Textbook, handouts and worksheets, Films/media, online documents, maps, globes and atlases.

CRITERIA FOR EVALUATION AND ASSESSMENT: Tests, quizzes, discussions, group activities and project grades.

STATE STANDARDS:

12.4.1 Students will demonstrate geographic skills.

The Learner Will:

1. Recognize the different map projections and explain the effects of distortion.
2. Show how maps reflect particular historical and political perspectives.
3. Apply the concepts of scale, orientation, and latitude and longitude.
4. Create and compare political, physical, and thematic maps of countries and regions.

12.4.2 Students will analyze how selected physical and ecological processes impact the earth's surface.

The Learner Will:

1. Identify natural hazards describe the characteristics, explain their impact on physical and human systems, and assess efforts to manage their consequences in developed and less developed regions.
2. Identify regional climatic patterns and weather phenomena, relating them to events in the contemporary world.
3. Explain how humans influence and are influenced by the environment.
4. Relate how people's ideas and relationship to the environment change over time, particularly in response to new technologies.

12.4.3 Students will compare and contrast the distribution, growth rates, and characteristics of human population, eg., settlement patterns and the location of natural and human resources.

The Learner Will:

1. Analyze past and present migration patterns.
2. Analyze the social, economic, political, and environmental factors that influence cultural interaction.
3. Analyze past and present trends in human migration and cultural interaction as they are influenced by social, economic, political, and environmental factors.

12.4.4 Students will analyze the patterns of urban development, such as site and situation; the function of towns and cities; and problems related to human mobility, social structure, and the environment.

The Learner Will:

1. Analyze urban development patterns throughout the United States by the use of maps.
2. Analyze how towns and cities are developed and how they function
3. Discuss the ideas of site and situation and their relationship to migration.

12.4.5 Students will analyze the regional development of Asia, Africa, the Middle East, Latin America, and the Caribbean, such as physical, economic, and cultural characteristics and historical evolution from 1000 A.D. to the present.

The Learner Will:

1. Analyze the patterns and networks of economic independence, e.g., formation of multinational economic unions; international trade; the theory of competitive advantage; job specialization; competition for resources; and access to labor, technology, transportation, and communications.
2. Locate and identify by name the major countries in each region, the world's major rivers, mountain ranges, and surrounding bodies of water.
3. Classify and describe the spatial distribution of major economic systems and evaluate their relative merits in terms of productivity and the social and economic well being of workers.
4. Explain how regions change over time.
5. Explain how the characteristics of regions have led to regional labels.
6. Explain how regional landscapes reflect the cultural characteristics of their inhabitants as well as historical events.
7. Explain how technological advantages have led to increasing interaction among regions.
8. Distinguish between developed and developing countries, identifying and relating the level of economic development to the quality of life.
9. Analyze how certain cultural characteristics can link or divide regions, e.g., language, ethnic heritage, religion, political philosophy, shared history, and social and economic systems.

12.4.6 Students will analyze the forces of conflict and cooperation.

The Learner Will:

1. Explain the way in which the world is divided among independent and dependent countries.
2. Describe disputes over borders, resources, and settlement areas.
3. Describe the historic and future ability of nations to survive and prosper.
4. Explain the role of multinational organizations.

12.4.7 Students will apply geography to interpret the past, understand the present, and plan for the future.

The Learner Will:

1. Explain the historical migration of people, expansion and disintegration of empires, and the growth of economic systems by using a variety of maps, charts, and documents.
2. Relate current events to the physical and human characteristics of places and regions.

SIX TRAIT CURRICULUM

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IDEAS - The writer's primary message, point of story, showing details and clarity.
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WORD CHOICE - Selecting, identifying, and reviewing specific descriptive language.
SENTENCE FLUENCY - Smooth writing patterns and rhythmic flow of language.
CONVENTIONS - Using appropriate editing and presentation skills.

Criteria For Evaluation And Assessments:

1. Students will do a Country Profile Report.
2. Use district assessment form to implement six trait writing in the classroom.
3. Put visual aide materials up in the classroom to promote the six traits.
4. Administer appropriate rubrics and assessments.

MULTICULTURAL EDUCATION

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Criteria For Evaluation And Assessments:

1. A district assessment form is used to document multicultural education in the classroom.
2. An annual status report is provided to the local board of education.

THEMES OF GEOGRAPHY UNIT:

Explore what the 5 Themes of Geography are.
Apply the 5 Themes to countries around the world.

MAP PROJECTIONS AND MAPS UNIT:

Compare and contrast different types of map projections.
How map projections are made.
Parts of a map
Latitude and Longitude

UNITED STATES UNIT:

Regions of the United States
Cultural, political, historical, and physical geography of the United States.

CANADA UNIT:

Economic system in Canada.
Political system in Canada.
Physical geography of Canada.
Basic historical periods of Canada.
Canadian culture compared to U.S. culture.

CENTRAL AMERICA UNIT:

Physical geography of Central America.
Aztec and Mayan civilizations in Mexico.
Mexico today.
Political systems and periods of Central America.
Cultural geography of Central America.

SOUTH AMERICA UNIT:

Physical geography of South America
Economic and Political geography.
Inca civilization in Peru.
Current events and trends in South America.
Cultural geography of South America.

EUROPE UNIT:

Physical geography of Europe.
Regions of Europe.
Historical events that have affected the geography of Europe.
Political systems in Europe.
Culture of European countries and regions.

ASIA UNIT:

Examine Russia and the former Soviet Union.
Communism in the USSR, China, and North Korea.
Religions of Eastern Asia.
Culture of Asian countries.
Population problems in Asia.

MIDDLE EAST UNIT:

Physical geography of the Middle East.
Historical conflicts in the Middle East.
Current events in the Middle East
Oil in the Middle East.
Religions and cultures of the Middle East.

AFRICA UNIT:

Physical regions of Africa.
Cultural geography of the Africa.
Current events in Africa. (AID's)

AUSTRALIA UNIT:

Physical geography of Australia
Culture in Australia and its relationship to the U.S.
Regions of Australia.

TITLE: **WORLD HISTORY**
GRADE: **9th - 12th**

RESOURCE MATERIALS: Textbook, Six Traits worksheets/activities, Films/media, Information handouts, Textbook worksheets, Internet Resources, Maps, PowerPoint presentations.

CRITERIA FOR EVALUATION AND ASSESSMENT: Examinations, quizzes, discussions, written projects, group and individual activities, criterion and norm referenced assessments, and visual illustration models. Additional emphasis is placed on written expression, content synthesis, and vocabulary.

STATE STANDARDS:

12.2.1 Students will demonstrate an understanding of the state of the world about 1000 C.E.

The Learner Will:

1. Summarize the institution of feudalism in Europe, Asia, and Africa.
2. Summarize the growth of trade between civilizations, e.g., silk trade, gold and salt trade.
3. Describe the location and leadership of major kingdoms in Europe, Africa, Asia, and Latin America
4. Describe the location and culture of the Byzantine and Muslim empires.
5. Summarize the role of religion in a civilization, e.g., the Roman Catholic Church, Buddhism, Islam, and animism.
6. Describe the conflict between religions, e.g., Crusades and the Great Schism.
7. Summarize the technological advances in Asia and Latin America, e.g., calendars and metallurgy.

12.2.2 Students will analyze the patterns of social, economic, political change, and cultural achievement in the late Medieval period.

The Learner Will:

1. Explain the emergence and distinctive political developments of nation-states, e.g., Spain, France, England, and Russia.
2. Describe the conflicts among Eurasian powers, e.g., the Crusades, the Mongol conquests, and the expansion of the Ottoman Turks.
3. Explain the patterns of crisis and recovery, e.g., the Black Death.
4. Explain the preservation of Greek and Roman philosophy, medicine, and science.

12.2.3 Students will analyze the historical developments of the Renaissance.

The Learner Will:

1. Explain the economic foundations of the Renaissance, such as European interaction with Muslims, increased trade, role of the Medici's, and new economic practices.
2. Discuss the rise of Italian city-states.
3. Compare the artistic, literary, and intellectual creativity, e.g., Leonardo DaVinci, Michelangelo, and Shakespeare, as contrasted with the Medieval period.
4. Explain the Machiavell's theory of government as described in *The Prince*.
5. Describe the differences between the Italian and the Northern Renaissance.

12.2.4 Students will analyze the historical developments of the Reformation.

The Learner Will:

1. Explain the influence of religious conflicts on government actions, such as the Edict of Nantes in France.
2. Discuss the evolution of laws that reflect religious beliefs, cultural values, traditions, and philosophies, e.g., the beginnings of religious toleration and the growth of democracy.

12.2.5 Students will analyze the impact of European expansion into the Americas, Africa, and Asia.

The Learner Will:

1. Discuss the roles and motivations of explorers/conquistadors.
2. Explain the migration, settlement patterns, and cultural diffusion.
3. Explain the exchange of technology, ideas, and agricultural practices.
4. Discuss the trade in slaves, tobacco, rum, furs, and gold.
5. Relate the introduction of new diseases.
6. Discuss the influence of Christianity.
7. Explain the economic and cultural transformations created by the emergence of plant-like tobacco and corn in new places and the arrival of the horse in the Americas.
8. Describe the competition for resources and the rise of the Commercial Revolution and mercantilism.
9. Explain the cultural changes in indigenous societies.

12.2.6 Students will compare and contrast Judaism, Christianity, Islam, Buddhism, Hinduism and Confucianism.

The Learner Will:

1. Compare and contrast major leaders and events.
2. Compare and contrast sacred writings.
3. Compare and contrast traditions, customs, and beliefs.
4. Explain monotheistic versus polytheistic views.
5. Discuss geographic distribution at different times.
6. Compare and contrast political, social, and economic influences of each.
7. Discuss the long-standing religious conflicts and recent manifestations in places, e.g., Ireland, Middle East, and Bosnia.

12.2.7 Students will analyze the scientific, political, and economic changes of the 16th, 17th, 18th, and 19th centuries.

The Learner Will:

1. Explain the impact of scientific ideas on political institutions, social movements, and religion.
2. Discuss the establishment of absolute monarchies by individuals, e.g., Louis XIV, Frederick the Great, and Peter the Great.
3. Compare and contrast the Glorious Revolution in England and the French Revolution.
4. Explain the ideas of significant people, such as Hobbes, Locke, Montesquieu, Rousseau, and Jefferson.
5. Explain the new scientific theories, e.g., those of Newton, Kepler, Copernicus, Galileo, Harvey, and Franklin.
6. Discuss how technological changes brought about social, political, and cultural changes in Europe, Asia, and the Americas.

7. Explain how the arts, philosophy, and literature were influenced by people, such as Voltaire, Diderot, Delacroix, Bach, and Mozart.
8. Discuss the influence of religious beliefs on art, politics, science, and commerce.

12.2.8 Students will describe 19th century political developments in Europe, and their impact on the world.

The Learner Will:

1. Summarize the Congress of Vienna and its influence on the political geography of Europe.
2. Describe the attempts at expansion of democracy in Europe, e.g., Chartist Movement, British Reform Laws, and liberal revolutions.
3. Relate the growth of nationalism, e.g., unification of Germany and Italy.
4. Describe the scramble for empire in Europe, Africa, and Asia Latin America.
5. Address the feminist issues, e.g., divorce, property, and suffrage.
6. Outline the abolition of slavery and slave trade.

12.2.9 Students will analyze and explain the effects of the Industrial Revolution.

The Learner Will:

1. Describe the rise of industrial economics and their link to imperialism and colonialism.
2. Explain how scientific and technological changes, e.g., the inventions of Watt, Bessemer, and Whitney, brought about massive social and cultural change.
3. Outline the responses to capitalism, e.g., utopianism, socialism, and communism.
4. Relate how the status of women and children reflected societal changes.
5. Explain the evolution of work and labor, e.g., the slave trade, mining and manufacturing, and the union movement.
6. Explain how Asia and Africa were transformed by European commercial power.
7. Summarize the dominance of global economic systems by European powers.

12.2.10 Students will analyze major 20th century historical events.

The Learner Will:

1. Relate ethnic conflicts, e.g., Bosnia, Arab-Israeli conflict, Biafra and Rwanda, Northern Ireland and Kashmir, and Zapatistas and Mexico.
2. Compare trends in global populations, growth and distribution over time.
3. Differentiate the development of collective security organizations, e.g., League of Nations, the United Nations, NATO, and Warsaw Pact.
4. Differentiate the development of world economic associations, e.g., E.C., NAFTA, WTO, World Bank, IMF.
5. Discuss the extension of human rights, e.g., women and all nationalities.
6. Compare the causes and effects of World War I and World War II.
7. Summarize the Russian Revolution.
8. Relate the rise, aggression, and human costs of totalitarian regimes in the Soviet Union, Germany, Italy, and Japan.
9. Summarize the political, social, and economic impact of the 1930's worldwide depression.
10. Describe the Nazi Holocaust and other examples of genocide.
11. Explain how new technologies, e.g., atomic power, influenced patterns of conflict.

12. Discuss the economic and military power shifts since 1945, e.g., the rise of Germany and Japan as economic powers.
13. Relate the revolutionary movements in Asia and its leaders, e.g., Mao Tse-tung and Ho Chi Minh.
14. Explain how African and Asian countries achieved independence from European colonial rule, e.g., India under Gandhi and Kenya under Kenyatta, and how they have fared under self-rule.
15. Describe regional and political conflicts, e.g., Korea and Vietnam.
16. Summarize the end of the end of the Cold War and the collapse of the Soviet Union.

12.2.11 Students will demonstrate historical research and geographical skills.

The Learner Will:

1. Identify, analyze, and interpret primary and secondary sources and artifacts.
2. Validate sources as to their authenticity, authority, credibility, and possible bias.
3. Construct various time lines of key events, periods, and personalities since the 11th century.
4. Identify and analyze major shifts in national political boundaries in Europe since 1815.
5. Identify the distribution of major religious cultures in the contemporary world.
6. Apply geography to interpret the past by using maps of time, place events to put together the shifts in boundaries and culture/religious groups through time.

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WORD CHOICE- Selecting, identifying and revising specific descriptive language.
SENTENCE FLUENCY – Smooth writing patterns and rhythmic flow of language.
CONVENTIONS- Using appropriate editing and presentation skills.

Criteria For Evaluation And Assessments:

1. Use district assessment form to implement six traits writing in the classroom.
2. Put visual aide materials up in the classroom to promote the six traits.
3. Administer appropriate rubrics and assessments.

MULTICULTURAL EDUCATION

The instructional program at Johnson County Central Public Schools incorporates multicultural education in all curriculum areas at all grades. Multicultural education includes, but is not limited to studies relative to the culture, history, and contribution African Americans, Hispanic Americans, Native Americans, Asian Americans, and European Americans with special emphasis on human relations and sensitivity toward all races.

Criteria For Evaluation And Assessments:

1. A district assessment form is used to document multicultural education in the classroom.
2. An annual status report is provided to the local board of education.
3. Administer assessment of multicultural education at all six levels using Bloom's taxonomy.

MIDDLE AGES TO RENAISSANCE

Middle Ages, Feudalism, Crusades
Medieval Era, Nation – States are Created
Renaissance

REFORMATION AND EXPANSION

Protestant Reformation
Catholic Counter – Reformation
European Expansion into Americas, Asia, and Africa

WORLD RELIGIONS

Buddhism
Christianity
Islam
Hinduism
Judaism
Confucianism

WORLD REVOLUTIONS

Absolutism
Science and Philosophy
Revolution

AGE OF NATION – STATES

Nationalism
Scramble for Empire
Suffrage and Slavery

INDUSTRIAL REVOLUTION

Industrial Economics
Science and Technology
Capitalism, Socialism, and Communism

20TH CENTURY

Through WWI
Through WWII
To Present

TITLE: **AMERICAN HISTORY**
GRADE: **11th**

RESOURCE MATERIALS: Textbook, handouts and worksheets, Films/media, literary works, primary source materials, online documents

CRITERIA FOR EVALUATION AND ASSESSMENT: Tests, quizzes, discussions, group activities and project grades.

STATE STANDARDS:

12.1.1 Students will analyze and explain the causes and effects of the Age of Discovery, contacts between Native Americans and European settlers, and the creation of the American colonies.

The Learner Will:

1. Explain the economic and cultural characteristics of the groups.
2. Summarize the motives and strategies of the explorers and settlers.
3. Explain the impacts of European settlers on the Native Americans.
4. Relate the legacies of contact, cooperation, and conflict from the period.
5. Explain the motivation of ethnic and religious groups, and how immigrants influenced the settlement of colonies.
6. Summarize the economic activity.
7. Compare the social customs, the arts, and religious beliefs.

12.1.2 Students will analyze and explain the events and ideas of the Early National Period.

The Learner Will:

1. Relate changes in British policies that provoked the American colonists.
2. Discuss the debate within America concerning separation from Britain.
3. Compare the Declaration of Independence and "Common Sense"
4. Describe the roles played by the individual leaders.
5. Summarize key battles, military turning points, and key strategic decisions.
6. Compare the Articles of Confederation and the Declaration of Independence.
7. Discuss the issues and policies affecting relations among existing and future states, e.g., the Northwest Ordinance.
8. Explain the Constitutional Convention, e.g., the leadership of James Madison and George Washington.
9. Compare and Contrast the struggle for ratification of the Constitution, the Federalist Papers, and the Anti-Federalist arguments.
10. Explain the addition of the Bill of Rights to the Constitution.
11. Relate the organization of the national government under the new Constitution.
12. Summarize the development of political parties.
13. Explain how the impact of Supreme Court cases, e.g., Marbury vs. Madison and McCullouch vs. Maryland, affect the interpretation of the Constitution.
14. Explain foreign relations and conflicts, e.g., the War of 1812 and the Monroe Doctrine.
15. Discuss the Louisiana Purchase and the acquisition of Florida
16. Summarize the economic development, trade, tariffs, taxation, and trends in the national debt.

12.1.3 Students will analyze the causes and effects of major events of the Civil War and Reconstruction.

The Learner Will:

1. Discuss the causes and effects of slavery.
2. Explain the States' Rights Doctrine
3. Discuss tariffs and trade.
4. Describe the settlement of the Western United States.
5. Explain Secession.
6. Compare and contrast the military advantages of the Union and the Confederacy.
7. Explain the threat of foreign intervention.
8. Discuss the economic and political impact of the war.
9. Explain the roles played by the individual leaders.
10. Relate the impact of Reconstruction policies on the South.

12.1.4 Students will analyze the impact of immigration on American life, identifying factors.

The Learner Will:

1. Contributions of Native Americans, Hispanic Americans, African Americans, European Americans, Asian Americans, and immigrant groups and individuals.
2. Ethnic conflict and discrimination.
3. The United States domestic policies

12.1.5 Students will summarize causes and effects of the Industrial Revolution.

The Learner Will:

1. Explain equality of all citizens under the law.
2. Explain worth and dignity of the individual.
3. Debate majority and minority rights.
4. Identify individual freedoms.
5. Explain necessity of compromise.
6. Analyze individual rights v. public interest.

12.1.6 Students will analyze the origins and effects of World War I.

The Learner Will:

1. Describe the end of the Ottoman Empire and the creation of new states in the Middle East.
2. Relate the declining role of Great Britain and the expanding role of the United States in world affairs.
3. Summarize the political, social, and economic change in Europe and the United States.
4. Explain the causes of World War I.

12.1.7 Students will analyze and explain the Great Depression

The Learner Will:

1. Explain the causes and effects of changes in the business cycle.
2. Describe the weaknesses in key sectors of the economy in the late 1920's.
3. Summarize United States government's economic policies in the late 1920's.
4. Explain the causes and effects of the Stock Market Crash.
5. Describe the impact of the Depression on the American people.
6. Explain the impact of New Deal economic policies.
7. Explain the impact of the expanded role of government in the economy since the 1930's.

12.1.8 Students will recognize and explain the origins and effects of World War II.

The Learner Will:

1. Describe the rise of and aggression of totalitarian regimes in Germany, Italy, and Japan.
2. Summarize the rise of Fascism, Nazism, and Communism in the 1930's and 1940's and the response of Europe and the United States.
3. Explain the role of the Soviet Union.
4. Explain appeasement, isolationism, an the war debates in Europe and the United States prior to the outbreak of war.
5. Relate the impact of mobilization for war, at home and abroad.
6. Summarize the major battles, military turning points, and key strategic decisions.
7. Explain the Holocaust and its impact.
8. Describe the reshaping of the United States' role in world affairs after the war.
9. Summarize the major changes in Eastern Europe, China, Southeast Asia, and Africa following the war.

12.1.9 Students will analyze and explain United States foreign policy since World War II.

The Learner Will:

1. Summarize the origins of the Cold War and the foreign and domestic consequences.
2. Describe Communist containment policies in Europe, Latin America, and Asia.
3. Describe McCarthyism and the fear of communist influence within the United States.
4. Explain strategic and economic factors in Middle East policy.
5. Describe the relations with South Africa and other African nations.
6. Describe the collapse of communism and the end of the Cold War
7. Explain the new challenges to America's leadership role in the world.
8. Analyze the confrontations with the Soviet Union in Berlin and Cuba.
9. Explain NATO and other alliances and the United States role in the United Nations.
10. Describe nuclear weapons and the arms race.
11. Summarize military conflicts in Korea, Vietnam, and the Middle East.

12.1.10 Students will evaluate developments in federal civil rights and voting since the 1950's.

The Learner Will:

1. The Brown v. Board of Education decision and its impact on education.
2. Civil Rights demonstrations and related activity leading to desegregation of public accommodations, transportation, housing, and employment.
3. The impact of reapportionment cases and voting rights legislation on political participation and representation.
4. Affirmative Action.

12.1.11 Students will demonstrate an understanding of domestic policy issues in contemporary American society.

The Learner Will:

1. Compare conservative and liberal economic strategies.
2. Compare the position of political parties and interest groups on major issues.

12.1.12 Students will explain and demonstrate relationships between geographical and the historical development of the United States by using maps, pictures, and computer databases.

The Learner Will:

1. Analyze maps of United States migration from the 15th Century until today.

12.1.13 Students will develop skills for historical analysis.

The Learner Will:

1. Research their family ancestory.
2. Present a family history report to their classmates.

12.1.14 Students will demonstrate verbal and written skills that focus on enduring issues, divergent viewpoints, and excerpts from famous speeches and documents in United States history.

The Learner Will:

1. Research past speeches given by people such as Martin Luther King Jr., Malcolm X, John F. Kennedy, and Dwight D. Eisenhower
2. Read and present evaluations of famous speeches.

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VOICE - Includes the expression of a writer's personality; an awareness of the intended audience; and a skillful blend of detail, enthusiasm, and knowledge of the topic.
WORD CHOICE - Selecting, identifying, and reviewing specific descriptive language.
SENTENCE FLUENCY - Smooth writing patterns and rhythmic flow of language.
CONVENTIONS - Using appropriate editing and presentation skills.

Criteria For Evaluation And Assessments:

1. Students will do a Family History Project.
2. Use district assessment form to implement six trait writing in the classroom.
3. Put visual aide materials up in the classroom to promote the six traits.
4. Administer appropriate rubrics and assessments.

MULTICULTURAL EDUCATION

The instructional program at Johnson County Central Public Schools incorporates multicultural education in all curriculum areas at all grades. Multicultural education includes, but is not limited to, studies relative to culture, history, and contributions of African Americans, Hispanic Americans, Native Americans, Asian Americans and European Americans with special emphasis on human relations and sensitivity toward all races.

Criteria For Evaluation And Assessments:

1. A district assessment form is used to document multicultural education in the classroom.
2. An annual status report is provided to the local board of education.

AGE OF DISCOVERY UNIT:

Motives and strategies of the explorers and settlers
Impact of European settlement on Native Americans
Motivation of ethnic and religious groups immigrating to America
Political developments in America

EARLY NATIONAL PERIOD UNIT:

Examine the Declaration of Independence and Articles of Confederation
British policies that provoked the American colonists
Key battles, military turning points, and key strategic decisions in the Revolutionary War.
Causes and effects of the Revolutionary War
Examine the Constitution and Bill of Rights

CIVIL WAR UNIT:

Causes and effects of slavery
Attitudes about slavery in the North and the South
Settlement of Western United States
Compare and contrast military advantages of the Union and the Confederacy
Economic and political impact of the war
Impact of Reconstruction on the South and the North
Abe Lincoln and the Emancipation Proclamation

IMMIGRATION AND WESTWARD EXPANSION UNIT:

Impact of immigration on Native Americans
The Transcontinental Railroad
Motives to move westward in the United States
Farming, Ranching, and Mining in the West
Family History Projects

INDUSTRIAL REVOLUTION UNIT:

New inventions and industrial production methods
New technology in transportation and communication
Capitalism and free enterprise
Impact of immigration on the work force and cities
Standards of living in cities
Child labor, working conditions, and unions
Government policies dealing with trade, monopolies, taxes, and money supply.
The Progressive Movement
Women's Suffrage and temperance
Political changes on the national, state, and local level

WORLD WAR I UNIT:

Causes and effects of World War I
Alliances made before the war
Political and economic changes in Europe and the United States
United States involvement in World War I
The impact of the war on soldiers lives

GREAT DEPRESSION UNIT:

The business cycle
United States' economic policies during the 1920's
Causes and effects of the Stock Market Crash
Impact of the Great Depression on the American people
The New Deal

WORLD WAR II UNIT:

Totalitarian governments of Germany, Italy, and Japan
Alliances made before the war
The rise of Fascism, Nazism, and Communism
Appeasement, isolationism, and war debates in Europe and the United States
Major battles and turning points of the war
The Holocaust and its impact
United States role in world politics following the war
Impact of the war on the world

COLD WAR UNIT:

Communist containment policies in Europe, Asia, and Latin America
The impact of the Red Scare on the American people
The collapse of Communism and the end of the Cold War
Major confrontations between Communism and the United States
NATO
Nuclear weapons and the arms race
Major military conflicts in Korea, Vietnam, and the Middle East

CIVIL RIGHTS UNIT:

Brown vs. Board of Education
Major Civil Rights leaders (Martin Luther King, Jr., Rosa Parks, Malcolm X)
Civil rights demonstrations
Voting rights
Affirmative action

TITLE: **AMERICAN GOVERNMENT**
GRADE: **12th**

RESOURCE MATERIALS: Textbook, handouts and worksheets, Films/media, primary source materials, online documents.

CRITERIA FOR EVALUATION AND ASSESSMENT: Tests, quizzes, discussions, group activities and project grades.

STATE STANDARDS:

12.3.1 Students will compare historical forms of democratic governments that influenced the United States Constitution in 1789.

The Learner Will:

1. Describe forms of democracy that existed in ancient Greece and Rome.
2. Describe the constitutional monarchy of Great Britain.
3. Describe governments in early American colonies.
4. Describe governments in early United States in the 18th century.

12.3.2 Students will identify examples of fundamental United States political principles contained in the Declaration of Independence, Articles of Confederation, Federalist Papers, Common Sense, and the United States Constitution.

The Learner Will:

1. Examine Locke, Hobbes, Montesquieu, Rousseau, Blackstone, Jefferson, Paine, and Machiavelli's theory of government as described in the Prince.
2. Describe the constitutionalism, limited government, rule of law, republicanism, and democracy.
3. Identify how the political ideas of the Enlightenment and the ideas of religion affected the founders of the United States.
4. Define sovereignty and consent of the governed.
5. Describe separation of powers, federalism, and checks and balances.
6. Compare the Declaration of Independence and "Common Sense."

12.3.3 Students will analyze the significance of amendments to the United States Constitution.

The Learner Will:

1. Identify factors, e.g., the conflicts they addressed and the reasons for their adoption.
2. Analyze fundamental liberties, rights, and values outlined by the United States Constitution.
3. Identify factors addressed by the constitution, e.g., religion, speech, press, assembly and petition, due process, equality under the law, individual worth and dignity, and majority rule and minority rights.

12.3.4 Students will evaluate and summarize landmark Supreme Court interpretations of the United States Constitution and its amendments.

The Learner Will:

1. Describe how Marbury v. Madison and McCulloch v. Maryland affected the Constitution.
2. Examine federal civil and voting rights since 1950's, e.g., Brown v. Board of Education, demonstrations leading to desegregation, reapportionment, and voting rights legislation.

12.3.5 Students will analyze the fundamental concepts and challenges to democracy by using writing, discussion, and debate skills.

The Learner Will:

1. Participate in debates, discussions, and readings by analyzing public issues, communicating with candidates, and evaluating performance of public officials and candidates.

12.3.6 Students will analyze the structure, and function of the United States national government and its relationship to state governments.

The Learner Will:

1. Describe the organization, and authority of each branch.
2. Examine the principles of federalism, e.g., concurrent, delegated, and reserved powers.
3. Examine separation of powers, and checks and balances.
4. Examine procedures for constitutional amendment, e.g., Article IV.
5. Identify specific policies related to foreign affairs, civil rights, and economics and the budget.
6. Identify how political parties, interest groups, the media, individuals, and government institutions influence public policy.
7. Describe levels of taxation and expectation of public services.

12.3.7 Students will analyze structure and function of Nebraska state and local governments.

The Learner Will:

1. Describe the organization and authority of each branch.
2. Explain procedures for state constitutional and local charter amendments.
3. Explain how Nebraska's legislative, executive, and judicial institutions make public policy, e.g., legislation, regulations, executive orders, and judicial review.
4. Compare Nebraska's unicameral with a bicameral form of government.
5. Identity and distinguish units of local governments in Nebraska, e.g., counties, cities, towns, and regional authorities by analyzing a local public issue.
6. Identify fundamental American political principles in Nebraska constitution, fundamental liberties, rights, and values, e.g., sovereignty, consent of the governed, separation of powers, federalism, and checks and balance.
7. Identify how political parties, interest groups, the media, individuals, and government institutions influence public policy.
8. Describe levels of taxation and the expectation of public services.

12.3.8 Students will describe and explain the election process in the national, state, and local governments.

The Learner Will:

1. Describe the organization of political parties and role in the nominating process.
2. Explain campaign funding and spending.
3. Identify the influence the media coverage, campaign advertising, public opinion polls, and the use of propaganda techniques.
4. Explain demographic causes and political effects of reapportionment and redistricting, e.g., gerrymandering.
5. Explain the development of political parties and Electoral College.

12.3.9 Students will explain the rights, freedoms, responsibilities, and benefits of citizenship in the United States.

The Learner Will:

1. Participate in debates, discussions, and readings by analyzing public issues, communicating with candidates, and evaluating performance of public officials and candidates.

12.3.10 Students will compare the United States political and economic systems with those of major democratic and authoritarian nations.

The Learner Will:

1. Compare the structures, functions, and powers of political and economic systems.
2. Describe the rights, responsibilities, and powers of the governed, e.g., grass roots citizens' movements.
3. Compare the relationship between economic and political freedom.
4. Explain the allocation of resources and its impact on productivity.
5. Describe the development and implementation of personal economic decision-making skills in a democratic society.

12.3.11 Students will analyze characteristics of the United States free market economy.

The Learner Will:

1. Define labor, capital resources, and natural resources.
2. Describe the role of private ownership, private enterprise, profits, and entrepreneurship.
3. Compare the relationship between households, firms, and government.
4. Explain the labor and management relationships.
5. Discuss opportunity costs, scarcity, and balancing unlimited wants versus limited resources.
6. Explain supply and demand, and the formation of basic economic questions, including what to produce, how to produce, and for who to produce.

12.3.12 Students will analyze the role of the national, state, and local government in the United States economy.

The Learner Will:

1. Compare interstate commerce and trade policies.
2. Discuss promoting economic growth by providing favorable conditions for markets.
3. Comparing providing public goods, services, and protection of the environment.
4. Explain the interrelationship of producers, consumers, and government in the United States economic system.
5. Discuss the impact of fiscal and monetary policy.
6. Identify the basic economic goals in a free market system, including growth, stability, full employment, and efficiency versus equity and justice.

12.3.13 Students will examine the basic economic indicators and fundamentals of international trade.

The Learner Will:

1. Define Gross Domestic Product
2. Define Consumer Price Index, employment statistics, and other measure of economic conditions.
3. Explain comparative and absolute advantages.
4. Discuss exchange rates.
5. Explain international trade policies, and the United States relationship to the global economy

SIX TRAIT CURRICULUM

The Johnson County Central Public School District endorses and implements the Six Traits model of writing instruction and assessment. It is an ongoing expectation that all faculty members will implement the mode of language instruction in their classroom.

IDEAS - The writer's primary message, point of story, showing details and clarity.
ORGANIZATION - Putting information into an order that show direction and purpose.
VOICE - Includes the expression of a writer's personality; an awareness of the intended audience; and a skillful blend of detail, enthusiasm, and knowledge of the topic.
WORD CHOICE - Selecting, identifying, and reviewing specific descriptive language.
SENTENCE FLUENCY - Smooth writing patterns and rhythmic flow of language.
CONVENTIONS - Using appropriate editing and presentation skills.

Criteria For Evaluation And Assessments:

1. Students will do a Presidential Election Report.
2. Use district assessment form to implement six trait writing in the classroom.
3. Put visual aide materials up in the classroom to promote the six traits.
4. Administer appropriate rubrics and assessments.

MULTICULTURAL EDUCATION

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Criteria For Evaluation And Assessments:

1. A district assessment form is used to document multicultural education in the classroom.
2. An annual status report is provided to the local board of education.

HISTORICAL FOUNDATIONS OF GOVERNMENT UNIT:

Examine the Natural Rights Philosophy
Examine Classical Republicanism
Early forms of Democracy in Greece and Rome
Constitutional monarchies in Great Britain
Examine the Declaration of Independence
State Constitutions
Explain how Locke, Hobbes, Montesquieu, Rousseau, Blackstone, Jefferson,

Paine, and Machiavelli influenced U.S. government

CONSTITUTION UNIT:

Examine the Articles of Confederation
Examine parts to the Constitution
Federalist and Anti-Federalist ideas about the Constitution
Separation of powers, federalism, and checks and balances
Fundamental liberties, rights, and values of citizens

ORGANIZATION OF GOVERNMENT AND POLITICAL PARTIES UNIT:

Federalism and the United States
Judicial Review
Types of Parties in the United States
Voting requirements in the United States
Electoral College
Nominating Process

EXPANDING THE BILL OF RIGHTS UNIT:

Constitutional Issues and the Civil War
Amendments added to protect African-Americans
The Civil Rights Movement
Expanding the Right to Vote

RIGHTS OF THE PEOPLE UNIT:

Limitations on the power of government
Freedom of Expression
Freedom of Assembly, Petition, and Association
Procedural Due Process
Fourth and Fifth Amendments
The Fifth through Eighth amendments

ROLES OF THE CITIZEN IN THE UNITED STATES UNIT:

What does it mean to be a citizen?
How do we use our citizenship?
Constitutionalism in other countries
Issues facing other nations

STATE AND LOCAL GOVERNMENT UNIT:

Levels of government
Federalism, separation of powers, and checks and balances
Public interests groups in the United States
Nebraska's government
Unicameral vs. Bicameral governments
Legislative, executive, and judicial branches in Nebraska

UNITED STATES ECONOMY UNIT:

Labor, capital resources, and natural resources
Compare and contrast capitalism, socialism, and communism
Basic economic questions – What to produce? How to produce? For whom to produce?
Gross Domestic Product
International trade policies

TITLE: **PSYCHOLOGY**
GRADE: **10th – 12th**

RESOURCE MATERIALS: Textbook, Six Traits worksheets/activities, Films/media, Information handouts, Textbook worksheets, Internet Resources, Maps, PowerPoint presentations.

CRITERIA FOR EVALUATION AND ASSESSMENT: Examinations, quizzes, discussions, written projects, group and individual activities, criterion and norm referenced assessments, and visual illustration models. Additional emphasis is placed on written expression, content synthesis, and vocabulary.

STATE STANDARDS:

12.1.13

Students will develop skills for historical analysis.
The Learner Will:

1. Analyze documents, records, and data, e.g., artifacts, diaries, letters, photographs, journals, newspapers, and historical accounts.
2. Evaluate the authenticity, authority, and credibility of sources.
3. Formulate questions and defend findings based on inquiry and interpretation.
4. Develop perspectives of time and place, such as the construction of various time lines of events, periods, and personalities.
5. Communicate findings orally, in brief analytical essays, and in a comprehensive paper.

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WORD CHOICE- Selecting, identifying and revising specific descriptive language.
SENTENCE FLUENCY – Smooth writing patterns and rhythmic flow of language.
CONVENTIONS- Using appropriate editing and presentation skills.

Criteria For Evaluation And Assessments:

1. Use district assessment form to implement six traits writing in the classroom.
2. Put visual aide materials up in the classroom to promote the six traits.
3. Administer appropriate rubrics and assessments.

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Criteria For Evaluation And Assessments:

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2. An annual status report is provided to the local board of education.
3. Administer assessment of multicultural education at all six levels using Bloom's taxonomy.

LEARNING AND COGNITION

Learning
Memory
Thinking and Language
Intelligence

PERSONALITY

Motivation and Emotion
Theories of Personality
Psychological Tests
Gender Roles

HEALTH AND ADJUSTMENT

Stress and Health
Psychological Disorders
Methods of Therapy

DEVELOPMENT

Infancy and Childhood
Adolescence
Adulthood

TITLE: **SOCIOLOGY**
GRADE: **10th – 12th**

RESOURCE MATERIALS: Textbook, Six Traits worksheets/activities, Films/media, Information handouts, Textbook worksheets, Internet Resources, Maps, PowerPoint presentations.

CRITERIA FOR EVALUATION AND ASSESSMENT: Examinations, quizzes, discussions, written projects, group and individual activities, criterion and norm referenced assessments, and visual illustration models. Additional emphasis is placed on written expression, content synthesis, and vocabulary.

STATE STANDARDS:

12.1.13 Students will develop skills for historical analysis.

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1. Analyze documents, records, and data, e.g., artifacts, diaries, letters, photographs, journals, newspapers, and historical accounts.
2. Evaluate the authenticity, authority, and credibility of sources.
3. Formulate questions and defend findings based on inquiry and interpretation.
4. Develop perspectives of time and place, such as the construction of various time lines of events, periods, and personalities.
5. Communicate findings orally, in brief analytical essays, and in a comprehensive paper.

12.4.6 Students will analyze the forces of conflict and cooperation.

The Learner Will:

1. Explain the way in which the world is divided among independent and dependent countries.
2. Describe disputes over borders, resources, and settlement areas.
3. Describe the historic and future ability of nations to survive and prosper.
4. Explain the role of multinational organizations.

12.4.4 Students will analyze the patterns of urban development, such as site and situation; the function of towns and cities; and problems related to human mobility, social structure, and the environment.

12.4.3 Students will compare and contrast the distribution, growth rates, and characteristics of human population, e.g., settlement patterns and the location of natural and human resources.

The Learner Will:

1. Analyze past and present migration trends.
2. Analyze the social, economic, political, and environmental factors that influence cultural interaction.
3. Analyze past and present trends in human migration and cultural interaction as they are influenced by social, economic, political, and environmental factors.

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SENTENCE FLUENCY – Smooth writing patterns and rhythmic flow of language.
CONVENTIONS- Using appropriate editing and presentation skills.

Criteria For Evaluation And Assessments:

1. Use district assessment form to implement six traits writing in the classroom.
2. Put visual aide materials up in the classroom to promote the six traits.
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CULTURAL AND SOCIAL STRUCTURE

Cultural Diversity
Cultural Conformity and Adaptation
Social Structure

THE INDIVIDUAL IN SOCIETY

Socializing the Individual
The Adolescent in Society
The Adult in Society
Deviance and Social Control

SOCIAL INEQUALITY

Social Stratification
Racial and Ethnic Relations
Gender, Age, and Health

SOCIAL INSTITUTIONS

- The Family
- The Economy and Politics
- Education and Religion
- Science and the Mass Media

THE CHANGING SOCIAL WORLD

- Population and Urbanization
- Collective Behavior and Social Movements
- Social Change and Modernization

TITLE: MILITARY HISTORY
GRADE: 10TH - 12TH

RESOURCE MATERIALS: teacher supplement guides, online resources, primary and secondary documents/video/audio

CRITERIA FOR EVALUATION AND ASSESSMENT: Exams, quizzes, discussions, research activities, research papers, various individual and group projects, daily assessments/assignments – additional emphasis will be placed on

STATE STANDARDS:

NE.12.2.1. World History: 1000 C.E. to the Present: Students will demonstrate an understanding of the state of the world about 1000 C.E.

12.2.1.1. Summarize the institution of feudalism in Europe, Asia, and Africa.

12.2.1.6. Describe the conflict between religions, e.g., Crusades and the Great Schism.

12.2.1.7. Summarize the technological advances in Asia and Latin America, e.g., calendars and metallurgy.

NE.12.2.2. World History: 1000 C.E. to the Present: Students will analyze the patterns of social, economic, political change, and cultural achievement in the late Medieval period.

12.2.2.2. Describe the conflicts among Eurasian powers, e.g., the Crusades, the Mongol conquests, and the expansion of the Ottoman Turks.

12.2.2.3. Explain the patterns of crisis and recovery, e.g., the Black Death.

NE.12.2.5. World History: 1000 C.E. to the Present: Students will analyze the impact of European expansion into the Americas, Africa, and Asia.

12.2.5.8. Describe the competition for resources and the rise of the Commercial Revolution and mercantilism.

12.2.5.9. Explain the cultural changes in indigenous societies.

NE.12.2.6. World History: 1000 C.E. to the Present: Students will compare and contrast Judaism, Christianity, Islam, Buddhism, Hinduism and Confucianism.

12.2.6.7. Discuss the long-standing religious conflicts and recent manifestations in places, e.g., Ireland, Middle East, and Bosnia.

NE.12.2.7. World History: 1000 C.E. to the Present: Students will analyze the scientific, political, and economic changes of the 16th, 17th, 18th, and 19th centuries.

12.2.7.2. Discuss the establishment of absolute monarchies by individuals, e.g., Louis XIV, Frederick the Great, and Peter the Great.

12.2.7.3. Compare and contrast the Glorious Revolution in England and the French Revolution.

NE.12.2.8. World History: 1000 C.E. to the Present: Students will describe 19th century political developments in Europe, and their impact on the world.

12.2.8.3. Relate the growth of nationalism, e.g., unification of Germany and Italy.

12.2.8.4. Describe the scramble for empire in Europe, Africa, and Asia Latin America.

NE.12.2.10. World History: 1000 C.E. to the Present: Students will analyze major 20th century historical events.

12.2.10.1. Relate ethnic conflicts, e.g., Bosnia, Arab-Israeli conflict, Biafra and Rwanda, Northern Ireland and Kashmir, and Zapatistas and Mexico.
12.2.10.3. Differentiate the development of collective security organizations, e.g., League of Nations, the United Nations, NATO, and Warsaw Pact.
12.2.10.6. Compare the causes and effects of World War I and World War II.
12.2.10.7. Summarize the Russian Revolution.
12.2.10.8. Relate the rise, aggression, and human costs of totalitarian regimes in the Soviet Union, Germany, Italy, and Japan.
12.2.10.10. Describe the Nazi Holocaust and other examples of genocide.
12.2.10.11. Explain how new technologies, e.g., atomic power, influenced patterns of conflict.
12.2.10.12. Discuss the economic and military power shifts since 1945, e.g., the rise of Germany and Japan as economic powers.
12.2.10.15. Describe regional and political conflicts, e.g., Korea and Vietnam
12.2.10.16. Summarize the end of the end of the Cold War and the collapse of the Soviet Union.

NE.12.2.11. World History: 1000 C.E. to the Present: Students will demonstrate historical research and geographical skills.

12.2.11.1. Identify, analyze, and interpret primary and secondary sources and artifacts.

12.2.11.2. Validate sources as to their authenticity, authority, credibility, and possible bias.

12.2.11.3. Construct various time lines of key events, periods, and personalities since the 11th century.

NE.12.1.1. United States History: Students will analyze and explain the causes and effects of the Age of Discovery, contacts between Native Americans and European settlers, and the creation of the American colonies.

12.1.1.3. Explain the impact of European settlement on the Native Americans.
12.1.1.4. Relate the legacies of contact, cooperation, and conflict from that period.

NE.12.1.2. United States History: Students will analyze and explain the events and ideas of the Early National Period.

12.1.2.1. Relate changes in British policies that provoked the American colonists.
12.1.2.2. Discuss the debate within America concerning separation from Britain.
12.1.2.3. Compare the Declaration of Independence and 'Common Sense.'
12.1.2.4. Describe the roles played by the individual leaders.
12.1.2.5. Summarize key battles, military turning points, and key strategic decisions.

NE.12.1.3. United States History: Students will analyze the causes and effects of major events of the Civil War and Reconstruction.

12.1.3.6. Compare and contrast the military advantages of the Union and the Confederacy.

12.1.3.7. Explain the threat of foreign intervention.
12.1.3.8. Discuss the economic and political impact of the war.
12.1.3.9. Explain the roles played by the individual leaders.

NE.12.1.6. United States History: Students will analyze the origins and effects of World War I.

12.1.6.4. Explain the causes of World War I.

NE.12.1.8. United States History: Students will recognize and explain the origins and effects of World War II.

12.1.8.1. Describe the rise of and aggression of totalitarian regimes in Germany, Italy, and Japan.

12.1.8.4. Explain appeasement, isolationism, and the war debates in Europe and the United States prior to the outbreak of war.

12.1.8.5. Relate the impact of mobilization for war, at home and abroad.

12.1.8.6. Summarize the major battles, military turning points, and key strategic decisions.

12.1.8.9. Summarize the major changes in Eastern Europe, China, Southeast Asia, and Africa following the war.

NE.12.1.9. United States History: Students will analyze and explain United States foreign policy since World War II.

12.1.9.1. Summarize the origins of the Cold War and the foreign and domestic consequences.

12.1.9.2. Describe Communist containment policies in Europe, Latin America, and Asia.

12.1.9.6. Describe the collapse of communism and the end of the Cold War.

12.1.9.9. Explain NATO and other alliances and the United States role in the United Nations.

12.1.9.10. Describe nuclear weapons and the arms race.

12.1.9.11. Summarize the military conflicts in Korea, Vietnam, and the Middle East.

SIX TRAIT CURRICULUM

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WORD CHOICE- Selecting, identifying and revising specific descriptive language.

SENTENCE FLUENCY – Smooth writing patterns and rhythmic flow of language.

CONVENTIONS- Using appropriate editing and presentation skills.

Criteria For Evaluation And Assessments:

1. Use district assessment form to implement six traits writing in the classroom.

2. Administer appropriate rubrics and assessments.

4. Model and reinforce proper grammar through a series of shorter and longer essays.

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Criteria for Evaluation and Assessments:

1. A district assessment form is used to document multicultural education in the classroom.

BATTLES/WARS OF ANCIENT HISTORY

Battle of Kadesh
Persian Wars
Peloponnesian War
Corinthian War
Punic Wars
Wars of Julius Caesar
Saxon Wars

CRUSADES

First Crusade
Second Crusade
Third Crusade
Fourth Crusade

MIDDLE AGE WARS

Mongol Wars
Wars for Scottish Independence
Hundred Years' War
Thirteen Years' War
War of the Roses
Spanish Conquest of the Aztecs
Spanish Conquest of the Incans
Thirty Years War

PRE – MODERN WARS

French and Indian War
Seven Years' War
American Revolution
French Revolution
Napoleonic Wars
War of 1812
Texas Revolution
Opium Wars
American Indian Wars
Boer Wars
American Civil War

MODEREN WARS

World War I
Russian Revolution
World War II
Cold War

Korean War
Cuban Revolution
Vietnam War

POST – MODERN WARS

Gulf War
War in Iraq
War on Terror

TITLE: ECONOMICS
GRADE: 9TH - 12TH

RESOURCE MATERIALS: Handouts and worksheets, films/media, online documents, newspapers.

CRITERIA FOR EVALUATION AND ASSESSMENT: Tests, quizzes, discussions, group activities and project guides.

STATE STANDARDS:

12.1.5 Students will summarize causes and effects of the Industrial Revolution.
The Learner Will:

1. Describe new inventions and industrial production methods.
2. Summarize new technologies in transportation and communication.
3. Explain incentives for capitalism and free enterprise.
4. Describe the impact of immigration on labor supply and the movement to organize workers.
5. Describe improvements in standards of living, life expectancy, and living conditions.
6. Explain child labor, working conditions, and the rise of organized labor.
7. Summarize government policies affecting trade, monopolies, taxation, and money supply.
8. Summarize muckraking literature and the rise of the Progressive Movement.
9. Describe women's suffrage and temperance movements, describing their impact on society.
10. Summarize political changes at the local, state, and nationals levels.

12.1.7 Students will analyze and explain the Great Depression
The Learner Will:

1. Explain the causes and effects of changes in the business cycle.
2. Describe the weaknesses in key sectors of the economy in the late 1920's.
3. Summarize United States government's economic policies in the late 1920's.
4. Explain the causes and effects of the Stock Market Crash.
5. Describe the impact of the Depression on the American people.
6. Explain the impact of New Deal economic policies.
7. Explain the impact of the expanded role of government in the economy since the 1930's.

12.1.9 Students will analyze and explain United States foreign policy since World War II.
The Learner Will:

1. Summarize the origins of the Cold War and the foreign and domestic consequences.
2. Describe Communist containment policies in Europe, Latin America, and Asia.
3. Describe McCarthyism and the fear of communist influence within the United States.
4. Explain strategic and economic factors in Middle East policy.
5. Describe the relations with South Africa and other African nations.
6. Describe the collapse of communism and the end of the Cold War
7. Explain the new challenges to America's leadership role in the world.
8. Analyze the confrontations with the Soviet Union in Berlin and Cuba.

9. Explain NATO and other alliances and the United States role in the United Nations.
10. Describe nuclear weapons and the arms race.
11. Summarize military conflicts in Korea, Vietnam, and the Middle East.

12.1.11 Students will demonstrate an understanding of domestic policy issues in contemporary American society.

The Learner Will:

1. Compare conservative and liberal economic strategies.
2. Compare the position of political parties and interest groups on major issues.

12.1.13 Students will develop skills for historical analysis.

The Learner Will:

1. Analyze documents, records, and data, e.g., artifacts, diaries, letters, photographs, journals, newspapers, and historical accounts.
2. Evaluate the authenticity, authority, and credibility of sources.
3. Formulate historical questions and defend findings based on inquiry and interpretation.
4. Develop perspectives of time and place, such as the construction of various time lines of events, periods, and personalities in American History.
5. Communicate findings orally, in brief analytical essays, and in a comprehensive paper.

12.3.10 Students will compare the United States political and economic systems with those of major democratic and authoritarian nations.

The Learner Will:

1. Compare the structures, functions, and powers of political and economic systems.
2. Describe the rights, responsibilities, and powers of the governed, e.g., grass roots citizens' movements.
3. Compare the relationship between economic and political freedom.
4. Explain the allocation of resources and its impact on productivity.
5. Describe the development and implementation of personal economic decision-making skills in a democratic society.

12.3.11 Students will analyze characteristics of the United States free market economy.

The Learner Will:

1. Define labor, capital resources, and natural resources.
2. Describe the role of private ownership, private enterprise, profits, and entrepreneurship.
3. Compare the relationship between households, firms, and government.
4. Explain the labor and management relationships.
5. Discuss opportunity costs, scarcity, and balancing unlimited wants versus limited resources.
6. Explain supply and demand, and the formation of basic economic questions, including what to produce, how to produce, and for who to produce.

12.3.12 Students will analyze the role of the national, state, and local government in the United States economy.

The Learner Will:

1. Compare interstate commerce and trade policies.
2. Discuss promoting economic growth by providing favorable conditions for markets.

3. Comparing providing public goods, services, and protection of the environment.
4. Explain the interrelationship of producers, consumers, and government in the United States economic system.
5. Discuss the impact of fiscal and monetary policy.
6. Identify the basic economic goals in a free market system, including growth, stability, full employment, and efficiency versus equity and justice.

12.3.13 Students will examine the basic economic indicators and fundamentals of international trade.

The Learner Will:

1. Define Gross Domestic Product
2. Define Consumer Price Index, employment statistics, and other measure of economic conditions.
3. Explain comparative and absolute advantages.
4. Discuss exchange rates.
5. Explain international trade policies, and the United States relationship to the global economy

SIX TRAIT CURRICULUM

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IDEAS- The writer's primary message, point of story, showing details and clarity.
ORGANIZATION- Putting in formation into an order that shows direction and purpose.
VOICE- Includes the expression of a writer's personality; an awareness of the intended audience: and a skillful blend of detail, enthusiasm, and knowledge of the topic.
WORD CHOICE- Selecting, identifying and revising specific descriptive language.
SENTENCE FLUENCY – Smooth writing patterns and rhythmic flow of language.
CONVENTIONS- Using appropriate editing and presentation skills.

Criteria For Evaluation And Assessments:

1. Students will do an individual economic plan.
2. Use district assessment form to implement six trait writing in the classroom.
3. Put visual aide materials up in the classroom to promote the six traits.
4. Administer appropriate rubrics and assessments.

MULTICULTURAL EDUCATION

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Criteria For Evaluation And Assessments:

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2. An annual status report is provided to the local board of education.

ECONOMICS AND CHOICE UNIT:

The Economic Way of Thinking
Economic Systems
The American Free Enterprise System

MARKET ECONOMICES AT WORK:

Demand
Supply
Demand, Supply, and Prices
Market Structures

PARTNERS IN THE AMERICAN ECONOMY UNIT:

Types of Business Organizations
The Role of Labor

MONEY, BANKING, AND FINANCE UNIT:

Money and Banking
Financial Markets

MEASURING AND MONITORING ECONOMIC PERFORMANCE UNIT:

Economic Indicators and Measurements
Facing Economic Challenges

THE ROLE OF GOVERNMENT IN THE GOVERNMENT UNIT:

Government Revenue and Spending
Using Fiscal Policy
The Federal Reserve and Monetary Policy

THE GLOBAL ECONOMY UNIT:

International Trade
Issues in Economic Development

TITLE: CRIMINAL JUSTICE
GRADE: 9TH - 12TH

RESOURCE MATERIALS: Handouts and worksheets, films/media, online documents, newspapers.

CRITERIA FOR EVALUATION AND ASSESSMENT: Tests, quizzes, discussions, group activities and project guides.

STATE STANDARDS:

12.3.3 Students will analyze the significance of amendments to the United States Constitution.

The Learner Will:

1. Identify factors, e.g., the conflicts they addressed and the reasons for their adoption.
2. Analyze fundamental liberties, rights, and values outlined by the United States Constitution.
3. Identify factors addressed by the constitution, e.g., religion, speech, press, assembly and petition, due process, equality under the law, individual worth and dignity, and majority rule and minority rights.

12.3.4 Students will evaluate and summarize landmark Supreme Court interpretations of the United States Constitution and its amendments.

The Learner Will:

1. Describe how Marbury v. Madison and McCulloch v. Maryland affected the Constitution.
2. Examine federal civil and voting rights since 1950's, e.g., Brown v. Board of Education, demonstrations leading to desegregation, reapportionment, and voting rights legislation.
3. Explain current patterns and evaluate the impact of Supreme Court decisions of domestic policy issues.

12.3.5 Students will analyze the fundamental concepts and challenges to democracy by using writing, discussion, and debate skills.

The Learner Will:

1. Participate in debates, discussions, and readings by analyzing public issues, communicating with candidates, and evaluating performance of public officials and candidates.

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SENTENCE FLUENCY – Smooth writing patterns and rhythmic flow of language.

CONVENTIONS- Using appropriate editing and presentation skills.

Criteria For Evaluation And Assessments:

1. Students will do law analysis studies.
2. Use district assessment form to implement six trait writing in the classroom.
3. Put visual aide materials up in the classroom to promote the six traits.
4. Administer appropriate rubrics and assessments.

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INTRODUCTION TO THE LAW AND LEGAL SYSTEM:

What is Law?
Lawmaking
Advocacy
Settling Disputes
The Court System
Lawyers

CRIMINAL JUSTICE AND JUVENILE LAW:

Crime in America
Introduction to Criminal Law
Crimes Against the Person
Crimes Against Property
Defenses
Criminal Justice Process: The Investigation
Criminal Justice Process: Proceedings Before Trial
Criminal Justice Process: The Trial
Criminal Justice Process: Sentencing and Corrections
Juvenile Justice
Law and Terrorism

TORTS:

Torts: A Civil Wrong
Intentional Torts
Negligence
Strict Liability
Torts and Public Policy

CONSUMER AND HOUSING LAW:

Contracts
Warranties

Credit and Other Financial Services
Deceptive Sales Practices
Becoming a Smart Consumer
Cars and the Consumer
Housing and the Consumer

FAMILY LAW:

Law and the American Family
Marriage
Parents and Children
Foster Care and Adoption
Separation, Divorce, and Custody
Government Support for Families and Individuals

INDIVIDUAL RIGHTS AND LIBERTIES:

Introduction to Constitutional Law
Freedom of Speech
Freedom of the Press
Expression in Special Places
Freedom of Religion
Due Process
The Right to Privacy
Discrimination
Rights and Responsibilities in the Workplace

TITLE: **SPANISH I**
GRADE: **9TH-12TH**

RESOURCE MATERIALS: Realidades textbook, worksheets, media such as DVD's, CD's, & movies, activities, and other workbook resources.

CRITERIA FOR EVALUATION AND ASSESSMENT: Tests, discussions, oral readings, dictation work, vocabulary work, group and individual activities, criterion and norm referenced assessments, Spanish portfolio, and quarter project. All objectives involve vocabulary, grammatical structure, cultural influence, pronunciation and conversation skills, and language connections.

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WORD CHOICE - Selecting, identifying, and reviewing specific descriptive language.
SENTENCE FLUENCY - Smooth writing patterns and rhythmic flow of language.
CONVENTIONS - Using appropriate editing and presentation skills.

Criteria For Evaluation And Assessments:

1. Use district assessment form to implement six trait writing in the classroom.
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MULTICULTURAL EDUCATION

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Criteria For Evaluation And Assessments:

1. A district assessment form is used to document multicultural education in the classroom.
2. An annual status report is provided to the local board of education.

CONCEPT OBJECTIVES

- Introduce oneself, greet others, and say good-bye
- Express simple courtesies
- Know the days of the week
- Know the months of the year
- Count from 1 to 100
- Know the seasons and weather
- Learn interrogatives (question words) and how to use them to find information

- Learn vocabulary terms
- Learn and implement knowledge of gender of nouns
- Learn adjectives and number and gender agreement of adjectives
- Learn how to conjugate –AR, -ER, and –IR verbs in all 6 tenses
- Learn how to write basic sentences with verbs, nouns, and adjectives in agreement
- Read small stories and translate simple dialogs
- Learn about the culture of various Spanish-speaking countries and complete the research project that includes a paper, power-point, and presentation.
- Learn about events, places, names of people
- Learn how to tell time
- Learn about school, school subjects, places in the school, and materials used in school
- Learn how to express opinions
- Learn definite and indefinite articles
- Discuss differences/similarities between schools in the U.S. and schools in Mexico and Spain
- Practice conversational skills
- Learn about home and family
    - Learn about food and customs of Spanish-speaking countries
    - Learn about items found in a kitchen and place settings
    - Write a paper in Spanish for a final quarter project
    - Complete a Spanish portfolio with information from all chapters as well as a check-list of material learned
    - Talk about likes and dislikes with gustar and encantar
    - Learn how to use negative words in sentence writing
    - Learn the subject pronouns and there meanings
    - Use of estar with feelings, location, and non-permanent characteristics
    - Use of ser with time, personality, permanent characteristics, origin, and nationality
    - Learn about vocabulary with community words
    - Learn food names and create a food pyramid
    - Learn the verb ir and uses
    - Learn about verb phrases and how to use them in the correct context
    - Learn conjugation o e-ie, o-ue, e-i, and other boot verbs
    - Learn conjugation of irregular verbs
    - Learn about celebrations in Spanish speak countries
    - Learn how tell age and ask others their age
    - Learn how to make diminutives

TITLE: **SPANISH II**
GRADE: **10TH-12TH**

RESOURCE MATERIALS: Realidades textbook, worksheets, media such as DVD's, CD's, & movies, activities, and other workbook resources.

CRITERIA FOR EVALUATION AND ASSESSMENT: Tests, worksheets, quizzes, oral readings, dictation work, vocabulary work, group and individual activities, criterion and norm referenced assessments, Spanish portfolio, and quarter project. All objectives involve vocabulary, grammatical structure, cultural influence, pronunciation and conversation skills, and language connections.

SIX TRAIT CURRICULUM

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WORD CHOICE - Selecting, identifying, and reviewing specific descriptive language.
SENTENCE FLUENCY - Smooth writing patterns and rhythmic flow of language.
CONVENTIONS - Using appropriate editing and presentation skills.

Criteria For Evaluation And Assessments:

1. Use district assessment form to implement six trait writing in the classroom.
2. Put visual aide materials up in the classroom to promote the six traits.
3. Administer appropriate rubrics and assessments.

MULTICULTURAL EDUCATION

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Criteria For Evaluation And Assessments:

1. A district assessment form is used to document multicultural education in the classroom.
2. An annual status report is provided to the local board of education.

CONCEPT OBJECTIVES

- Vocabulary for school items such as classroom materials and courses
- Vocabulary for school activities and rules
- Present tense verb conjugation including boot-verbs, irregular yo's, and irregular verbs
- Use of verb phrases with para, ir, tener and other important phrases
- How to make comparisons

- How to use hacer + time
- Learn the difference between saber and conocer, and uses
- Learn the difference between ser and estar, and uses
- Learn cultural information about Mexico, Spain, and other Spanish-speaking countries
- Learn vocabulary for body parts and clothing
- Learn how to use verb phrase with the infinitive
- Learn reflexive verbs
- Learn possessive adjectives
- Learn terms for fashion (size, shape, texture, etc. of clothing)
- Create fashion show, writing the dialog with reflexive verbs
- Write a children's story using reflexive verbs
- Learn regular and irregular preterite verbs
- Learn regular and irregular imperfect verbs
- Read the story Don Quixote and complete assignments
- Learn and use demonstrative adjectives
- Learn vocabulary names of buildings around town
- Learn how to discuss chores and things done at home, work, and school
- Learn direct object pronouns
- Learn how to ask for and give directions
- Learn commands
- Learn how to use the suffixes –ito, and –isimo
- Learn about holidays and festivals in Spanish-speaking countries
- Review vocabulary terms for family and relatives
- Learn how to decide between preterite and imperfect verbs
- Research an historical event in a Spanish-speaking country and then write a paper, create a power-point, and give a presentation on the event
- Journal in Spanish
- Write a paper describing life, school, or family in Spanish
- Continue with sentence construction and paragraph formation
- Teach Spanish on Fridays in the elementary quarters 1-3

TITLE: **SPANISH III**
GRADE: **11TH-12TH**

RESOURCE MATERIALS: Realidades textbook, worksheets, media such as DVD's, CD's, & movies, activities, and other workbook resources.

CRITERIA FOR EVALUATION AND ASSESSMENT: Tests, worksheets, quizzes, oral readings, dictation work, vocabulary work, group and individual activities, criterion and norm referenced assessments, and quarter project. All objectives involve vocabulary, grammatical structure, cultural influence, pronunciation and conversation skills, and language connections.

SIX TRAIT CURRICULUM

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WORD CHOICE - Selecting, identifying, and reviewing specific descriptive language.
SENTENCE FLUENCY - Smooth writing patterns and rhythmic flow of language.
CONVENTIONS - Using appropriate editing and presentation skills.

Criteria For Evaluation And Assessments:

1. Use district assessment form to implement six trait writing in the classroom.
2. Put visual aide materials up in the classroom to promote the six traits.
3. Administer appropriate rubrics and assessments.

MULTICULTURAL EDUCATION

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Criteria For Evaluation And Assessments:

1. A district assessment form is used to document multicultural education in the classroom.
2. An annual status report is provided to the local board of education.

CONCEPT OBJECTIVES

- Review basic uses and add more uses of the verb tener, ser, estar, and ir
- Review present tense irregular yo's
- Differentiate between saber and conocer
- Differentiate between ser and estar
- Learn more uses of negative and affirmative words
- Review present tense stem-changing verbs

- Review reflexive verbs
- Discuss daily routines, getting ready, and health
- Review possessive adjectives
- Learn school activity vocabulary terms
- Review preterite and imperfect verbs
  - Regular and irregular
- Review demonstrative adjectives and how to use adjectives as nouns
- Create a video distinguishing between preterite and imperfect verbs
- Learn vocabulary for chores and things done at home
- Review direct and indirect object pronouns
- Learn irregular affirmative tu commands
- Learn present progressive verb forms
  - Regular and irregular
- Learn vocabulary for emergencies, crisis, rescues
- Learn vocabulary for celebrations and festivals
  - Learn about how holidays are celebrated in Spanish-speaking countries
- Review weather terminology
- Learn i-y preterite verbs such as oir
- Review accents and proper placement
- Learn vocabulary about injuries and treatments
- Learn imperfect progressive tense
- Review cognates & false cognates
- Review gustar
- Journal in Spanish
- Teach elementary Spanish on Fridays quarters 1-3
- Continue with reading and writing exercises
- Read a novel
- Cook ethnic Spanish dishes
- Write a children's story with learned concepts
- Write and perform Spanish dialogs
- Write papers and journal in Spanish
- Research paper
- Complete a Spanish Portfolio
- Create power-points for class objectives to present to class or elementary students

TITLE: **SPANISH IV**
GRADE: **12TH**

RESOURCE MATERIALS: Realidades textbook, worksheets, media such as DVD's, CD's, & movies, activities, and other workbook resources.

CRITERIA FOR EVALUATION AND ASSESSMENT: Tests, worksheets, quizzes, oral readings, dictation work, vocabulary work, group and individual activities, criterion and norm referenced assessments, and quarter project. All objectives involve vocabulary, grammatical structure, cultural influence, pronunciation and conversation skills, and language connections.

SIX TRAIT CURRICULUM

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WORD CHOICE - Selecting, identifying, and reviewing specific descriptive language.
SENTENCE FLUENCY - Smooth writing patterns and rhythmic flow of language.
CONVENTIONS - Using appropriate editing and presentation skills.

Criteria For Evaluation And Assessments:

1. Use district assessment form to implement six trait writing in the classroom.
2. Put visual aide materials up in the classroom to promote the six traits.
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MULTICULTURAL EDUCATION

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Criteria For Evaluation And Assessments:

1. A district assessment form is used to document multicultural education in the classroom.
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CONCEPT OBJECTIVES

- Build on the student's Spanish vocabulary
- Review present, preterite and imperfect verbs
- Review verbs like gustar, encantar, fascinar, etc.
- Review direct and indirect object pronouns and their uses
- Learn television and movie vocabulary terms

- Learn the present perfect tense
  - Regular and irregular verbs
- Learn about the suffixes –oso(a), -ero and –dor(a)
- Review food terms, items in a kitchen, and follow a recipe
- Learn negative tu commands
- Learn about the impersonal se
- Learn about the differences between por and para
- Learn the usted and ustedes commands
- Form compound words
- Discuss professions in the Spanish world and in Spanish
- Learn how to use infinitives in verbal expressions
- Learn vocabulary terms for travel
- Learn the present subjunctive verb tense
  - Regular and irregular verbs
  - With expressions of doubt
- Review verbs with irregular yo's
- Learn the future tense
  - Regular and irregular verbs
- Learn the conditional tense
- Discuss professions
- Learn vocabulary with professions and the future
- Read a Spanish novel
- Create DVD's to reinforce concepts learned
- Teach elementary Spanish on Fridays quarters 1-3
- Continue with reading and writing exercises
- Talk about television shows, watch Spanish shows and write about the programs (in Spanish)
- Create a Spanish segment for T.V.
- Follow a Spanish recipe and create a Spanish dish
- Review Spanish cooking expressions
- Complete a Spanish portfolio
- Write Spanish and perform Spanish dialogs
- Journal and write in Spanish
- Write a research paper
- Create power-points for class objectives to present to class or elementary students
- Write a children's story with learned concepts

TITLE: INTRIGAS
GRADE: 9th-12th

RESOURCE MATERIALS: Intrigas book, movies, readings (stories and poetry), and activities

CRITERIA FOR EVALUATION AND ASSESSMENT: Tests, discussions, readings, dication work, vocabulary work, group and individual activities, criterion-referenced assessments, and quarter projects. All objectives involve vocabulary, grammatical structure, cultural influence, pronunciation and conversational skills and language connections.

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Criteria For Evaluation And Assessments

1. A district assessment form is used to document multicultural education in the classroom.
2. An annual status report is provided to the local board of education.

CONCEPT OBJECTIVES:
Unit 1
Themes:
Comparison of stereotypes
Examination of feminism
Movies/Stories/Poetry:
Sístole diástole

Cine y malabarismo
Tú me quieres blanca
Los viudos de Margaret Sullavan
Marianela
Grammar:
ser/estar
Writing:
Un ensayo literario interpretativo

Unit 2
Themes:
War
Movies/Stories/Poetry:
El laberinto del fauno
Los censores
Explico algunas cosas
La casa de Bernarda Alba
Grammar:
Perterit and imperfect
Writing:
Un ensayo de comparación y contraste

Unit 3
Themes:
Styles of stories: suspense, naturalism, modernism
Movies/Stories/Poetry:
Tercero B
El revólver
La Tísca
La noche boca arriba
El hijo
Grammar:
Las preposiciones
Writing:
Un reseña crítica

Unit 4
Themes:
Immigration
Social classes
History
Movies/Stories/Poetry:
El hijo de la novia
La prodigiosa tarde de Baltazar
No oyes ladrar los perros
Canción de otoño en primavera
El jorobadito
Grammar:
subjunctive
Writing:
Un informe literario

Unit 5
Themes:
History of Mexico and Argentina
Theater
Postmodernism
Movies/Stories/Poetry:
Mujeres al borde de un ataque de nervios
El eterno femenino
Emma Zunz
Una lucha muy personal
Elogio de la madrastra
Grammar:
subjunctive
Writing:
Un análisis de un personaje

Unit 6
Themes:
Chile's political history
Racism
Peruvian traditions
Movies/Stories/Poetry:
El crimen del padre Amaro
La conciencia
El alacrán de fray Gómez
La nochebuena de Encarnación Mendoza
El delantal blanco
Grammar:
Conditional sentences
Writing:
Un ensayo de causa y efecto

TITLE: **PHYSICAL EDUCATION**
GRADE: **9TH**

RESOURCE MATERIALS: Teacher resource guides, PE equipment, written and skills tests, films/media, Internet PE sites.

CRITERIA FOR EVALUATION AND ASSESSMENT: Written tests, skills tests, quizzes, prepared for class (proper attire), participation, attitude and conduct, effort and improvement.

SIX TRAIT CURRICULUM

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SENTENCE FLUENCY – Smooth writing patterns and rhythmic flow of language.
CONVENTIONS – Using appropriate editing and presentation skills.

Criteria For Evaluation And Assessments:

1. *Write down what sportsmanship is, why it is important, and give examples of good and bad sportsmanship.
   *Include essay question on a test regarding unit studied.
   *Write about an activity or a specific skill.
   *Write about an individual or a team that has a positive effect on you.
2. Use district assessment form to implement Six Traits Writing in the classroom.
3. Put visual aide materials up in the classroom to promote Six Traits.
4. Administer appropriate rubrics and assessments.

MULTICULTURAL EDUCATION

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Criteria For Evaluation And Assessments:

1. A district assessment form is used to document multicultural education in the classroom.
2. An annual status report is provided to the local board of education.

FITNESS ACTIVITIES: INCORPORATED IN UNITS

- Exercises
- Walking
- Jogging
- Physical Testing
- Jump Rope
- Vertical Jumping
- Strength Training
- Coordination and Balance
- Yoga

VOLLEYBALL UNIT

- Rules and Safety
- Bump
- Set
- Spike
- Serve
- Movement
- Strategies
- Games

FLAG FOOTBALL UNIT

- Rules and Safety
- Passing and Catching Skill Drills
- Strategies
- Games
- Ultimate FB-variation

RHYTHMIC DANCE UNIT

- Exercise Videos

SOCCER UNIT

- Rules and Safety
- Ball Control
- Passing
- Catching
- Punting
- Shooting
- Goalie
- Games

TUMBLING UNIT

- Rules and Safety
- Stunt Demonstrations
- Technique
- Practice
- Routines

BASKETBALL UNIT

Rules and Safety
Ball Handling
Shooting: 2's, 3's, Free Throws
Passing
Catching
Screening
Pivot
Movement
Games Progression: 1 on 1, 2 on 2, 3 on 3, 4 on 4, 5 on 5
Chart Contests for Fun
Supplements: 21, Elimination, H-O-R-S-E, Around the World and Ultimate

SOFTBALL UNIT

Rules and Safety
Fielding
Throwing
Catching
Hitting
Beginning Strategies
Games

WHIFFLEBALL UNIT

Rules and Safety
Indoor and Outdoor
Games

FLOOR HOCKEY UNIT

Rules and Safety
Regular or Scooters
Skill Work
Games

FRISBEE GOLF UNIT

Rules and Safety
Catching
Throwing
Techniques
Target Practice
Match Play

ARCHERY UNIT

Safety Rules
Equipment Use
Technique
Target Practice

TENNIS UNIT

- Safety and Equipment
- Beginning Skill Work
- Serve
- Introduce Concepts and Strategy
- Court Positions and Movements
- Basic Racket Strokes
- Singles and Doubles Games

TEAM COOPERATION & INDIVIDUAL FITNESS: FUN FILLERS

- Pinball
- Prison
- Nerf Bombardment
- Relays
- Obstacle Course
- Kick Soccer Baseball
- Football-Basketball-Baseball Game in One
- Badminton Rally Game
- Handball
- Shuffleboard
- Cricket
- Cup-Stacking
- Stations

BOWLING UNIT

- Scoring
- Fundamentals
- Rules

TITLE: **APPLIED HEALTH 9**
GRADE: **9TH -12th**

RESOURCE MATERIALS: Textbook, Workbook, Activity guides, Worksheets and handouts, Videos, DVD's, Filmstrips, posters, and pamphlets.

CRITERIA FOR EVALUATION AND ASSESSMENT: Written assignments, Tests, Quizzes, oral presentations, participation, discussions, group projects, reports and internet research.
Guest Speakers, American Red Cross (CPR), and local Law enforcement personnel.

SIX TRAIT CURRICULUM

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ORGANIZATION- Putting information into an order that shows direction and purpose.
VOICE- Includes the expression of a writer's personality an awareness of the intended audience; and a skillful blend of detail, enthusiasm, and knowledge of the topic.
WORD CHOICE- Selecting, identifying, and revising specific descriptive language.
SENTENCE FLUENCY- Smooth writing patterns and rhythmic flow of language.
CONVENTIONS- Using appropriate editing and presentation skills.

MULTICULTURAL EDUCATION
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COURSE OBJECTIVES:
Students should develop fundamental skills and incorporate previous concepts learned to enhance and build transitional life skills to benefit them throughout their life. Students will obtain knowledge from the three main areas of health (Physical, Mental, and Social) and apply concepts learned into every day living.

I. SOCIAL HEALTH

Relationship skills
Building lasting relationships
Effective communication skills
Non-verbal communication skills
Family relationships
Communication and society
Knowing communication outlets

II. MENTAL HEALTH

Commitment to a healthy lifestyle
Positive attitudes
Developing character, self-discipline, and values
Stress management
Suicide prevention
Mental health diseases and disorders
Depression and treatment procedures
Emotions and healthful expressions of emotions

III. PHYSICAL HEALTH

Growth and development
Care for systems
Understanding personal choices and the effect it has on the 10 body systems

IV. BENEFITS OF PHYSICAL FITNESS

Identify five areas of physical fitness
Discuss physical best, presidential fitness testing and fitness gram
Explain how regular exercise helps lower blood cholesterol and prevent atherosclerosis
Describe ways that exercise helps the heart and lungs
Discuss how regular exercise helps prevent osteoporosis and osteoarthritis
Discuss how regular exercise helps strengthen muscles and explain the danger of using anabolic steroids
Outline a healthful diet for physical fitness
Describe the practice of carbohydrate loading and the use of diuretics
Discuss the role of sleep and rest in physical fitness and explain why rest is important when a person is ill

V. EFFECTS OF PHYSICAL FITNESS

Explain the role of muscular strength in having correct posture and discuss scoliosis
Describe the role of regular exercise in weight management and in reducing the percentage of body fat
Explain how exercise reduces stress through the release of nor epinephrine and beta-endorphins
Explain how regular exercise reduces stress
Explain how regular exercise and physical fitness help reduce the likelihood of heart disease and types of cancers

VI. DESIGNING A PHYSICAL FITNESS PLAN

Describe isotonic, isometric, isokinetic, aerobic, and anaerobic exercises
Explain and use training principles: warming up, cooling down, specificity, overload, progression and frequency
Preventing injury through the use of physical profiling, biomechanics, safety rules, and RICE treatment
Design an individualized physical fitness plan
Identify and describe the fitness skill: agility, balance, coordination, reaction time, speed, and power

VII. ANATOMY OF EYES, EARS, TEETH, SKIN AND HAIR

Understanding the parts of the eye
Understanding the pathway of light and objects through the eye
Understand the part of the ear
Understand the pathway of vibrations through the ear
Understand how sounds are heard and understood
Identify and describe the functions of the parts of the integumentary system
Describe ways to take care of the integumentary system
Identify and describe the functions of the teeth
Describe ways of taking care of teeth
Understand what are cavities and the cause
Understand the purpose of a dentist
Identify and describe the functions of the hair
Describe ways to take care of the hair
Understand problem and ways to care for the scalp and hair

VIII. FACTS ABOUT CHEMICAL DEPENDENCE

Describe the phases of chemical dependence
Describe how different factors determine how drugs will affect a person
Describe reasons why chemical dependence may develop when a person uses drugs
Identify the signs of chemical dependence
Identify safety tips to follow in using prescription and OTC drugs
Practice ways to reduce the intake of caffeine

IX. ILLEGAL DRUGS AND DRUG PREVENTION

Describe how opiates depress the nervous system
Discuss why barbiturates and tranquilizers can cause withdrawal symptoms
Discuss the harmful effects of crack, cocaine, amphetamines, marijuana, LSD, PCP and designer drugs
Identify how students can help a chemically dependent person
Practice behaviors to be drug free

X. OVER THE COUNTER DRUGS (OTC)

Explain factors that influence that effects a drug will have on a person
Identify the information that appears on a prescription drug label
Understand guidelines for the safe use of prescription drugs
Identify the information that appears on an OTC drug label

XI. ALCOHOL PREVENTION

Describe the effects of alcohol on mental, physical, and social health
Use refusal skills for avoiding binging
Identify the signs and stages of alcoholism
Discuss treatment for alcoholism and self-help groups

XII. TOBACCO – FREE

Describe how nicotine, carbon monoxide, and tar are harmful
Discuss how smoking causes heart disease
Discuss the relationships between smoking and many health problems
Describe how lows prohibit tobacco use
Discuss the benefits of not smoking
Describe ways to avoid smoking

XIII. FIRST AID

Discuss child abuse and its causes
Identify and use self-protection strategies to protect against child abuse
Describe examples of sexual harassment and explain how to deal with uncomfortable situations
Describe how to dial the operator and 911 to make an emergency telephone call
Practice using the Heimlich maneuver
Identify the characteristics of different types of wounds and explain how to control bleeding
Discuss the use of artificial respiration and CPR
Participation in the CPR hands on unit for adults and infants

XIV. GETTING YOUR DRIVER'S LICENSE

Discuss the responsibility of driver licensing and insurance
Discuss driving behavior and attitudes
Understand traffic laws
Understand highway safety facts
Understand the causes of traffic crashes
Understand occupant protection
Discuss defensive and perceptive driving
Discuss results of driving under the influence of drugs or alcohol

X. FITNESSGRAM

Participate in developing smart goals
Participate in five test of physical fitness according to the fitnessgram
Evaluate the progress made from 1st semester to 2nd semester according to the goals set by the student and the data collected in the five fitness tests (sit n' reach, trunk lift, pacer, push-ups, and sit-ups)

TITLE: **ADVANCED PHYSICAL EDUCATION**
GRADE: **10^{TH} – 12^{th}**

RESOURCE MATERIALS: Teacher resource guides, PE equipment, written and skills tests, films/media, Internet PE sites.

CRITERIA FOR EVALUATION AND ASSESSMENT: Written tests, skills tests, quizzes, prepared for class (proper attire), participation, attitude and conduct, effort and improvement.

SIX TRAIT CURRICULUM

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WORD CHOICE – Selecting, identifying, and revising specific descriptive language.
SENTENCE FLUENCY – Smooth writing patterns and rhythmic flow of language.
CONVENTIONS – Using appropriate editing and presentation skills.

Criteria For Evaluation And Assessments:

1. *Write down what sportsmanship is, why it is important, and give examples of good and bad sportsmanship.
   *Include essay question on a test regarding unit studied.
   *Write about an activity or a specific skill.
   *Write about an individual or a team that has a positive effect on you.
2. Use district assessment form to implement Six Traits Writing in the classroom.
3. Put visual aide materials up in the classroom to promote Six Traits.
4. Administer appropriate rubrics and assessments.

MULTICULTURAL EDUCATION

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Criteria For Evaluation And Assessments:

1. A district assessment form is used to document multicultural education in the classroom.
2. An annual status report is provided to the local board of education.

FITNESS ACTIVITIES: INCORPORATED IN UNITS

- Exercises
- Walking
- Jogging
- Physical Testing
- Jump Rope
- Vertical Jumping
- Strength Training
- Coordination and Balance
- Yoga

VOLLEYBALL UNIT

- Rules and Safety
- Bump
- Set
- Spike
- Serve
- Movement
- Strategies
- Games
- Skills and Written Tests

FLAG FOOTBALL UNIT

- Rules and Safety
- Strategies
- Games
- Ultimate FB-variation
- Written Test

RHYTHMIC DANCE UNIT

- Aerobic Dance

SOCCER UNIT

- Rules and Safety
- Games

BASKETBALL UNIT

- Rules and Safety
- Shooting: 2's, 3's, Free Throws
- Chart Contests for Fun
- Games
- Written Exam
- Supplements: 21, Elimination, H-O-R-S-E
- Double Iowa and Ultimate

SOFTBALL UNIT

- Rules and Safety
- Advanced Strategies
- Games
- Written Test

WHIFFLEBALL UNIT

- Rules and Safety
- Indoor and Outdoor
- Games

FLOOR HOCKEY UNIT

- Rules and Safety
- Regular or Scooters
- Games

FRISBEE GOLF UNIT

- Rules and Safety
- Match Play

ARCHERY UNIT

- Safety Rules
- Equipment Use
- Equipment Checks
- Technique
- Target Practice
- Skills and Written Tests
- Fun Tournaments
- Use Buddy System For Safety and Technique

TENNIS UNIT

- Safety and Equipment
- Skill Work
- Serving Practice
- Advanced Strategy
- Court Positions and Movements
- Racket Strokes
- Singles and Doubles Games
- Fun Tourneys Singles and Doubles
- Terminology Lingo Test
- Written and Skills Test

BOWLING UNIT

- Rules and Etiquette
- Scoring
- Terminology
- Techniques
- Written Test

CROQUET UNIT

- Rules
- Games

BADMINTON UNIT

- Rules
- Games

GOLF UNIT

- Rules
- Techniques
- Driving
- Putting
- Short Game
- Practice Rounds

TABLE TENNIS UNIT

- Rules
- Games

LACROSSE UNIT

- Rules
- Safety
- Technique
- Strategy

TEAM COOPERATION & INDIVIDUAL FITNESS: FUN FILLERS

- Prison
- Nerf Bombardment
- Kick Soccer Baseball
- Football-Basketball-Baseball Game in One
- Badminton Rally Game
- Handball
- Cricket
- Shuffleboard
- Horseshoes
- Stations
- Cup stacking

TITLE: **STRENGTH TRAINING**
GRADE: **9TH – 12th**

RESOURCE MATERIALS: Teacher resource guides, weight-lifting equipment, testing and assessment equipment, conditioning equipment, films/media/internet sites, written, skills, and fitness testing.

CRITERIA FOR EVALUATION AND ASSESSMENT: Written assignments, skills tests, safety quizzes, prepared for class (proper attire), participation, attitude and conduct, effort and improvement, completion of daily workout. Proper lifting techniques and work ethic, as observed by the instructor and improvement demonstrated in quarterly max charts.

SIX TRAIT CURRICULUM

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WORD CHOICE – Selecting, identifying, and revising specific descriptive language.
SENTENCE FLUENCY – Smooth writing patterns and rhythmic flow of language.
CONVENTIONS – Using appropriate editing and presentation skills.

Criteria For Evaluation And Assessments:

1. *Write about the value of conditioning and fitness.
   *Research and summarize and article on a specific strength and conditioning topic.
   *Write one-half page on safety and using the buddy system when lifting.
   *Complete a one-week workout schedule and write about the value of each daily activity.
2. Use district assessment form to implement Six Traits Writing in the classroom.
3. Put visual aide materials up in the classroom to promote Six Traits.
4. Administer appropriate rubrics and assessments.

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STRENGTH TRAINING

Core Lifts

Bench	Push Press
Incline	Push Jerk
Military	Power Row
Squat	
Hang Clean	
Lunges	
Hip Sled/Leg Press	
Jammer	

Supplements

Hang Snatch	Snatch From Hip
Upright Row	Upright Row
Snatch	Squat
Bent Over Row	Bent Over Row
Snatch Grip High Pull	Snatch From Floor
Upright Row	
Frontal Raise	
Lateral Raise	
Bent Over Raise	

CONDITIONING

Tests and Measurements

- 10 yard dash
- 40 yard dash
- Mile Run
- Pro Agility
- Vertical Jump
- Flexibility
- Broad Jump

Individual Stretching
Partner Stretching
PNF Stretching
Body Resistance: Push-ups, Sit-ups
Jumping Rope
Jumping Drills
4 Corners Agility
Jogging-Endurance Training
Plyometrics (Box Jumps)
Agility and Speed Drills
Form Running
Body Control Activities
Footwork: Line Jumps, Dot Drills
Apply in Game Activities for Fun and Exercise

TITLE: INFORMATION TECHNOLOGY APPLICATIONS
GRADE: 9TH – 12TH

RESOURCE MATERIALS: Textbook: Microsoft Office 2013: Introductory (Misty E. Vermaat). Copyright 2014, six trait writing. Ipad along with various "apps" related to: business, productivity, word processing, spreadsheets, and presentations.

COURSE DESCRIPTION:
This course provides an overview of microcomputer applications including: Microsoft Office 2013 (Word, Excel, Access, and PowerPoint). No experience with a computer is assumed, and no mathematics beyond the high school freshman level is required. Course objectives include:

- Teach the fundamentals of Microsoft Office 2013
- Expose students to practical examples of the computer as a useful tool
- Acquaint students with the proper procedures to create documents (word processing, formatting, and proper letter, memo, and resume formats), presentations, worksheets, and databases suitable for coursework, professional purposes, and personal use.
- Help students discover the underlying functionality of Office 2013 so they can become more productive
- To develop an exercise-oriented approach that allows learning by doing

In addition, students will also do various Internet activities throughout the semester. IPads will also be taught and used (Pages, Keynote, QuickOffice, Edmodo, and various others).

CRITERIA FOR EVALUATION AND ASSESMENT: Textbook reading, participation, practice exercises, vocabulary quizzes, group and individual applications/activities, multiple rubrics, tests.

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WORD CHOICE: Selecting, identifying and revising specific descriptive language.
SENTENCE FLUENCY: Smooth writing patterns and rhythmic flow of language.
CONVENTIONS: Using appropriate editing and presentation skills.

Criteria for Evaluation and Assessments:

1. Use district assessment form to implement six traits writing.
2. Put visual aide materials up in the classroom to promote the six traits.
3. Administer appropriate rubrics and assessments.

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Criteria for Evaluation and Assessment:

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BUSINESS EDUCATION ESSENTIAL LEARNINGS:

12.4.0 COMMUNICATIONS

Students will understand principles of effective communication. They will demonstrate competency by selecting and using appropriate forms of communication while working individually and in groups.

Instructional content leading to the mastery of the performance standard should include, but is not limited to:

12.4.1 Communications present a positive image through verbal and nonverbal communications
12.4.2 Correspondence – compose, format, and edit correspondence
12.4.3 International Communications – develop an awareness of the language and varying customs required for international communications.
12.4.4 Listening – demonstrate active listening
12.4.5 Pluralist Communications – demonstrate sensitivity toward and appreciation for a diverse population
12.4.6 Presentations – research, compose, and orally present information for a variety of situations utilizing appropriate technology.
12.4.7 Proofreading – edit and correct text for grammatical/spelling errors not indentified through spell/grammar checking software programs.
12.4.8 Technical Reading – understand the content of technical reading material by following direction or accurately interpreting data
12.4.9 Technical Writing – write instructions for technical procedures
12.4.10 Technology – use appropriate forms of technology for communications.

12.13.0 SYSTEMS AND IMPLEMENTATION

Students will understand the factors contributing to a productive workforce in a pluralist, technologically orientated environment. They will demonstrate competency by creating, developing, and producing information as an individual or a team member.

Instructional content leading to mastery of the performance standard should include, but is not limited to:

12.13.1 Management Skills – prioritize work to fulfill responsibilities, to meet deadlines, and to utilize negotiation skills
12.13.2 Occupational Safety – demonstrate safety practices to maintain a safe and secure technological work environment
12.13.3 Records Management – classify, store, retrieve, archive, and purge paper and computer-based records.
12.13.4 Teamwork – demonstrate the ability to work with others in a diverse and global environment.
12.13.5 Work Environment – design and organize an ergonomically correct work environment that maximizes productivity while considering human needs, budgetary guidelines, equipment, and supplies.

12.13.6 Work Ethics – demonstrate positive work habits and strive to achieve personal job satisfaction.

BE 12.14.1 COMPUTER APPLICATIONS (Business Education standard)
Students will understand a variety of application software. They will demonstrate competency by utilizing appropriate software for specific tasks.

- Advanced Features – use advanced features (graph, merge, sort, filter, link, embed) of common applications software
- Application Software – use application software (word processing, desktop publishing, spreadsheet, database, presentation)
- Career Identification – discuss common tasks, career paths and educational requirements in the areas of word processing, spreadsheet, database, desktop publishing, presentation and electronic communication
- Certification – demonstrate proficiency of application software through industry certifications
- Collaborative Features – use collaborative features (document sharing, whiteboard, web conferencing) of software applications to complete tasks
- Ethics – examine and adhere to acceptable uses of computer application software and hardware
- Legal Issues – discuss federal and state laws pertaining to computer use (computer crime and abuse, copyright infringement, plagiarism)
- Policies – follow safety and security policies (acceptable use policy, web page policy, student information policy)
- Problem-Solving Techniques – diagnose, evaluate and identify the use of software to solve specific problems
- Reference Materials – use application reference materials (online help, vendor sites, tutorials, manuals) to complete tasks or solve problems
- Technology Research – use effective online information resources to support research

LINKS TO STATE STANDARDS

<u>Reading/Speaking/Listening</u>

12.1.1 Students will identify the main ideas and supporting details in what they have read.
12.1.2 Students will locate, evaluate, and use primary and secondary resources for research.
12.1.6 Students will identify and apply knowledge of the text structure and organizational elements to analyze non-fiction or informational text.
12.2.1 Students will write using standard English (conventions) for sentence structure, usage, punctuation, capitalization, and spelling.
12.2.4 Students will use multiple forms to write for different audiences and purposes.
12.2.5 Students will demonstrate the ability to use self-generated questions, note taking, summarizing, and outlining while learning.
12.3.1 Students will participate in student directed discussions by eliciting questions and responses.
12.3.2 Students will make oral presentations that demonstrate consideration of audience, purpose, and information.

Mathematics

12.2.1 Students will solve theoretical and applied problems using numbers in equivalent forms, radicals, exponents, scientific notation, absolute values, fractions, decimals, and percents, ratios and proportions, order of operations, and properties of real numbers

12.6.4 Students will solve problems using patterns and functions.

CHAPTERS INCLUDED IN THE TEXT
Introduction to Technology

Microsoft Office 2013 and Windows 8

Office 2013 and Windows 8: Essential Concepts and Skills

Microsoft Office 365

Office 365 Essentials

Microsoft Word 2013

Ch. 1-Creating, Formatting, and Editing a Word Document with a Picture
Ch. 2-Creating a Research Paper with References and Sources
Ch. 3-Creating a Business Letter with a Letterhead and Table

Microsoft PowerPoint 2013

Ch. 1-Creating and Editing a Presentation with Pictures
Ch. 2-Enhancing a Presentation with Pictures, Shapes, and WordArt
Ch. 3-Reusing a Presentation and Adding Media and Animation

Microsoft Excel 2013

Ch. 1-Creating a Worksheet and a Chart
Ch. 2-Formulas, Functions, and Formatting
Ch. 3-Working with Large Worksheets, Charting, and What-If Analysis

Microsoft Access 2013

Ch. 1-Databases and Database Objects: An Introduction
Ch. 2-Querying a Database
Ch. 3-Maintaining a Database

Microsoft Outlook 2013

Ch. 1-Managing Email Messages with Outlook
Ch. 2-Managing Calendars with Outlook

Capstone Projects

1. Hammonds County Dog Park
2. SKL Music Therapy Associates
3. Cloud and Web Technologies

TITLE: **ACCOUNTING**
GRADE: **10TH-12TH**

RESOURCES MATERIALS: Textbook: Century 21 Accounting 9th Edition (first year), online working papers (www.aplia.com), six trait writing

CRITERIA FOR EVALUATION AND ASSESSMENT: Online "work together" and "on your own" exercises, applications and mastery problems, reinforcement activities, study guides, tests, class participation, online learning tools (including: instructional games, reviews, interactive spreadsheets, and electronic flash cards).

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WORD CHOICE- Selecting, identifying and revising specific descriptive language.
SENTENCE FLUENCY – Smooth writing patterns and rhythmic flow of language.
CONVENTIONS- Using appropriate editing and presentation skills.

Criteria For Evaluation And Assessments:

1. Use district assessment form to implement six traits writing.
2. Put visual aide materials up in the classroom to promote the six traits.
3. Administer appropriate rubrics and assessments.

MULTICULTURAL EDUCATION
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Criteria For Evaluation and Assessments:

1. A district assessment form is used to document multicultural education in the classroom.
2. An annual status report is provided to the local board of education

BUSINESS EDUCATION ESSENTIAL LEARNINGS:
12.4.0 COMMUNICATIONS
Students will understand principles of effective communication. They will demonstrate competency by selecting competency by selecting and using appropriate forms of communication while working individually and in groups.

Instructional content leading to mastery of the performance standard should include but is not limited to:

12.4.1 Communications present a positive image through verbal and nonverbal communications

12.4.2 Correspondence—compose, format, and edit correspondence
12.4.3 International Communications—develop an awareness of the language and varying customs required for international communications
12.4.4 Listening—demonstrate active listening
12.4.5 Pluralist Communications—demonstrate sensitivity toward and appreciation for a diverse population
12.4.6 Presentations—research, compose, and orally present information for a variety of situations utilizing appropriate technology
12.4.7 Proofreading—edit and correct text for grammatical/spelling errors not identified through spell/grammar checking software programs
12.4.8 Technical Reading—understand the content of technical reading material by following direction or accurately interpreting data
12.4.9 Technical Writing—write instructions for technical procedures
12.4.10 Technology—use appropriate forms of technology for communications

12.13.0 SYSTEMS AND IMPLEMENTATION

Students will understand the factors contributing to a productive workforce in a pluralist, technologically orientated environment. They will demonstrate competency by creating, developing, and producing information as an individual or a team member.

Instructional content leading to mastery of the performance standard should include but is not limited to:

12.13.1 Management Skills—prioritize work to fulfill responsibilities, to meet deadlines, and to utilize negotiation skills
12.13.2 Occupational Safety—demonstrate safety practices to maintain a safe and secure technological work environment
12.13.3 Records Management—classify, store, retrieve, archive, and purge paper and computer-based records
12.13.4 Teamwork—demonstrate the ability to work with others in a diverse and global environment
12.13.5 Work Environment—design and organize an ergonomically correct work environment that maximizes productivity while considering human needs, budgetary guidelines, equipment, and supplies
12.13.6 Work Ethics—demonstrate positive work habits and strive to achieve personal job satisfaction

12.14.0 ACCOUNTING PRINCIPLES

Students will understand accounting principles and procedures. They will demonstrate competency by preparing, maintaining, and interpreting accounting records.

Instructional content leading to mastery of the performance standard should include but is not limited to:

12.14.1 Accounting Cycle—apply the accounting cycle to various forms of business organizations
12.14.2 Analysis—demonstrate the interpretation of financial statements for personal and business decisions
12.14.3 Automated Accounting Systems—use technology to prepare and maintain accounting records
12.14.4 Employment Opportunities—identify career opportunities available in the field of accounting
12.14.5 Financial Computations—use mathematical concepts to compute financial transactions

12.14.6 Internal Control—explain the principles of checks and balances as they relate to various accounting systems
12.14.7 Payroll—apply payroll theory and procedures
12.14.8 Planning and Management—demonstrate accounting procedures and practices related to inventory control, budgetary planning, and financial statement analysis

SECTIONS/CHAPTERS INCLUDED IN TEXT

Accounting for a Service Business Organized as a Proprietorship

Starting a Proprietorship: Changes that Affect the Accounting Equation
Analyzing Transactions Into Debit and Credit Parts
Journalizing Transactions
Posting to a General Ledger
Cash Control Systems
Work Sheet for a Service Business
Financial Statements for a Proprietorship
Recording Adjusting and Closing Entries for a Service Business

Accounting for a Merchandising Business Organized as a Corporation

Journalizing Purchases and Cash Payments
Journalizing Sales and Cash Receipts Using Special Journals
Posting to General and Subsidiary Ledgers
Preparing Payroll Records
Payroll Accounting, Taxes, and Reports
Work Sheet for a Merchandising Business
Financial Statements for a Corporation
Recording Adjusting and Closing Entries for a Corporation

Accounting for a Merchandising Business Organized as a Corporation-Adjustments and Valuations

Accounting for Uncollectible Accounts Receivable
Accounting for Plant Assets and Depreciation
Accounting for Inventory
Accounting for Notes and Interest
Accounting for Accrued Revenue and Expenses
End-of-Fiscal-Period Work for a Corporation

Additional Accounting Procedures

Accounting for Partnerships
Recording International and Internet Sales

Appendices

Appendix A: Statement of Cash Flows
Appendix B: Best Buy's Annual Report
Appendix C: Using a Calculator and Computer Keypad
Appendix D: Recycling Problems
Appendix E: Answers to Audit Your Understanding

TITLE: **ADVANCED ACCOUNTING**
GRADE: **11TH-12TH**

RESOURCES MATERIALS: Textbook: Century 21 Accounting Advanced 9th Edition, online working papers (www.aplia.com), six trait writing.

CRITERIA FOR EVALUATION AND ASSESSMENT: Online working papers, which include: work together and on your own exercises, workbook applications and mastery problems, reinforcement activities, study guides, tests, class participation, simulation packet.

SIX TRAIT CURRICULUM

The Johnson County Central Public School District endorses and implements the Six Traits model of writing instructions and assessment. It is an ongoing expectation that all faculty members will implement this mode of language instruction in their classroom.

IDEAS- The writer's primary message, point of story, showing details and clarity.
ORGANIZATION- Putting in formation into an order that shows direction and purpose.
VOICE- Includes the expression of a writer's personality; an awareness of the intended audience: and a skillful blend of detail, enthusiasm, and knowledge of the topic.
WORD CHOICE- Selecting, identifying and revising specific descriptive language.
SENTENCE FLUENCY – Smooth writing patterns and rhythmic flow of language.
CONVENTIONS- Using appropriate editing and presentation skills.

Criteria For Evaluation And Assessments:

1. Use district assessment form to implement six traits writing.
2. Put visual aide materials up in the classroom to promote the six traits.
3. Administer appropriate rubrics and assessments.

MULTICULTURAL EDUCATION

The instructional program at Johnson County Central Public Schools incorporates multicultural education in all curriculum areas at all grades. Multicultural education includes, but is not limited to studies relative to the culture, history, and contribution African Americans, Hispanic Americans, Native Americans, Asian Americans, and European Americans with special emphasis on human relations and sensitivity toward all races.

Criteria For Evaluation and Assessments:

1. A district assessment form is used to document multicultural education in the classroom.
2. An annual status report is provided to the local board of education

BUSINESS EDUCATION ESSENTIAL LEARNINGS:
12.4.0 COMMUNICATIONS
Students will understand principles of effective communication. They will demonstrate competency by selecting competency by selecting and using appropriate forms of communication while working individually and in groups.

Instructional content leading to mastery of the performance standard should include but is not limited to:

12.4.1 Communications present a positive image through verbal and nonverbal communications

12.4.2 Correspondence—compose, format, and edit correspondence
12.4.3 International Communications—develop an awareness of the language and varying customs required for international communications
12.4.4 Listening—demonstrate active listening
12.4.5 Pluralist Communications—demonstrate sensitivity toward and appreciation for a diverse population
12.4.6 Presentations—research, compose, and orally present information for a variety of situations utilizing appropriate technology
12.4.7 Proofreading—edit and correct text for grammatical/spelling errors not identified through spell/grammar checking software programs
12.4.8 Technical Reading—understand the content of technical reading material by following direction or accurately interpreting data
12.4.9 Technical Writing—write instructions for technical procedures
12.4.10 Technology—use appropriate forms of technology for communications

12.13.0 SYSTEMS AND IMPLEMENTATION

Students will understand the factors contributing to a productive workforce in a pluralist, technologically orientated environment. They will demonstrate competency by creating, developing, and producing information as an individual or a team member.

Instructional content leading to mastery of the performance standard should include but is not limited to:

12.13.1 Management Skills—prioritize work to fulfill responsibilities, to meet deadlines, and to utilize negotiation skills
12.13.2 Occupational Safety—demonstrate safety practices to maintain a safe and secure technological work environment
12.13.3 Records Management—classify, store, retrieve, archive, and purge paper and computer-based records
12.13.4 Teamwork—demonstrate the ability to work with others in a diverse and global environment
12.13.5 Work Environment—design and organize an ergonomically correct work environment that maximizes productivity while considering human needs, budgetary guidelines, equipment, and supplies
12.13.6 Work Ethics—demonstrate positive work habits and strive to achieve personal job satisfaction

12.13.0 ACCOUNTING PRINCIPLES

Students will understand accounting principles and procedures. They will demonstrate competency by preparing, maintaining, and interpreting accounting records.

Instructional content leading to mastery of the performance standard should include but is not limited to:

12.13.1 Accounting Cycle—apply the accounting cycle to various forms of business organizations
12.13.2 Analysis—demonstrate the interpretation of financial statements for personal and business decisions
12.13.3 Automated Accounting Systems—use technology to prepare and maintain accounting records
12.13.4 Employment Opportunities—identify career opportunities available in the field of accounting
12.13.5 Financial Computations—use mathematical concepts to compute financial transactions

12.13.6 Internal Control—explain the principles of checks and balances as they relate to various accounting systems
12.13.7 Payroll—apply payroll theory and procedures
12.13.8 Planning and Management—demonstrate accounting procedures and practices related to inventory control, budgetary planning, and financial statement analysis

SECTIONS/CHAPTERS INCLUDED IN TEXT

Departmentalized Accounting
Recording Departmental Purchases and Cash Payments
Recording Departmental Sales and Cash Receipts
Calculating and Recording Departmental Payroll Data
Financial Reporting for a Departmentalized Business

Accounting Adjustments and Valuation
A Voucher System
Inventory Planning and Valuation

General Accounting Adjustments
Accounting for Uncollectible Accounts
Accounting for Plant Assets
Accounting for Notes Payable, Prepaid Expenses, and Accrued Expenses
Accounting for Notes Receivable, Unearned Revenue, and Accrued Revenue

Corporation Accounting
Organizing a Corporation and Paying Dividends
Acquiring Additional Capital for a Corporation
Financial Analysis and Reporting for a Corporation

Management Accounting
Budgetary Planning and Control
Management Decisions Using Cost-Volume Profit Analysis
Management Decisions Using Present Value Analysis
Financial Statement Analysis
Statement of Cash Flows

Manufacturing Cost Accounting
Cost Accounting for a Merchandising Business
Accounting Transaction and Financial Reporting for a Manufacturing Business

Other Accounting Systems
Organizational Structure of a Partnership
Financial Reporting for a Partnership
Budgeting and Accounting for a Not-for-Profit Organization
Financial Reporting for a Not-for-Profit Organization

Appendices
Appendix A – Accounting Concepts
Appendix B – Costco's Financial Statements
Appendix C – Recycling Problems
Appendix D – Recycling Problems
Appendix E – Answers to Audit Your Understanding

TITLE: **MANAGEMENT**
GRADE: **9^{TH}-12^{TH}**

RESOURCES MATERIALS: Textbook: Business Principles and Management, workbook, six trait writing. H&R Block's Virtual Business-Sports & Entertainment Curriculum (Computer Simulation).

CRITERIA FOR EVALUATION AND ASSESSMENT: Chapter Questions, workbook pages, class participation, discussions, online quizzes and study guides, tests.

SIX TRAIT CURRICULUM

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ORGANIZATION- Putting in formation into an order that shows direction and purpose.
VOICE- Includes the expression of a writer's personality; an awareness of the intended audience: and a skillful blend of detail, enthusiasm, and knowledge of the topic.
WORD CHOICE- Selecting, identifying and revising specific descriptive language.
SENTENCE FLUENCY – Smooth writing patterns and rhythmic flow of language.
CONVENTIONS- Using appropriate editing and presentation skills.

Criteria For Evaluation And Assessments:

1. Use district assessment form to implement six traits writing.
2. Put visual aide materials up in the classroom to promote the six traits.
3. Administer appropriate rubrics and assessments.

MULTICULTURAL EDUCATION

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Criteria For Evaluation and Assessments:

1. A district assessment form is used to document multicultural education in the classroom.
2. An annual status report is provided to the local board of education

BUSINESS EDUCATION ESSENTIAL LEARNINGS:
12.4.0 COMMUNICATIONS
Students will understand principles of effective communication. They will demonstrate competency by selecting competency by selecting and using appropriate forms of communication while working individually and in groups.

Instructional content leading to mastery of the performance standard should include but is not limited to:

12.4.1 Communications present a positive image through verbal and nonverbal communications

12.4.2 Correspondence—compose, format, and edit correspondence
12.4.3 International Communications—develop an awareness of the language and varying customs required for international communications
12.4.4 Listening—demonstrate active listening
12.4.5 Pluralist Communications—demonstrate sensitivity toward and appreciation for a diverse population
12.4.6 Presentations—research, compose, and orally present information for a variety of situations utilizing appropriate technology
12.4.7 Proofreading—edit and correct text for grammatical/spelling errors not identified through spell/grammar checking software programs
12.4.8 Technical Reading—understand the content of technical reading material by following direction or accurately interpreting data
12.4.9 Technical Writing—write instructions for technical procedures
12.4.10 Technology—use appropriate forms of technology for communications

12.13.0 SYSTEMS AND IMPLEMENTATION

Students will understand the factors contributing to a productive workforce in a pluralist, technologically orientated environment. They will demonstrate competency by creating, developing, and producing information as an individual or a team member.

Instructional content leading to mastery of the performance standard should include but is not limited to:

12.13.1 Management Skills—prioritize work to fulfill responsibilities, to meet deadlines, and to utilize negotiation skills
12.13.2 Occupational Safety—demonstrate safety practices to maintain a safe and secure technological work environment
12.13.3 Records Management—classify, store, retrieve, archive, and purge paper and computer-based records
12.13.4 Teamwork—demonstrate the ability to work with others in a diverse and global environment
12.13.5 Work Environment—design and organize an ergonomically correct work environment that maximizes productivity while considering human needs, budgetary guidelines, equipment, and supplies
12.13.6 Work Ethics—demonstrate positive work habits and strive to achieve personal job satisfaction

12.18.0 MANAGEMENT

Students will understand the principles of managing a business. They will demonstrate competency by describing and applying management functions, principles, and process that contribute to the achievement of organizational goals.

Instructional content leading to mastery of the performance standard should include but is not limited to:

12.18.1 Basic Management Functions—practice the five management functions: planning, organizing, directing, staffing, and controlling
12.18.2 Change Theory—analyze how economic, technological, and social changes affect employer and employee responsibilities
12.18.3 Employment Opportunities—Identify career opportunities available in the field of management
12.18.4 Human resources Development and Management—research methods that an organizations can use to manage a pluralistic workforce

12.18.5 Managerial Characteristics—demonstrate management skills including compromise, team building, consensus building, time management, and flexibility
12.18.6 Managerial Ethics—discuss managerial situations presenting ethical dilemmas
12.18.7 Management Information Systems—analyze the impact of management information systems and use technological applications
12.18.8 Management Styles—compare management styles and how they affect productivity
12.18.9 Operations and Compliance—explore operating policies and procedures that address government regulations

LINKS TO STANDARDS

Reading/Speaking/Listening:
12.1.1 Students will identify the main ideas and supporting details in what they have read.
12.1.2 Students will locate, evaluate, and use primary and secondary resources for research.
12.1.6 Students will identify and apply knowledge of the text structure and organizational elements to analyze non-fiction or informational text.
12.1.8 Students will demonstrate the ability to analyze literary works, nonfiction, films, and media.
12.2.1 Students will write using standard English (conventions) for sentence structure, usage punctuation, capitalization, and spelling.
12.2.2 Students will write compositions with focus, related ideas, and supporting details.
12.2.4 Students will use multiple forms to write for different audiences and purposes.
12.2.5 Students will demonstrate the ability to use self-generated questions, note taking, summarizing, and outlining while learning.
12.3.1 Students will participate in student directed discussions by eliciting questions and responses.
12.3.2 Students will make oral presentations that demonstrate consideration of audience, purpose, and information.

Mathematics:
12.4.7 Students will apply deductive reasoning to arrive at a conclusion.
12.5.1 Students will select a sampling technique to gather data, analyze the resulting data and make inferences.

Science:
12.1.1 Develop an understanding of systems, order, and organization.

Social Studies/History:
12.3.11 Analyze characteristics of the United States free market economy.
12.3.12 Analyze the role of the national, state, and local government in the United States economy.
12.3.13 Examine the basic economic indicators and fundamentals of international trade.
12.4.4 Analyze the patterns of urban development, such as site and situation; the function of towns and cities; and problems related to human mobility, social structure, and the environment.

MANAGEMENT UNITS/CHAPTERS INCLUDED IN TEXT

BUSINESS AND ITS ENVIRONMENT
Characteristics of business
Social and ethical environments of business
Economic environment of business

International environment of business

FORMS OF BUSINESS OWNERSHIP AND LAW

Proprietorship and partnership
Corporate forms of business ownership
Legal aspects of business

INFORMATION AND COMMUNICATION SYSTEMS

Technology and information management
E-Commerce
Organizational communication

MANAGEMENT RESPONSIBILITIES

Management functions and decisions making
The manager as leader
Planning and organizing
Implementing and controlling

FINANCIAL MANAGEMENT

Business Financial records
Financing a business
Financial services
Credit and Insurance

PRODUCTION AND MARKETING MANAGEMENT

Product Planning and Production Management
Nature and scope of marketing
Product Development and Distribution
Pricing and Promotion

HUMAN RESOURCE MANAGEMENT

Managing Human resources
Rewarding and developing employees
Developing an effective organization

TITLE: **MARKETING**
GRADE: **10^{TH}-12^{TH}**

RESOURCES MATERIALS: Textbook: Marketing, study guides (workbook), six trait writing. H&R Block's Business-Sports & Entertainment Curriculum (Computer Simulation)

CRITERIA FOR EVALUATION AND ASSESSMENT: Workbook pages, class participation, discussions, quizzes, tests.

SIX TRAIT CURRICULUM

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WORD CHOICE- Selecting, identifying and revising specific descriptive language.
SENTENCE FLUENCY – Smooth writing patterns and rhythmic flow of language.
CONVENTIONS- Using appropriate editing and presentation skills.

Criteria For Evaluation And Assessments:

1. Use district assessment form to implement six traits writing.
2. Put visual aide materials up in the classroom to promote the six traits.
3. Administer appropriate rubrics and assessments.

MULTICULTURAL EDUCATION

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Criteria For Evaluation and Assessments:

1. A district assessment form is used to document multicultural education in the classroom.
2. An annual status report is provided to the local board of education

BUSINESS EDUCATION ESSENTIAL LEARNINGS:
12.4.0 COMMUNICATIONS
Students will understand principles of effective communication. They will demonstrate competency by selecting competency by selecting and using appropriate forms of communication while working individually and in groups.

Instructional content leading to mastery of the performance standard should include but is not limited to:

12.4.1 Communications present a positive image through verbal and nonverbal communications
12.4.2 Correspondence—compose, format, and edit correspondence

12.4.3 International Communications—develop an awareness of the language and varying customs required for international communications
12.4.4 Listening—demonstrate active listening
12.4.5 Pluralist Communications—demonstrate sensitivity toward and appreciation for a diverse population
12.4.6 Presentations—research, compose, and orally present information for a variety of situations utilizing appropriate technology
12.4.7 Proofreading—edit and correct text for grammatical/spelling errors not identified through spell/grammar checking software programs
12.4.8 Technical Reading—understand the content of technical reading material by following direction or accurately interpreting data
12.4.9 Technical Writing—write instructions for technical procedures
12.4.10 Technology—use appropriate forms of technology for communications

12.13.0 SYSTEMS AND IMPLEMENTATION

Students will understand the factors contributing to a productive workforce in a pluralist, technologically orientated environment. They will demonstrate competency by creating, developing, and producing information as an individual or a team member.

Instructional content leading to mastery of the performance standard should include but is not limited to:

12.13.1 Management Skills—prioritize work to fulfill responsibilities, to meet deadlines, and to utilize negotiation skills
12.13.2 Occupational Safety—demonstrate safety practices to maintain a safe and secure technological work environment
12.13.3 Records Management—classify, store, retrieve, archive, and purge paper and computer-based records
12.13.4 Teamwork—demonstrate the ability to work with others in a diverse and global environment
12.13.5 Work Environment—design and organize an ergonomically correct work environment that maximizes productivity while considering human needs, budgetary guidelines, equipment, and supplies
12.13.6 Work Ethics—demonstrate positive work habits and strive to achieve personal job satisfaction

12.19.0 MARKETING

Students will develop an understanding and appreciation of the marketing concepts and its application in the business world. They will demonstrate competency by applying marketing knowledge to a variety of business situations.

Instructional content leading to mastery of the performance standard should include but is not limited to:

12.19.1 Employment Opportunities—discuss the importance of marketing careers in a free enterprise economy and identify opportunities in the field of marketing
12.19.2 Marketing Information Management—describe the nature and scope of marketing information management, emphasizing the importance of market research.
12.19.3 Marketing Mix—apply the basic elements of the marketing mix (product/service planning, place, price and promotion) to business situations
12.19.4 Profit Motive—describe the importance of physical distribution, inventory control, financial controls and risk management in making money in a business environment
12.19.5 Promotional Strategies—discuss the role and importance of advertising, publicity, sales promotion, and personal selling in a business environment

12.19.6 Purchasing—describe the primary purposes of purchasing and their relationship to the marketing mix and profitability

LINKS TO STANDARDS

Reading/Speaking/Listening:

12.1.1 Students will identify the main ideas and supporting details in what they have read.
12.1.2 Students will locate, evaluate, and use primary and secondary resources for research.
12.1.6 Students will identify and apply knowledge of the text structure and organizational elements to analyze non-fiction or informational text.
12.1.8 Students will demonstrate the ability to analyze literary works, nonfiction, films, and media.
12.2.1 Students will write using standard English (conventions) for sentence structure, usage punctuation, capitalization, and spelling.
12.2.2 Students will write compositions with focus, related ideas, and supporting details.
12.2.4 Students will use multiple forms to write for different audiences and purposes.
12.2.5 Students will demonstrate the ability to use self-generated questions, note taking, summarizing, and outlining while learning.
12.3.1 Students will participate in student directed discussions by eliciting questions and responses.
12.3.2 Students will make oral presentations that demonstrate consideration of audience, purpose, and information.

Mathematics:

12.2.3 Students will perform estimations and computations of real numbers mentally, with paper and pencil, and with technology.
12.5.1 Students will select a sampling technique to gather data, analyze the resulting data and make inferences.
12.6.3 Students will solve problems involving systems of two equations, and systems of two or more inequalities.

Science:

12.1.1 Develop an understanding of systems, order, and organization.
12.1.2 Develop and understanding of evidence, models, and explanation.

Social Studies/History:

12.3.11 Analyze characteristics of the United States free market economy.
12.3.12 Analyze the role of the national, state, and local government in the United States economy.
12.3.13 Examine the basic economic indicators and fundamentals of international trade.
12.4.4 Analyze the patterns of urban development, such as site and situation; the function of towns and cities; and problems related to human mobility, social structure, and the environment.

MARKETING CHAPTER INCLUDED IN TEXT

MARKETING

Marketing today
Marketing impacts society
Marketing begins with economics
Basics of marketing
Using marketing research

Marketing begins with customers
Competition is everywhere
Marketing for e-commerce
Marketing strategy
Develop a new product
Services need marketing
Products for resale
Get the products to the customers
Determine the best price
Promotion means effective communication
Be creative with advertising
Selling satisfies the customer
Moving into a global economy
Managing risks
Marketing requires money
What is entrepreneurship
Take control with management
Careers in marketing

TITLE: **BUSINESS LAW**
GRADE: **10^{TH}-12^{TH}**

RESOURCES MATERIALS: Textbook: Law for Business and Personal Use, workbook, six trait writing. Ipads and various "apps" related to: business, business law, productivity, word processing, and presentations.

CRITERIA FOR EVALUATION AND ASSESSMENT: Chapter questions, workbook pages, class participation, discussions, debates, online study guides and quizzes, written quizzes, tests.

SIX TRAIT CURRICULUM

The Johnson County Central Public School District endorses and implements the Six Traits model of writing instructions and assessment. It is an ongoing expectation that all faculty members will implement this mode of language instruction in their classroom.

IDEAS- The writer's primary message, point of story, showing details and clarity.
ORGANIZATION- Putting in formation into an order that shows direction and purpose.
VOICE- Includes the expression of a writer's personality; an awareness of the intended audience: and a skillful blend of detail, enthusiasm, and knowledge of the topic.
WORD CHOICE- Selecting, identifying and revising specific descriptive language.
SENTENCE FLUENCY – Smooth writing patterns and rhythmic flow of language.
CONVENTIONS- Using appropriate editing and presentation skills.

Criteria For Evaluation And Assessments:

1. Use district assessment form to implement six traits writing.
2. Put visual aide materials up in the classroom to promote the six traits.
3. Administer appropriate rubrics and assessments.

MULTICULTURAL EDUCATION

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Criteria For Evaluation and Assessments:

1. A district assessment form is used to document multicultural education in the classroom.
2. An annual status report is provided to the local board of education

BUSINESS EDUCATION ESSENTIAL LEARNINGS:
12.4.0 COMMUNICATIONS
Students will understand principles of effective communication. They will demonstrate competency by selecting competency by selecting and using appropriate forms of communication while working individually and in groups.

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12.4.1 Communications present a positive image through verbal and nonverbal

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12.4.2 Correspondence—compose, format, and edit correspondence
12.4.3 International Communications—develop an awareness of the language and varying customs required for international communications
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12.4.7 Proofreading—edit and correct text for grammatical/spelling errors not identified through spell/grammar checking software programs
12.4.8 Technical Reading—understand the content of technical reading material by following direction or accurately interpreting data
12.4.9 Technical Writing—write instructions for technical procedures
12.4.10 Technology—use appropriate forms of technology for communications

12.13.0 SYSTEMS AND IMPLEMENTATION

Students will understand the factors contributing to a productive workforce in a pluralist, technologically orientated environment. They will demonstrate competency by creating, developing, and producing information as an individual or a team member.

Instructional content leading to mastery of the performance standard should include but is not limited to:

12.13.1 Management Skills—prioritize work to fulfill responsibilities, to meet deadlines, and to utilize negotiation skills
12.13.2 Occupational Safety—demonstrate safety practices to maintain a safe and secure technological work environment
12.13.3 Records Management—classify, store, retrieve, archive, and purge paper and computer-based records
12.13.4 Teamwork—demonstrate the ability to work with others in a diverse and global environment
12.13.5 Work Environment—design and organize an ergonomically correct work environment that maximizes productivity while considering human needs, budgetary guidelines, equipment, and supplies
12.13.6 Work Ethics—demonstrate positive work habits and strive to achieve personal job Satisfaction.

12.14.0 BUSINESS AND CONSUMER LAW

Students will understand the legal rights and responsibilities relevant to personal and business practices. They will demonstrate competency by analyzing and applying personal and business law.

Instructional content leading to mastery of the performance standard should include but is not limited to:

12.15.1 Assistance agencies – identify sources of public and private agencies that assist and protect individuals and businesses.
12.15.2 Contracts – describe the basic elements, requirements, and obligations for an enforceable contract.
12.15.3 Employment Opportunities – explore career opportunities available in the field of law
12.15.4 Ethics – discuss the ethical responsibilities of individuals and society
12.15.5 Government Regulations – examine the principal areas of government regulation of

personal and business activities

12.15.6 International Legal Issues – research how differences in laws among countries complicate business operations

12.15.7 Legal Rights – discuss laws that protect individual and organizational rights

UNITS INCLUDED IN TEXT

Unit 1: Law, Justice, and You
- Chapter 1 – Our Laws
- Chapter 2 – Ethics in Our Law
- Chapter 3 – Constitutional Rights
- Chapter 4 – The Court System
- Chapter 5 – Our Criminal Laws
- Chapter 6 – Personal Injury Law

Unit 2: Fundaments of Contracts
- Chapter 7 – Offer and Acceptance
- Chapter 8 – Genuine Agreement
- Chapter 9 – Mutual Consideration
- Chapter 10 – Law of Capacity
- Chapter 11 – Legality of Contracts
- Chapter 12 – Written Contracts
- Chapter 13 – Contractual Duties
- Chapter 14 – How Courts Enforce Contracts

Unit 3: Sales and Other Contractual Situations
- Chapter 15 – Sales Contracts
- Chapter 16 – Ownership and Risk of Loss in Sales Transactions
- Chapter 17 – Consumer Protection
- Chapter 18 – Legal Considerations in Marriage and Divorce

Unit 4: Property
- Chapter 19 – Property
- Chapter 20 – Bailments
- Chapter 21 – Real Property
- Chapter 22 – Renting Realty
- Chapter 23 – Insuring Your Future
- Chapter 24 – Wills, Estates, and Trusts

Unit 5: The Law of Jobs
- Chapter 25 – Creation of Agency
- Chapter 26 – Operation of Agency
- Chapter 27 – Employment Contracts
- Chapter 28 – Unions
- Chapter 29 – Employment Discrimination
- Chapter 30 – Employee Injuries

Unit 6: Forms of Business Organizations
- Chapter 31 – Forms of Business Organization
- Chapter 32 – Creating, Running, and Terminating a Corporation
- Chapter 33 – Forms of Organizations for Small Business
- Chapter 34 – Governmental Regulation of Business

Unit 7: Borrowing Money and Paying Bills

- Chapter 35 – Commercial Paper
- Chapter 36 – Negotiability and Negotiation of commercial paper
- Chapter 37 – Rights of Holders of Commercial Paper
- Chapter 38 – Secured and Unsecured Credit Obligations
- Chapter 39 – Debtors, Creditors, and Bankruptcy

TITLE: **PERSONAL FINANCE**
GRADE: **9TH-12TH**

RESOURCES MATERIALS: Textbook: Business and Personal Finance (published by Glencoe copyright 2007), National Endowment for Financial Education (workbooks), H&R Block's Virtual Business-Personal Finance & Life Skills Curriculum (computer simulation). Ipads and various "apps" related to ; Finance, checking accounts, loan calculators, and business.

CRITERIA FOR EVALUATION AND ASSESSMENT: Daily work, quizzes, tests, online simulation lessons, new career project, and multi-player competitions.

SIX TRAIT CURRICULUM

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VOICE- Includes the expression of a writer's personality; an awareness of the intended audience: and a skillful blend of detail, enthusiasm, and knowledge of the topic.
WORD CHOICE- Selecting, identifying and revising specific descriptive language.
SENTENCE FLUENCY – Smooth writing patterns and rhythmic flow of language.
CONVENTIONS- Using appropriate editing and presentation skills.

Criteria For Evaluation And Assessments:

1. Use district assessment form to implement six traits writing.
2. Put visual aide materials up in the classroom to promote the six traits.
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MULTICULTURAL EDUCATION

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Criteria For Evaluation and Assessments:

1. A district assessment form is used to document multicultural education in the classroom.
2. An annual status report is provided to the local board of education

BUSINESS & PERSONAL FINANCE (Textbook)

Chapter 1: Personal Financial Planning
Chapter 2: Finances and Career Planning
Chapter 3: Money Management Strategy
Chapter 4: Consumer Purchasing and Protection
Chapter 5: Banking
Chapter 6: Consumer Credit

Chapter 7: The Finances of Housing
Chapter 8: Saving and Investing
Chapter 9: Stocks
Chapter 10: Bonds and Mutual Funds
Chapter 11: Real Estate and Other Investments
Chapter 12: Planning Your Tax Strategy
Chapter 13: Home and Motor Vehicle Insurance
Chapter 14: Health, Disability, and Life Insurance
Chapter 15: Retirement & Real Estate Planning
Chapter 16: Types of Business Ownership
Chapter 17: Developing a Business Plan
Chapter 18: Developing a Financial Plan
Chapter 19: Sources of Funding
Chapter 20: Financial Accounting
Chapter 21: Managing Payroll and Inventory
Chapter 22: Pricing, Costing, and Growth

NATIONAL ENDOWMENT FOR FINANCIAL EDUCATION (NEFE)

Unit 1: Financial Planning: Your Roadmap
Unit 2: Career: Labor You Love
Unit 3: Budget: Don't Go Broke
Unit 4: Savings and Investments: Your Money at Work
Unit 5: Credit: Buy Now, Pay Later
Unit 6: Insurance: Your Protection

VIRTUAL BUSINESS-PERSONAL FINANCE

Lessons:

1. Time Management & Health
2. Finding a Job
3. Budgeting & Saving
4. Finding an Apartment
5. Buying a Car
6. Shopping
7. Choosing & Balancing a Checking Account
8. Getting a Credit Card
9. Fixing Your Credit
10. Education & Advancement
11. Using Online Banking
12. Paying Your Taxes
13. Intro to Investing
14. Risk vs. Return
15. Diversification
16. Investing For Retirement
17. Buying a Home
18. Insurance

New Career Project & Multi-Player Competition

TITLE: NETWORK SYSTEMS
GRADE LEVEL: 10^{TH} – 12^{TH}

RESOURCE MATERIALS: CCNA 4.0 Curriculum books, Six Traits worksheets/activities, Internet, Film/Media, Various Websites.

CRITERIA FOR EVALUATION AND ASSESSMENT: Project based grading will be the main grade but there will also be the following: quizzes, discussions, writing assignments, multiple rubrics, group and individual activities, lab work and assignments.

SIX TRAIT CURRICULUM

The Johnson County Central Public School District endorses and implements the Six Traits model of writing instructions and assessment. It is an ongoing expectation that all faculty members will implement this mode of language instruction in their classroom.

IDEAS- The writer's primary message, point of story, showing details and clarity.
ORGANIZATION- Putting in formation into an order that shows direction and purpose.
VOICE- Includes the expression of a writer's personality; an awareness of the intended audience: and a skillful blend of detail, enthusiasm, and knowledge of the topic.
WORD CHOICE- Selecting, identifying and revising specific descriptive language.
SENTENCE FLUENCY – Smooth writing patterns and rhythmic flow of language.
CONVENTIONS- Using appropriate editing and presentation skills.

Criteria For Evaluation And Assessments:

1. Use district assessment form to implement six traits writing.
2. Put visual aide materials up in the classroom to promote the six traits.
3. Administer appropriate rubrics and assessments.

MULTICULTURAL EDUCATION

The instructional program at Johnson County Central Public Schools incorporates multicultural education in all curriculum areas at all grades. Multicultural education includes, but is not limited to studies relative to the culture, history, and contribution African Americans, Hispanic Americans, Native Americans, Asian Americans, and European Americans with special emphasis on human relations and sensitivity toward all races.

Criteria For Evaluation and Assessments:

1. A district assessment form is used to document multicultural education in the classroom.
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STANDARDS:
By the end of Network Systems, the Learner Will:

1. Set up a personal computer system, including the operating system, interface cards, and peripheral devices
2. Plan and install a small network connecting to the Internet
3. Troubleshoot network and Internet connectivity
4. Share resources such as file and printers among multiple computers
5. Recognize and mitigate security threats to a home network
6. Configure an integrated wireless access point and wireless client
7. Learn basic python

8. Apply Python to multiple virtual and real life situations
9. Use Raspberry Pi to facilitate both the networking and programming aspects of the class.

TITLE: **INSTRUMENTAL MUSIC**
GRADE: **9TH-12TH**

RESOURCE MATERIALS: A reputable band method book, concert music, marching and pep band music, warm up material, theory worksheets, multicultural worksheets, 6-trait materials, and technology including all audio and visual media.

CRITERIA FOR EVALUATION AND ASSESSMENT: Individual practice time, playing exams, performance attendance, written work (exams and papers) and rehearsal effort, attitude and conduct. Instrument lesson determined by teacher.

SIX TRAIT CURRICULUM

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VOICE - Includes the expression of a writer's personality; an awareness of the intended audience; and a skillful blend of detail, enthusiasm, and knowledge of the topic.
WORD CHOICE - Selecting, identifying, and reviewing specific descriptive language.
SENTENCE FLUENCY - Smooth writing patterns and rhythmic flow of language.
CONVENTIONS - Using appropriate editing and presentation skills.

Criteria For Evaluation And Assessments:

1. Use district assessment form to implement six trait writing in the classroom.
2. Put visual aide materials up in the classroom to promote the six traits.
3. Administer appropriate rubrics and assessments.

MULTICULTURAL EDUCATION

The instructional program at Johnson County Central Public Schools incorporates multicultural education in all curriculum areas at all grades. Multicultural education includes, but is not limited to, studies relative to culture, history, and contributions of African Americans, Hispanic Americans, Native Americans, Asian Americans and European Americans with special emphasis on human relations and sensitivity toward all races.

Criteria For Evaluation And Assessments:

1. A district assessment form is used to document multicultural education in the classroom.
2. An annual status report is provided to the local board of education.

NATIONAL MUSIC STANDARDS (PROFICIENT LEVEL)

I. Performing on instruments, alone and with others, a varied repertoire of music.

A. Students will-be able to perform with expression and technical accuracy a large and varied repertoire of instrumental literature with a level of difficulty of 3 on a scale of 1-6.

B. Students will be able to perform an appropriate part in an ensemble, demonstrating well-developed ensemble skills.

C. Students will be able to perform in small ensembles with one student on a part.

II. Composing and arranging music within specified guidelines

A. Students will be able to compose music in several distinct styles demonstrating creativity in using the elements of music for expressive effect.

B. Students will be able to arrange pieces for voices or instruments other than those for which the pieces were written in ways that preserve or enhance the expressive effect of the music.

C. Students will be able to compose and arrange music for voices and various acoustic and electronic instruments, demonstrating knowledge of the ranges and traditional usages of the sound sources.

III. Reading an notating music

A. Students will be able to demonstrate the ability to read an instrumental or vocal score of up to four staves by describing how the elements of music are used.

B. Students will be able to sightread accurately and expressively, music with a level of difficulty 2 on a scale of I to 6.

IV. Listening to, analyzing, and describing music.

A. Students will be able to analyze aural examples of a varied repertoire of music, representing diverse genres and cultures, by describing the uses of elements of music and expressive devices.

B. Students will be able to demonstrate extensive knowledge of the technical vocabulary of music.

C. Students will be able to identify and explain compositional devices and techniques used to provide unity and variety and tension and release in a musical work and give examples of other works that make similar used of these devices and techniques.

V. Evaluating music and music performances

A. Students will be able to evolve specific criteria for making informed, critical evaluations of the quality and effectiveness of performances, compositions, arrangements, and improvisations and apply the criteria in their personal participation in music.

B. Students will be able to evaluate a performance, compositions, arrangement, or improvisation by comparing it to similar or exemplary models.

VI. Understanding relationships between music, the other arts, and disciplines outside the arts.

A. Students will be able to explain how elements, artistic processes (such as imagination or craftsmanship), and organizational principles (such as unity and variety or repetition and contrast) are used in similar and distinctive ways in the various arts and cite examples.

B. Students will be able to compare characteristics of two or more arts within a particular historical period or style and cite examples from the various cultures.

C. Students will be able to explain ways in which the principles and subject matter of various disciplines outside the arts are interrelated with those of music.

VII. Understanding music in relation to history and culture

A. Students will be able to classify by genre or style and by historical period or culture unfamiliar but representative aural examples of music and explain the reasoning behind their classifications.

B. Students will be able to identify sources of American music genres, trace the evolution of those genres, and cite will-known musicians associated with them.

C. Students will be able to identify various roles that musicians perform, cite representative individuals who have functioned in each role, and describe their activities and achievements.

Learning Unit for High School Band

PERFORMANCE UNIT

- Marching Band/Pep Band
  - Attendance at morning rehearsals held during first quarter
  - Learning marching and pep band music
  - Demonstrating all basic and advanced marching skills
  - Performing at parades and halftime shows, and marching contests
  - Playing at pep rallies and pep bands
- Concert Band
  - Learning concert music
  - Performing at concerts and contests
  - Auditioning for festivals and honor bands
- Jazz Band (participation through audition or director permission only)
  - Rehearsing and practicing jazz band music
  - Performing jazz band music at concerts, contests, and festivals

ELEMENTS OF MUSIC UNIT

- Rhythms and Notes
  - Understanding 16^{TH} and larger note and rest subdivision and combinations thereof
  - Understanding any dotted rhythms-notes and rests
  - Knowing how to count compound meters 6/8, 9/8, 12/8
  - Knowing how to count asymmetrical meters 5/8, 7/8, etc.
  - Being able to sight-read grade 3 music
  - Being able to perform a grade 4 piece of music through rehearsal and practice
  - Rhythms unique to percussionists 16^{TH} note and rhythm combos in any meter
  - Demonstrating the, knowledge of all of the above through playing exams
- Terms and Signs
  - Knowing and playing all major and minor scales and the chromatic scale
  - Understanding how major and minor scales are built
  - Knowing that there are 3 forms of minor scales
  - Recognizing and understanding the following terms
    - Simile
    - Pentatonic Scale
    - Tempo markings (Andantino, Larghetto)
    - Dynamics (ff and pp)
    - All articulation markings
    - Major and minor chords
    - Crescendo and decrescendo
    - Phrasing
    - Grazioso
    - Grace Notes
    - Trills
    - Dolce
    - Form (Binary, Ternary and Rondo)
    - Cadences
    - Terms unique to percussionists: o, +, cross sticking, stick clicks

- Music styles and genres
  - Knowledge of and ability to perform a variety of musical styles (genres) from a variety of time periods
  - Classical
  - Romantic
  - 20th Century
    - Swing
    - Marches
    - Latin
    - Funk
    - Rock
    - Blues
    - Atonal
  - Demonstrate the knowledge of the above through playing and written exams

MUSIC ENRICHMENT UNIT

- Warm-Up
  - Knowing how to warm-up instrument properly before playing individually and groups
- Theory
  - Understanding and playing a chromatic scale starting on any note
  - Understanding, building, and playing all minor scales
  - Understanding, building, and playing all major scales
  - Understanding, building, and playing a pentatonic scale
  - Understanding, building, and playing a whole tone scale
  - Recognizing aurally and visually any interval
  - Understanding and knowing how to count more advanced rhythms
  - Understanding and building major and minor chords
  - Understanding phrasing and where breaths should be taken in that phrase
  - Composing and arranging short pieces using knowledge of theory
  - Understanding tonality and how to tune individual instrument to match pitches
  - Knowing how to transpose a short piece to their instrument
  - Conducting a piece of music through knowledge of conducting patterns
  - Understanding and explaining what form is and giving examples of each
  - Demonstrating knowledge of theory through written and aural exams
- Ensembles/Solos/Small Groups
  - Playing individual part in an ensemble
  - Playing a solo for a concert or contest
  - Playing individual part in small group that is assigned or chosen, duet, trio, etc.
  - Being able to play different styles of music and music from various historical periods
- Aural/Listening Experiences
  - Listening to, and describing the different music-classical, jazz, rock, etc.
  - Evaluating music using technical music vocabulary
  - Analyzing and evaluating aural examples of a varied repertoire of music
  - Critically evaluating a musical performance
  - Demonstrating the knowledge of above through listening examples, concert attendance, and writing exercises.

INTERDISCIPLINARY UNIT

History

Defining, describing, knowing terms, knowing dates, knowing historical composers of the six different historical eras of music: Middle Ages, Renaissance, Baroque, Classical, Romantic, and 20th Century-and their relationship to the other arts in those same historical eras.

Learning the above through worksheets, videos, computer, reading assignments.

Being able to demonstrate this knowledge through written exams, playing tests, oral examples, and writing assignments.

Multi-cultural

Studying and playing music from other cultures as well as America

Understanding other aspects of these various cultures besides just the music

TITLE: **VOCAL MUSIC**
GRADE: **9TH-12TH**

RESOURCE MATERIALS: Music sheets.

CRITERIA FOR EVALUATION AND ASSESSMENT: Performances, quizzes, tests and writing assignments.

SIX TRAIT CURRICULUM

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WORD CHOICE - Selecting, identifying, and reviewing specific descriptive language.
SENTENCE FLUENCY - Smooth writing patterns and rhythmic flow of language.
CONVENTIONS - Using appropriate editing and presentation skills.

Criteria For Evaluation And Assessments:

1. Use district assessment form to implement six trait writing in the classroom.
2. Put visual aide materials up in the classroom to promote the six traits.
3. Administer appropriate rubrics and assessments.

MULTICULTURAL EDUCATION

The instructional program at Johnson County Central Public Schools incorporates multicultural education in all curriculum areas at all grades. Multicultural education includes, but is not limited to, studies relative to culture, history, and contributions of African Americans, Hispanic Americans, Native Americans, Asian Americans and European Americans with special emphasis on human relations and sensitivity toward all races.

Criteria For Evaluation And Assessments:

1. A district assessment form is used to document multicultural education in the classroom.
2. An annual status report is provided to the local board of education.

The study of music contributes in important ways to the quality of every student's life. Every musical work is a product of its time and place, although some works transcend their original settings and continue to appeal to humans through their timeless and universal attraction. Through singing, playing instruments, and composing, students can express themselves creatively, while a knowledge of notation and performance traditions enables them to learn new music independently throughout their lives. Skills in analysis, evaluation, and synthesis are important because they enable students to recognize and pursue excellence in their musical experiences and to understand and enrich their environment. Because music is an integral part of human history, the ability to listen with understanding is essential if students are to gain a broad cultural and historical perspective. The adult life of every student is enriched by the skills, knowledge, and habits acquired in the study of music.

Every course in music, including performance courses, should provide instruction in creating, performing, listening to, and analyzing music, in focusing on its specific subject matter.

SINGING, ALONE AND WITH OTHERS, A VARIED REPERTOIRE OF MUSIC

ACHIEVEMENT STANDARD, PROFICIENT:

- Students sing with expression and technical accuracy a large and varied repertoire of vocal literature with a level of difficulty of 4, on a scale of I to 6, including some songs performed from memory.
- Students sing music written in four parts, with and without accompaniment.
- Students demonstrate well-developed ensemble skills.

ACHIEVEMNET STANDARD, ADVANCED:

- Students sing with expression and technical accuracy a large and varied repertoire of vocal literature with a level of difficulty of 5, on a scale of I to 6.
- Students sing music written in more than four parts.
- Students sing in small ensembles with one student on a part.

READING AND NOTATING MUSIC

ACHIEVEMENT STANDARD, PROFICIENT:

- Students demonstrate the ability to read a vocal score of up to four staves by describing how the elements of music are used.
- Students who participate in a choral ensemble or class sight-read, accurately and expressively, music with a level of difficulty of 3, on a scale of 1 to 6.

ACHIEVEMENT STANDARD, ADVANCED:

- Students demonstrate the ability to read a full vocal score by describing how the elements of music are used and explaining all transpositions and clefs.
- Students interpret nonstandard notation symbols used by some 20^{th} century composers.
- Students who participate in a choral ensemble or class sight-read, accurately and expressively, music with a level of difficulty of 4, on a scale of 1 to 6.

LISTENING TO, ANALYZING AND DESCRIBING MUSIC

ACHIEVEMENT STANDARD, PROFICIENT:

- Students analyze aural examples of a varied repertoire of music, representing diverse genres and cultures, by describing the uses of elements of music and expressive devices.
- Students demonstrate extensive knowledge of the technical vocabulary of music.
- Students identify and explain compositional devices and techniques used to provide unity and variety and tension and release in a musical work and give examples of other works that make similar uses of these devices and techniques.

ACHIEVEMENT STANDARD, ADVANCED:

- Students demonstrate the ability to perceive and remember music events by describing in detail significant events (e.g., fugal-entrances, chromatic modulations, developmental devices) occurring in a given aural example.
- Students compare ways in which musical materials are used in a given example relative to ways in which they are used in other works of the safe genre or style.
- Students analyze and describe uses of the elements of music in a given work that make it unique, interesting, and expressive.

EVALUATING MUSIC AND MUSIC PERFORMANCES

ACHIEVEMENT STANDARD, PROFEICIENT:

- Students evolve- specific criteria for making informed, critical evaluations of the quality and effectiveness of performances, compositions, arrangements, and improvisations and apply the criteria in their personal participation in music.
- Students evaluate a performance, composition, arrangement, or improvisation by comparing it to similar or exemplary models.

ACHIEVEMENT STANDARD, ADVANCED:

- Students evaluate a given musical work in terms of its aesthetic qualities and explain the musical means it uses to evoke feelings and emotions.

UNDERSTANDING MUSIC IN RELATION TO HISTORY AND CULTURE

ACHIEVEMENT STANDARD, PROFICIENT:

- Students classify by genre or style and by, historical period or culture unfamiliar but representative aural examples of music and explain the reasoning behind their classifications.
- Students identify sources of American music genres (e.g., swing, Broadway musical, blues) trace the evolution of those genres, and cite well-known musicians associated with them.
- Students identify various roles (e.g. entertainer, teacher, transmitter of cultural tradition) that musicians perform, cite representative individuals who have functioned in each role, and describe their activities and achievements.

ACHIEVEMENT STANDARD, ADVANCED:

- Students identify and explain the stylistic features of a given musical work that serve to define its aesthetic tradition and its historical or cultural context.
- Students identify and describe music genres or styles that, show the influence of two or more cultural traditions, identify the cultural source of each influence and trace the historical conditions that produced the synthesis of influences.

UNIT I:

-ECNC Honor choir clinic
-Pie Night
-All State

UNIT II:

-Christmas

UNIT III:

-Mudecas music contest
-Other Honor Choir
-Freshmore clinic
-District music

UNIT IV:

-Spring concert
-Extra-curricular contests

TITLE: **ART I**
GRADE: **9^{TH} – 12^{TH}**

RESOURCE MATERIALS: Art reproductions, Art Museums, reading materials; *Scholastic Art Magazine*, web-quests, worksheets, power point presentations and other published articles/programs.

CRITERIA FOR EVALUATION AND ASSESSMENT: Art production project grades, tests, discussions, writing assignments, multiple rubrics, group and individual activities, presentation of projects, physical demonstration of skills and techniques.

NATIONAL VISUAL ARTS STANDARDS:

Content Standard #1: Understanding and applying media, techniques, and processes.

Achievement Standard, Proficient:

*Students apply media, techniques, and processes with sufficient skill, confidence, and sensitivity that their intentions are carried out in their artworks.

*Students conceive and create works of visual art that demonstrate an understanding of how the communication of their ideas relates to the media, techniques, and processes they use.

Achievement Standard, Advanced:

*Students communicate ideas regularly at a high level of effectiveness in at least one visual arts medium.

*Students initiate, define, and solve challenging visual arts problems independently using intellectual skills such as analysis, synthesis, and evaluation.

Content Standard #2: Using knowledge of structures and functions.

Achievement Standard, Proficient:

*Students demonstrate the ability to form and defend judgments about the characteristics and structures to accomplish commercial, personal, communal, or other purposes of art.

*Students evaluate the effectiveness of artworks in terms of organizational structures and functions.

*Students create artworks that use organizational principles and functions to solve specific visual arts problems.

Achievement Standard, Advanced:

*Students demonstrate the ability to compare two or more perspectives about the use of organizational principles and functions in artwork and to defend personal evaluations of these perspectives.

*Students create multiple solutions to specific visual arts problems that demonstrate competence in producing effective relationships between structural choices and artistic functions.

Content Standard #3: Choosing and evaluating a range of subject matter, symbols, and ideas.

Achievement Standard, Proficient:

*Students reflect on how artworks differ visually, spatially, temporally, and functionally, and describe how these are related to history and culture.

*Students apply subjects, symbols, and ideas in their artworks and use the skills gained to solve problems in daily life.

Achievement Standard, Advanced:

*Students describe the origins of specific images and ideas and explain why they are

of value in their artwork and in the work of others.
*Students evaluate and defend the validity of sources for content and the manner in which subject matter, symbols, and images are used in the student's works and in significant works by others.

Content Standard #4: Understanding the visual arts in relation to history and cultures.
Achievement Standard, Proficient:
*Students differentiate among a variety of historical and cultural context in terms of Characteristics and purposes of works of art.
*Students describe the function and explore the meaning of specific art objects within varied cultures, times, and places.
*Students analyze relationships of works of art to one another in terms of history, aesthetics, and culture, justifying conclusions made in the analysis and using such conclusions to inform their own art making.
Achievement Standard, Advanced:
*Students analyze and interpret artworks for relationships among form, context, purposes, and critical models, showing understanding of the work of critics, historians, aestheticians, and artists.
*Students analyze common characteristics of visual arts evident across time and among cultural/ethnic groups to formulate analyses, evaluations, and interpretations of meaning.

Content Standard #5: Reflecting upon and assessing the characteristics and merits of their Work and the work of others.
Achievement Standard, Proficient:
*Students identify intentions of those creating artworks, explore the implications of various purposes, and justify their analyses of purposes in particular works.
*Students describe meanings of artworks by analyzing how specific works are created and how they relate to historical and cultural contexts.
*Students reflect analytically on various interpretations as a means for understanding and evaluating works of visual art.
Achievement Standard, Advanced:
*Students correlate responses to works of visual art with various techniques for communicating meanings, ideas, attitudes, views, and intentions.

Content Standard #6: Making connections between visual arts and other disciplines.
Achievement Standard, Proficient:
*Students compare the materials, technologies, media, and processes of the visual arts with those of other arts disciplines as they are used in creation and types of analysis.
*Students compare characteristics of visual arts within a particular historical period or style with ideas, issues, or themes in the humanities or sciences.
Achievement Standard, Advanced:
*Students synthesize the creative and analytical principles and techniques of the visual arts and selected other arts disciplines, the humanities, or the sciences.

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VOICE - Includes the expression of a writer's personality; an awareness of the intended audience; and a skillful blend of detail, enthusiasm, and knowledge of the topic.
WORD CHOICE - Selecting, identifying, and reviewing specific descriptive language.
SENTENCE FLUENCY - Smooth writing patterns and rhythmic flow of language.
CONVENTIONS - Using appropriate editing and presentation skills.

Criteria For Evaluation And Assessments:

1. Use district assessment form to implement six trait writing in the classroom.
2. Put visual aide materials up in the classroom to promote the six traits.
3. Administer appropriate rubrics and assessments.

MULTICULTURAL EDUCATION

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Criteria For Evaluation And Assessments:

1. A district assessment form is used to document multicultural education in the classroom.
2. An annual status report is provided to the local board of education.
3. Prehistoric, Aboriginal, Egyptian, Native American, Ancient Greek and Roman Civilizations, Early Christian art/medieval, and Italian/Northern Renaissance.

ART PRODUCTION:

Create art reproducing ancient techniques from a variety of cultures using an assortment of media and techniques. Experiment / discover art production methods supporting the study of ancient cultures.

Drawing (marker, color pencil, pencil, crayon,), painting (tempra, acrylic), Calligraphy, (pictographs, hieroglyphics), fiber art / surface design (parfleche), sculpture, (modeling clay/fetishes, Greek pottery forms/paper mache), Printmaking (relief), mosaic, paper.

DESIGN ELEMENTS; (PRODUCE PROJECTS UTILIZING DESIGN ELEMENTS)

Line: repetition to create pattern, line qualities, line directions
Shape: geometric / organic
Color: color wheel theory, mixing colors, color plans
Value: generating value with pressure, tints and shade paint
Texture: three types, actual, simulated, invented
Space: occupied / unoccupied

DESIGN PRINCIPLES (CREATE ART WORK DEMONSTRATING DESIGN PRINCIPLES)

Pattern
Balance & Unity
Contrast

Rhythm and Movement

3 TYPES OF DESIGN (CREATE DESIGNS REPRESENTATIVE OF DESIGN TYPES)

Realistic
Abstract
Non-objective

ART APPRECTIATION:

Focus on the beginning of art (prehistoric) – Italian Renaissance. Expose students to a variety of artist's works through art museum visit, art reproductions, handouts, directed readings in Scholastic Art Magazine, power point presentations, web-quests, and other published articles. Study the characteristics and visual qualities of different cultures and civilizations throughout history. Apply historical time references using a time line and "years ago".

Sketch book assignments will be assigned to foster individual creativity and subject choice. One hours worth of work, outside of scheduled art class time, will be journaled and turned in bi-weekly.

To foster appreciation by understanding and respecting artwork from a variety of cultures, historical development of art forms, techniques, functions, artists roles, societal influence.

To develop a vocabulary to evaluate, categorize, compare and contrast works of art verbally or through directed writing, critique and visually identify subject matter, design elements, principles, and types of design, cultural identity, and time in history.

TITLE: **ART II**
GRADE: **10TH-12TH**

RESOURCE MATERIALS: Art reproductions, Art Museums, reading materials; *Scholastic Art Magazine*, web-quests, worksheets, power point presentations and other published articles.

CRITERIA FOR EVALUATION AND ASSESSMENT: Art production project grades, tests, discussions, writing assignments, multiple rubrics, group and individual activities, presentation of projects, physical demonstration of skills and techniques.

NATIONAL VISUAL ARTS STANDARDS:

Content Standard #1: Understanding and applying media, techniques, and processes.

Achievement Standard, Proficient:

*Students apply media, techniques, and processes with sufficient skill, confidence, and sensitivity that their intentions are carried out in their artworks.

*Students conceive and create works of visual art that demonstrate an understanding of how the communication of their ideas relates to the media, techniques, and processes they use.

Achievement Standard, Advanced:

*Students communicate ideas regularly at a high level of effectiveness in at least one visual arts medium.

*Students initiate, define, and solve challenging visual arts problems independently using intellectual skills such as analysis, synthesis, and evaluation.

Content Standard #2: Using knowledge of structures and functions.

Achievement Standard, Proficient:

*Students demonstrate the ability to form and defend judgments about the characteristics and structures to accomplish commercial, personal, communal, or other purposes of art.

*Students evaluate the effectiveness of artworks in terms of organizational structures and functions.

*Students create artworks that use organizational principles and functions to solve specific visual arts problems.

Achievement Standard, Advanced:

*Students demonstrate the ability to compare two or more perspectives about the use of organizational principles and functions in artwork and to defend personal evaluations of these perspectives.

*Students create multiple solutions to specific visual arts problems that demonstrate competence in producing effective relationships between structural choices and artistic functions.

Content Standard #3: Choosing and evaluating a range of subject matter, symbols, and ideas.

Achievement Standard, Proficient:

*Students reflect on how artworks differ visually, spatially, temporally, and functionally, and describe how these are related to history and culture.

*Students apply subjects, symbols, and ideas in their artworks and use the skills gained to solve problems in daily life.

Achievement Standard, Advanced:

*Students describe the origins of specific images and ideas and explain why they are

of value in their artwork and in the work of others.
*Students evaluate and defend the validity of sources for content and the manner in which subject matter, symbols, and images are used in the student's works and in significant works by others.

Content Standard #4: Understanding the visual arts in relation to history and cultures.
Achievement Standard, Proficient:
*Students differentiate among a variety of historical and cultural context in terms of Characteristics and purposes of works of art.
*Students describe the function and explore the meaning of specific art objects within varied cultures, times, and places.
*Students analyze relationships of works of art to one another in terms of history, aesthetics, and culture, justifying conclusions made in the analysis and using such conclusions to inform their own art making.
Achievement Standard, Advanced:
*Students analyze and interpret artworks for relationships among form, context, purposes, and critical models, showing understanding of the work of critics, historians, aestheticians, and artists.
*Students analyze common characteristics of visual arts evident across time and among cultural/ethnic groups to formulate analyses, evaluations, and interpretations of meaning.

Content Standard #5: Reflecting upon and assessing the characteristics and merits of their Work and the work of others.
Achievement Standard, Proficient:
*Students identify intentions of those creating artworks, explore the implications of various purposes, and justify their analyses of purposes in particular works.
*Students describe meanings of artworks by analyzing how specific works are created and how they relate to historical and cultural contexts.
*Students reflect analytically on various interpretations as a means for understanding and evaluating works of visual art.
Achievement Standard, Advanced:
*Students correlate responses to works of visual art with various techniques for communicating meanings, ideas, attitudes, views, and intentions.

Content Standard #6: Making connections between visual arts and other disciplines.
Achievement Standard, Proficient:
*Students compare the materials, technologies, media, and processes of the visual arts with those of other arts disciplines as they are used in creation and types of analysis.
*Students compare characteristics of visual arts within a particular historical period or style with ideas, issues, or themes in the humanities or sciences.
Achievement Standard, Advanced:
*Students synthesize the creative and analytical principles and techniques of the visual arts and selected other arts disciplines, the humanities, or the sciences.

SIX TRAIT CURRICULUM

The Johnson County Central Public School District endorses and implements the Six Traits model of writing instruction and assessment. It is an ongoing expectation that all faculty members will implement the mode of language instruction in their classroom.

IDEAS - The writer's primary message, point of story, showing details and clarity.
ORGANIZATION - Putting information into an order that show direction and purpose.
VOICE - Includes the expression of a writer's personality; an awareness of the intended audience; and a skillful blend of detail, enthusiasm, and knowledge of the topic.
WORD CHOICE - Selecting, identifying, and reviewing specific descriptive language.
SENTENCE FLUENCY - Smooth writing patterns and rhythmic flow of language.
CONVENTIONS - Using appropriate editing and presentation skills.

Criteria For Evaluation And Assessments:

1. Use district assessment form to implement six trait writing in the classroom.
2. Put visual aide materials up in the classroom to promote the six traits.
3. Administer appropriate rubrics and assessments.

MULTICULTURAL EDUCATION

The instructional program at Johnson County Central Public Schools incorporates multicultural education in all curriculum areas at all grades. Multicultural education includes, but is not limited to, studies relative to culture, history, and contributions of African Americans, Hispanic Americans, Native Americans, Asian Americans and European Americans with special emphasis on human relations and sensitivity toward all races.

Criteria For Evaluation And Assessments:

1. A district assessment form is used to document multicultural education in the classroom.
2. An annual status report is provided to the local board of education.
3. French art movements of 19th century Paris, traditional African art, Ukrainian pysanky eggs, Indonesian Batik.

ART PRODUCTION:

Focus on development of advanced techniques and skills. Create art productions using a variety of media, techniques, design principles, elements, and types. Expose students to a variety of Art related occupations, and to specifically participate in the role of illustrator, graphic designer, and drafts person.

DEVELOP EXPERTISE USING A VARIETY OF TECHNIQUES, ART PRODUCTION METHODS, MEDIA:

Printmaking (linoleum relief), drawing (marker, color pencil, pencil, crayon,), painting (tempra, acrylic), Calligraphy, graphic design (intro. Photoshop), illustration, fiber art (cast paper), surface design, illustration, linear perspective. Sculpture (figure / assemblage, relief)

DESIGN ELEMENTS; (PRODUCE DESIGNS UTILIZING DESIGN ELEMENTS)

Line: create depth, repetition to create pattern, line qualities, line directions
Shape: geometric / organic
Color: color wheel theory, mixing colors, color plans
Value: generating value with pressure, tints and shade painting
Texture: three types, actual, simulated, invented
Space: occupied / unoccupied

DESIGN PRINCIPLES (CREATE DESIGNS DEMONSTRATING DESIGN PRINCIPLES)

Pattern
Balance & Unity
Contrast

Rhythm and Movement

3 TYPES OF DESIGN (CREATE DESIGNS REPRESENTATIVE OF DESIGN TYPES).

Realistic (direct observations using linear perspective)
Abstract
Non-objective

ART APPRECIATION:

Focus on the Artwork from the Renaissance – 20th century, specific study on the development of 20th century "isms". Expose students to a variety of artist's works via, Art reproductions, Art Museums, reading materials; *Scholastic Art Magazine,* web-quests, worksheets, power point presentations and other published articles.

Sketch book assignments will be assigned to foster individual creativity and subject choice. One hours worth of work, outside of scheduled art class time, will be journaled and turned in bi-weekly.

To foster appreciation by understanding and respecting artwork from a variety of cultures, art forms, techniques, functions (art as visual communication), and artists roles in society.

To develop a vocabulary to evaluate, categorize, compare and contrast works of art critique and visually identify subject matter, design elements, principles, and types of design.

To explore art movements, artists and their work, students will create a power point presentation-teaching peers about a specific art movement influential to the development of "Modern" art.

TITLE: **ART III**
GRADE: **11TH-12TH**

RESOURCE MATERIALS: Art reproductions, Art Museums, reading materials; *Scholastic Art Magazine*, web-quests, worksheets, power point presentations and other published articles.

CRITERIA FOR EVALUATION AND ASSESSMENT: Art production project grades, tests, discussions, writing assignments, multiple rubrics, group and individual activities, presentation of projects, physical demonstration of skills and techniques.

NATIONAL VISUAL ARTS STANDARDS:

Content Standard #1: Understanding and applying media, techniques, and processes.

Achievement Standard, Proficient:

*Students apply media, techniques, and processes with sufficient skill, confidence, and sensitivity that their intentions are carried out in their artworks.

*Students conceive and create works of visual art that demonstrate an understanding of how the communication of their ideas relates to the media, techniques, and processes they use.

Achievement Standard, Advanced:

*Students communicate ideas regularly at a high level of effectiveness in at least one visual arts medium.

*Students initiate, define, and solve challenging visual arts problems independently using intellectual skills such as analysis, synthesis, and evaluation.

Content Standard #2: Using knowledge of structures and functions.

Achievement Standard, Proficient:

*Students demonstrate the ability to form and defend judgments about the characteristics and structures to accomplish commercial, personal, communal, or other purposes of art.

*Students evaluate the effectiveness of artworks in terms of organizational structures and functions.

*Students create artworks that use organizational principles and functions to solve specific visual arts problems.

Achievement Standard, Advanced:

*Students demonstrate the ability to compare two or more perspectives about the use of organizational principles and functions in artwork and to defend personal evaluations of these perspectives.

*Students create multiple solutions to specific visual arts problems that demonstrate competence in producing effective relationships between structural choices and artistic functions.

Content Standard #3: Choosing and evaluating a range of subject matter, symbols, and ideas.

Achievement Standard, Proficient:

*Students reflect on how artworks differ visually, spatially, temporally, and functionally, and describe how these are related to history and culture.

*Students apply subjects, symbols, and ideas in their artworks and use the skills gained to solve problems in daily life.

Achievement Standard, Advanced:

*Students describe the origins of specific images and ideas and explain why they are

of value in their artwork and in the work of others.
*Students evaluate and defend the validity of sources for content and the manner in which subject matter, symbols, and images are used in the student's works and in significant works by others.

Content Standard #4: Understanding the visual arts in relation to history and cultures.
Achievement Standard, Proficient:
*Students differentiate among a variety of historical and cultural context in terms of Characteristics and purposes of works of art.
*Students describe the function and explore the meaning of specific art objects within varied cultures, times, and places.
*Students analyze relationships of works of art to one another in terms of history, aesthetics, and culture, justifying conclusions made in the analysis and using such conclusions to inform their own art making.
Achievement Standard, Advanced:
*Students analyze and interpret artworks for relationships among form, context, purposes, and critical models, showing understanding of the work of critics, historians, aestheticians, and artists.
*Students analyze common characteristics of visual arts evident across time and among cultural/ethnic groups to formulate analyses, evaluations, and interpretations of meaning.

Content Standard #5: Reflecting upon and assessing the characteristics and merits of their Work and the work of others.
Achievement Standard, Proficient:
*Students identify intentions of those creating artworks, explore the implications of various purposes, and justify their analyses of purposes in particular works.
*Students describe meanings of artworks by analyzing how specific works are created and how they relate to historical and cultural contexts.
*Students reflect analytically on various interpretations as a means for understanding and evaluating works of visual art.
Achievement Standard, Advanced:
*Students correlate responses to works of visual art with various techniques for communicating meanings, ideas, attitudes, views, and intentions.

Content Standard #6: Making connections between visual arts and other disciplines.
Achievement Standard, Proficient:
*Students compare the materials, technologies, media, and processes of the visual arts with those of other arts disciplines as they are used in creation and types of analysis.
*Students compare characteristics of visual arts within a particular historical period or style with ideas, issues, or themes in the humanities or sciences.
Achievement Standard, Advanced:
*Students synthesize the creative and analytical principles and techniques of the visual arts and selected other arts disciplines, the humanities, or the sciences.

SIX TRAIT CURRICULUM

The Johnson County Central Public School District endorses and implements the Six Traits model of writing instruction and assessment. It is an ongoing expectation that all faculty members will implement the mode of language instruction in their classroom.

IDEAS - The writer's primary message, point of story, showing details and clarity.
ORGANIZATION - Putting information into an order that show direction and purpose.
VOICE - Includes the expression of a writer's personality; an awareness of the intended audience; and a skillful blend of detail, enthusiasm, and knowledge of the topic.
WORD CHOICE - Selecting, identifying, and reviewing specific descriptive language.
SENTENCE FLUENCY - Smooth writing patterns and rhythmic flow of language.
CONVENTIONS - Using appropriate editing and presentation skills.

Criteria For Evaluation And Assessments:

1. Use district assessment form to implement six trait writing in the classroom.
2. Put visual aide materials up in the classroom to promote the six traits.
3. Administer appropriate rubrics and assessments.

MULTICULTURAL EDUCATION

The instructional program at Johnson County Central Public Schools incorporates multicultural education in all curriculum areas at all grades. Multicultural education includes, but is not limited to, studies relative to culture, history, and contributions of African Americans, Hispanic Americans, Native Americans, Asian Americans and European Americans with special emphasis on human relations and sensitivity toward all races.

Criteria For Evaluation And Assessments:

1. A district assessment form is used to document multicultural education in the classroom.
2. An annual status report is provided to the local board of education.
3. Italian Renaissance, African American Art, Chinese paper making, Native American pottery, Mexican Murals.

ART PRODUCTION:

Focus on further development of advanced techniques and skills. Create art productions using a variety of media, techniques, design principles, elements, and types. Expose students to a variety of Art related occupations, and to specifically participate in the role of illustrator, graphic designer, and drafts-person.

DEVELOP EXPERTISE USING A VARIETY OF TECHNIQUES, ART PRODUCTION METHODS, MEDIA:

Printmaking (Mono print, etching), drawing (marker, color pencil, pencil, crayon,), painting (tempra, acrylic), Calligraphy, graphic design (Photoshop), illustration, fiber art (handmade paper, marbling) surface design (batik, Ukrainian egg), illustration, linear perspective, 3D pottery, sculpture (modeling, carving, assemblage, mobile).

DESIGN ELEMENTS; (PRODUCE DESIGNS UTILIZING DESIGN ELEMENTS).

Line: create depth, repetition to create pattern, line qualities, line directions
Shape: geometric / organic
Color: color wheel theory, mixing colors, color plans
Value: generating value with pressure, tints and shade painting
Texture: three types, actual, simulated, invented
Space: occupied / unoccupied

DESIGN PRINCIPLES (CREATE DESIGNS DEMONSTRATING DESIGN PRINCIPLES).

Pattern
Balance & Unity
Contrast

Rhythm and Movement

3 TYPES OF DESIGN (CREATE DESIGNS REPRESENTATIVE OF DESIGN TYPES).

Realistic (direct observations using linear perspective)
Abstract
Non-objective

ART APPRECTIATION:

Expose students to a variety of art occupations and artists' works via, Art reproductions, Art Museums, reading materials; *Scholastic Art Magazine*, web-quests, worksheets, power point presentations and other published articles.

Sketch book assignments will be assigned to foster individual creativity and subject choice. One hours worth of work, outside of scheduled art class time, will be journaled and turned in bi-weekly.

To foster appreciation by understanding and respecting artwork from a variety of cultures, art forms, techniques, functions (art as visual communication), artists' roles in society, and use of art in vocational career development.

To develop a vocabulary to evaluate, categorize, compare and contrast works of art, critique and visually identify subject matter, design elements, principles, and types of design.

TITLE: **ART IV**
GRADE: **12TH**

RESOURCE MATERIALS: Art reproductions, Art Museums, reading materials; *Scholastic Art Magazine*, web-quests, worksheets, power point presentations and other published articles.

CRITERIA FOR EVALUATION AND ASSESSMENT: Art production project grades, daily journal, contract lesson objectives, daily grade, sketch book, discussions, writing assignments, multiple rubrics, individual activities, Portfolio presentation of projects, physical demonstration of skills and techniques.

NATIONAL VISUAL ARTS STANDARDS:

Content Standard #1: Understanding and applying media, techniques, and processes.

Achievement Standard, Proficient:

*Students apply media, techniques, and processes with sufficient skill, confidence, and sensitivity that their intentions are carried out in their artworks.

*Students conceive and create works of visual art that demonstrate an understanding of how the communication of their ideas relates to the media, techniques, and processes they use.

Achievement Standard, Advanced:

*Students communicate ideas regularly at a high level of effectiveness in at least one visual arts medium.

*Students initiate, define, and solve challenging visual arts problems independently using intellectual skills such as analysis, synthesis, and evaluation.

Content Standard #2: Using knowledge of structures and functions.

Achievement Standard, Proficient:

*Students demonstrate the ability to form and defend judgments about the characteristics and structures to accomplish commercial, personal, communal, or other purposes of art.

*Students evaluate the effectiveness of artworks in terms of organizational structures and functions.

*Students create artworks that use organizational principles and functions to solve specific visual arts problems.

Achievement Standard, Advanced:

*Students demonstrate the ability to compare two or more perspectives about the use of organizational principles and functions in artwork and to defend personal evaluations of these perspectives.

*Students create multiple solutions to specific visual arts problems that demonstrate competence in producing effective relationships between structural choices and artistic functions.

Content Standard #3: Choosing and evaluating a range of subject matter, symbols, and ideas.

Achievement Standard, Proficient:

*Students reflect on how artworks differ visually, spatially, temporally, and functionally, and describe how these are related to history and culture.

*Students apply subjects, symbols, and ideas in their artworks and use the skills gained to solve problems in daily life.

Achievement Standard, Advanced:

*Students describe the origins of specific images and ideas and explain why they are of value in their artwork and in the work of others.
*Students evaluate and defend the validity of sources for content and the manner in which subject matter, symbols, and images are used in the student's works and in significant works by others.

Content Standard #4: Understanding the visual arts in relation to history and cultures.
Achievement Standard, Proficient:
*Students differentiate among a variety of historical and cultural context in terms of Characteristics and purposes of works of art.
*Students describe the function and explore the meaning of specific art objects within varied cultures, times, and places.
*Students analyze relationships of works of art to one another in terms of history, aesthetics, and culture, justifying conclusions made in the analysis and using such conclusions to inform their own art making.
Achievement Standard, Advanced:
*Students analyze and interpret artworks for relationships among form, context, purposes, and critical models, showing understanding of the work of critics, historians, aestheticians, and artists.
*Students analyze common characteristics of visual arts evident across time and among cultural/ethnic groups to formulate analyses, evaluations, and interpretations of meaning.

Content Standard #5: Reflecting upon and assessing the characteristics and merits of their Work and the work of others.
Achievement Standard, Proficient:
*Students identify intentions of those creating artworks, explore the implications of various purposes, and justify their analyses of purposes in particular works.
*Students describe meanings of artworks by analyzing how specific works are created and how they relate to historical and cultural contexts.
*Students reflect analytically on various interpretations as a means for understanding and evaluating works of visual art.
Achievement Standard, Advanced:
*Students correlate responses to works of visual art with various techniques for communicating meanings, ideas, attitudes, views, and intentions.

Content Standard #6: Making connections between visual arts and other disciplines.
Achievement Standard, Proficient:
*Students compare the materials, technologies, media, and processes of the visual arts with those of other arts disciplines as they are used in creation and types of analysis.
*Students compare characteristics of visual arts within a particular historical period or style with ideas, issues, or themes in the humanities or sciences.
Achievement Standard, Advanced:
*Students synthesize the creative and analytical principles and techniques of the visual arts and selected other arts disciplines, the humanities, or the sciences.

SIX TRAIT CURRICULUM

The Johnson County Central Public School District endorses and implements the Six Traits model of writing instruction and assessment. It is an ongoing expectation that all faculty members will implement the mode of language instruction in their classroom.

IDEAS - The writer's primary message, point of story, showing details and clarity.
ORGANIZATION - Putting information into an order that show direction and purpose.
VOICE - Includes the expression of a writer's personality; an awareness of the intended audience; and a skillful blend of detail, enthusiasm, and knowledge of the topic.
WORD CHOICE - Selecting, identifying, and reviewing specific descriptive language.
SENTENCE FLUENCY - Smooth writing patterns and rhythmic flow of language.
CONVENTIONS - Using appropriate editing and presentation skills.

Criteria For Evaluation And Assessments:

1. Use district assessment form to implement six trait writing in the classroom.
2. Put visual aide materials up in the classroom to promote the six traits.
3. Administer appropriate rubrics and assessments.

MULTICULTURAL EDUCATION

The instructional program at Johnson County Central Public Schools incorporates multicultural education in all curriculum areas at all grades. Multicultural education includes, but is not limited to, studies relative to culture, history, and contributions of African Americans, Hispanic Americans, Native Americans, Asian Americans and European Americans with special emphasis on human relations and sensitivity toward all races.

Criteria For Evaluation And Assessments:

1. A district assessment form is used to document multicultural education in the classroom.
2. An annual status report is provided to the local board of education.
3. Perpetuate exploration of cultural influence in creating individual artwork.

ART PRODUCTION:

Focus on personal development of advanced techniques and skills to create an art portfolio for employment or entry into degree art program. Contract art productions using specific goals of exploration and or mastery of a variety of media, techniques, design principles, elements, and types. Develop weekly written goal sheets / lesson objectives, and keep a daily journal of all experiences involving art class.

Expose students to a variety of Art related occupations, encourage job shadowing, and specific participation in art vocations.

DEVELOP INDIVIDUAL EXPERTISE OR EXPLORATION IN SPECIFIC AREAS OF ADVANCED TECHNIQUES, ART PRODUCTION METHODS, MEDIA:

Printmaking, drawing, painting, calligraphy, graphic design (Photoshop), illustration, fiber art, surface design illustration, linear perspective, pottery, sculpture

DESIGN ELEMENTS: (PRODUCE DESIGNS UTILIZING DESIGN ELEMENTS).

Line: create depth, repetition to create pattern, line qualities, line directions.
Shape: geometric / organic
Color: color wheel theory, mixing colors, color plans
Value: generating value with pressure, tints and shade painting
Texture: three types, actual, simulated, invented
Space: occupied / unoccupied

DESIGN PRINCIPLES (CREATE DESIGNS DEMONSTRATING DESIGN PRINCIPLES).

- Pattern
- Balance & Unity
- Contrast
- Rhythm and Movement

3 TYPES OF DESIGN (CREATE DESIGNS REPRESENTATIVE OF DESIGN TYPES)

- Realistic (direct observations using linear perspective)
- Abstract
- Non-objective

ART APPRECIATION:

Expose students to a variety of art occupations and artists' works via, Art reproductions, Art Museums, reading materials; *Scholastic Art Magazine*, web-quests, worksheets, power point presentations and other published articles.

Sketch book assignments will be assigned to foster individual creativity and subject choice. One hours worth of work, outside of scheduled art class time, will be journaled and turned in bi-weekly.

To foster appreciation by understanding and respecting artwork from a variety of cultures, art forms, techniques, functions (art as visual communication), artists' roles in society, and use of art in vocational career development.
To continue independent development of vocabulary to evaluate, categorize, compare and contrast works of art, critique and visually identify subject matter, design elements, principles, and types of design.

TITLE: GRAPHIC ART

(National visual arts standards, Six Trait Curriculum, Multicultural Education, and Art Appreciation same Art III)

RESOURCE MATERIALS: Adobe Photoshop tutorial soft ware, Adobe web site, Art reproductions, Art Museums, reading materials; *Scholastic Art Magazine*, web-quests, worksheets, power point presentations and other published articles.

CRITERIA FOR EVALUATION AND ASSESSMENT: Art production project grades, tests, discussions, writing assignments, multiple rubrics, group and individual activities, presentation of projects, physical demonstration of skills and techniques.

NATIONAL VISUAL ARTS STANDARDS: *(SAME AS ART III)*

Content Standard #1: Understanding and applying media, techniques, and processes *Achievement Standard, Proficient:*

- Students apply media, techniques, and processes with sufficient skill, confidence, and sensitivity that their intentions are carried out in their artworks
- Students conceive and create works of visual art that demonstrate an understanding of how the communication of their ideas relates to the media, techniques, and processes they use
- Students communicate ideas regularly at a high level of effectiveness in at least one visual arts medium
- Students initiate, define, and solve challenging visual arts problems independently using intellectual skills such as analysis, synthesis, and evaluation
-

Content Standard #2: Using knowledge of structures and functions

Achievement Standard, Proficient:

- Students demonstrate the ability to form and defend judgments about the characteristics and structures to accomplish commercial, personal, communal, or other purposes of art
- Students evaluate the effectiveness of artworks in terms of organizational structures and functions
- Students create artworks that use organizational principles and functions to solve specific visual arts problems
- Students demonstrate the ability to compare two or more perspectives about the use of organizational principles and functions in artwork and to defend personal evaluations of these perspectives
- Students create multiple solutions to specific visual arts problems that demonstrate competence in producing effective relationships between structural choices and artistic functions

Content Standard #3: Choosing and evaluating a range of subject matter, symbols, and ideas *Achievement Standard, Proficient:*

- Students reflect on how artworks differ visually, spatially, temporally, and functionally, and describe how these are related to history and culture
- Students apply subjects, symbols, and ideas in their artworks and use the skills gained to solve problems in daily life
- Students describe the origins of specific images and ideas and explain why they are of value in their artwork and in the work of others
- Students evaluate and defend the validity of sources for content and the manner in which subject matter, symbols, and images are used in the students' works and in significant works by others

Content Standard #4: Understanding the visual arts in relation to history and cultures

Achievement Standard, Proficient:

- Students differentiate among a variety of historical and cultural contexts in terms of characteristics and purposes of works of art
- Students describe the function and explore the meaning of specific art objects within varied cultures, times, and places
- Students analyze relationships of works of art to one another in terms of history, aesthetics, and culture, justifying conclusions made in the analysis and using such conclusions to inform their own art making
- Students analyze and interpret artworks for relationships among form, context, purposes, and critical models, showing understanding of the work of critics, historians, aestheticians, and artists
- Students analyze common characteristics of visual arts evident across time and among cultural/ethnic groups to formulate analyses, evaluations, and interpretations of meaning

Content Standard #5: Reflecting upon and assessing the characteristics and merits of their work and the work of others

Achievement Standard, Proficient:

- Students identify intentions of those creating artworks, explore the implications of various purposes, and justify their analyses of purposes in particular works
- Students describe meanings of artworks by analyzing how specific works are created and how they relate to historical and cultural contexts
- Students reflect analytically on various interpretations as a means for understanding and evaluating works of visual art
- Students correlate responses to works of visual art with various techniques for communicating meanings, ideas, attitudes, views, and intentions

Content Standard #6: Making connections between visual arts and other disciplines

Achievement Standard, Proficient:

- Students compare the materials, technologies, media, and processes of the visual arts with those of other arts disciplines as they are used in creation and types of analysis
- Students compare characteristics of visual arts within a particular historical period or style with ideas, issues, or themes in the humanities or sciences
- Students synthesize the creative and analytical principles and techniques of the visual arts and selected other arts disciplines, the humanities, or the sciences

Six Trait Curriculum: Same as Art III

Art Production:

Graphic design is the process of communicating visually using text and images to present information. Graphic Art is an introduction to exploring drawing and photo manipulation on the computer. Adobe Photoshop will be used. Assignments will strengthen the basic tools of the programs and provide the opportunity for students to apply principles of graphic design to enhance visual communication personally and commercially. Projects will include self-portraits, logos, flyers, package design, brochures, CD covers, illustrations, and typography.

Develop expertise using a variety of design, software techniques and graphic art production methods:

Understand how media, techniques, and processes are used in creating works of visual communication.
Explore basic software applications, Adobe Photoshop.

Learn basic principles of graphic design and digital photography
Create works of visual art that demonstrate how their ideas relate to graphic design personally and commercially; in the work place and marketplace.
Apply sufficient skills in design and software program application in the areas of, topography, principles of design, color theory, photography and advertising design
Use materials, tools, and artwork in a safe and responsible manner.
Projects: Magazine cover self portraits, personal and commercial logo designs, design and layout of informational flyers, business cards, package designs, brochures, CD covers, Illustrations for digital story telling, art of topography.
Design elements; (produce designs utilizing design elements)

- Line: create depth, repetition to create pattern, line qualities, line directions,
- Shape: geometric / organic
- Color: color wheel theory, mixing colors, color plans
- Value: generating value with pressure, tints and shade painting
- Texture: three types, actual, simulated, invented
- Space: occupied / unoccupied

Design Principles (create designs demonstrating design principles)

- Pattern
- Balance & Unity
- Contrast
- Rhythm and Movement

3 types of design (create designs representative of design types)

- Realistic (direct observations using linear perspective)
- Abstract
- Non-objective / nonrepresentational

TITLE: **PRINCIPALS OF ENGINEERING**
GRADE: **10^{TH}-12^{TH}**

RESOURCE MATERIALS: Transportation Energy and Power Technology by Anthony E. Schwaller, Modern Automobile Mechanics.

CRITERIA FOR EVALUATION AND ASSESSMENT: Quality of work, lab work, papers, quizzes, tests, research papers and work as member of group.

SIX TRAIT CURRICULUM

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IDEAS- The writer's primary message, point of story, showing details and clarity.
ORGANIZATION- Putting in formation into an order that shows direction and purpose.
VOICE- Includes the expression of a writer's personality; an awareness of the intended audience: and a skillful blend of detail, enthusiasm, and knowledge of the topic.
WORD CHOICE- Selecting, identifying and revising specific descriptive language.
SENTENCE FLUENCY – Smooth writing patterns and rhythmic flow of language.
CONVENTIONS- Using appropriate editing and presentation skills.

Criteria For Evaluation And Assessments:

1. Use district assessment form to implement six traits writing.
2. Put visual aide materials up in the classroom to promote the six traits.
3. Administer appropriate rubrics and assessments.

MULTICULTURAL EDUCATION

The instructional program at Johnson County Central Public Schools incorporates multicultural education in all curriculum areas at all grades. Multicultural education includes, but is not limited to studies relative to the culture, history, and contribution African Americans, Hispanic Americans, Native Americans, Asian Americans, and European Americans with special emphasis on human relations and sensitivity toward all races.

Criteria For Evaluation and Assessments:

1. A district assessment form is used to document multicultural education in the classroom.
2. An annual status report is provided to the local board of education

UNIT I: INTRODUCTION

1. Designs
    a. 3 or 4 wheel
    b. Material to be used
    c. Set up – lay down style
    d. Front or rear steer

UNIT II: AERODYNAMICS

1. Drag coefficient
2. Flow conditions
3. Reference area
4. Properties of air
5. Projects
    a. Drawing of car to scale
    b. Making of scale model
    c. Testing of scale model
    d. Selection of model to be built

UNIT III: FRAME

1. Basics of engineering
2. Drawings of frame
3. Production of model frames
4. Selection of frame
5. Production of full size mock-up
6. Production of frame for car

UNIT IV:

1. Selection of wheels
    a. Attachment to car
    b. Alignment of wheels
    c. Building front end alignment frame
2. Selection of brakes
    a Disc, drum, band
    b. Hydraulic or mechanical
    c. Axles and brake systems

UNIT V: STEERING

1. Selection of Configuration
2. Steering systems and parts
    a. Ackerman angle
    b. Kingpin inclination
    c. Toe, caster, camber

UNIT VI: CENTER OF BALANCE

1. Finding total weight of car
2. Compute how to shift weight correctly (amount on front wheels)
3. Locating wheels, steering, batteries, controller, driver

UNIT VII: MOTOR MOUNT

1. Selection of drive type
2. Attaching motor to frame
    a. Adjusting the motor

UNIT VIII: BATTERIES AND WIRING

1. Selection of battery
2. Battery testing under load
3. Wiring of car
    a. Motor, controller, fuse, shutoff
    b. External shut off

UNIT VIIII: BODY

1. Selection of material
2. Building body of car
3. Painting

UNIT X: TESTING

1. Driving car
    a. Off ground
    b. Slow test
    c. Testing at speed
    d. Selection and test of different gears combinations
2. Racing the car at approved OPPD races

TITLE: **ENGINEERING DESIGN & DEVELOPMENT**
GRADE: **11TH-12TH**

RESOURCE MATERIALS: Transportation Energy and Power Technology by Anthony E. Schwaller, Modern Automobile Mechanics.

CRITERIA FOR EVALUATION AND ASSESSMENT: Quality of work, lab work, papers, quizzes, tests, research papers and work as member of group.

SIX TRAIT CURRICULUM

The Johnson County Central Public School District endorses and implements the Six Traits model of writing instructions and assessment. It is an ongoing expectation that all faculty members will implement this mode of language instruction in their classroom.

IDEAS- The writer's primary message, point of story, showing details and clarity.
ORGANIZATION- Putting in formation into an order that shows direction and purpose.
VOICE- Includes the expression of a writer's personality; an awareness of the intended audience: and a skillful blend of detail, enthusiasm, and knowledge of the topic.
WORD CHOICE- Selecting, identifying and revising specific descriptive language.
SENTENCE FLUENCY – Smooth writing patterns and rhythmic flow of language.
CONVENTIONS- Using appropriate editing and presentation skills.

Criteria For Evaluation And Assessments:

1. Use district assessment form to implement six traits writing.
2. Put visual aide materials up in the classroom to promote the six traits.
3. Administer appropriate rubrics and assessments.

MULTICULTURAL EDUCATION

The instructional program at Johnson County Central Public Schools incorporates multicultural education in all curriculum areas at all grades. Multicultural education includes, but is not limited to studies relative to the culture, history, and contribution African Americans, Hispanic Americans, Native Americans, Asian Americans, and European Americans with special emphasis on human relations and sensitivity toward all races.

Criteria For Evaluation and Assessments:

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UNIT I: INTRODUCTION

1. Designs
    a. 3 or 4 wheel
    b. Material to be used
    c. Set up – lay down style
    d. Front or rear steer

UNIT II: AERODYNAMICS

1. Drag coefficient
2. Flow conditions
3. Reference area
4. Properties of air
5. Projects
    a. Drawing of car to scale
    b. Making of scale model
    c. Testing of scale model
    d. Selection of model to be built

UNIT III: FRAME

1. Basics of engineering
2. Drawings of frame
3. Production of model frames
4. Selection of frame
5. Production of full size mock-up
6. Production of frame for car

UNIT IV:

1. Selection of wheels
    a. Attachment to car
    b. Alignment of wheels
    c. Building front end alignment frame
2. Selection of brakes
    a Disc, drum, band
    b. Hydraulic or mechanical
    c. Axles and brake systems

UNIT V: STEERING

1. Selection of Configuration
2. Steering systems and parts
    a. Ackerman angle
    b. Kingpin inclination
    c. Toe, caster, camber

UNIT VI: CENTER OF BALANCE

1. Finding total weight of car
2. Compute how to shift weight correctly (amount on front wheels)
3. Locating wheels, steering, batteries, controller, driver

UNIT VII: MOTOR MOUNT

1. Selection of drive type
2. Attaching motor to frame
    a. Adjusting the motor

UNIT VIII: BATTERIES AND WIRING

1. Selection of battery
2. Battery testing under load
3. Wiring of car
    a. Motor, controller, fuse, shutoff
    b. External shut off

UNIT VIIII: BODY

1. Selection of material
2. Building body of car
3. Painting

UNIT X: TESTING

1. Driving car
    a. Off ground
    b. Slow test
    c. Testing at speed
    d. Selection and test of different gears combinations
2. Racing the car at approved OPPD races

UNIT XI: SMALL ENGINES

1. Identify application of small engines in use today
2. State the design variables used in small engines
3. Identify the purpose and operation of various small engine systems
4. Identify the various service procedures and troubleshooting on small engines

UNIT XII: BASIC AUTO MECHANICS

1. Identify basic engine systems on a modern automobile
2. Identify various maintenance tasks that can be performed
3. Identify when maintenance is required
4. Check fluid levels and leaks
5. Check belt and hoses
6. Identify difference in major and minor tune-ups
7. List safety precautions when working on cars
8. Identify importance of proper maintenance

TITLE: **MANUFACTURING WOODS**
GRADE: **9TH-12TH**

RESOURCE MATERIALS: Woodworking technology, texts-Hammond, Donnelly, Harrod and Rayner.

CRITERIA FOR EVALUATION AND ASSESSMENT: Workbook assignments, quiz, tests, lab work, quality of work, use of time and proper use of equipment.

SIX TRAIT CURRICULUM

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WORD CHOICE- Selecting, identifying and revising specific descriptive language.
SENTENCE FLUENCY – Smooth writing patterns and rhythmic flow of language.
CONVENTIONS- Using appropriate editing and presentation skills.

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UNIT I: WOOD AND WOOD MATERIALS

1. Identify different types of woods
2. Explain properties relating to woods
3. Explain how a tree grows and how it affects working with each type of wood
4. Explain terms relating to grading of woods
5. Identify and explain how to work with defects found in wood
6. Explain how lumber is figured for resale
7. Identify different types of manufactured boards
8. Explain different properties and uses of manufactured boards

UNIT II: GETTING THE STOCK OUT

1. Identify different types of measuring tools and their uses
2. Explain how tools are classified
3. Explain how to lay out shapes and forms
4. Draw or locate a set of plans to work from a project

UNIT III: TOOLS AND SAFETY

1. Identify different types of hand tools, and their uses
2. Identify different types of power tools
3. Explain how to properly adjust power tools
4. Explain operational features of power tools
5. Develop good general safety practices
6. Explain procedures used for good tool maintenance

UNIT IV: JOINTS, DECORATING, AND CABINETMAKING

1. Identify different types of woodworking joints
2. Explain properties of each type of joint
3. Explain how to construct each type of joint

UNIT V: FINISHING

1. Explain how to prepare a project for finishing
2. Identify various types of sandpaper and their uses
3. List different types of stains
4. Explain advantages and disadvantages of various stains
5. Explain different methods of applying stains
6. List various types of finishes
7. Explain properties of different finishes
8. Explain how each finish should be applied for best results
9. Explain how to use abrasive flours
10. Explain how to use waxes
11. Explain a finish schedule for closed woods
12. Explain a finish schedule for open grained woods

UNIT VI: LAB DESIGN AND PRODUCTION OF A PROJECT

1. To achieve competence in the care and use of equipment in woodworking, by using tools and machines in the performance of basic woodworking skills.
2. To acquire the ability to read and work from plans.
3. To develop self-discipline, self-confidence, self-reliance, resourcefulness, and independence.
4. To enable students to plan their work in an orderly procedure toward the completion of a task.
5. To develop the ability to recognize good design and workmanship.
6. To develop the ability to select, care for, and use industrial products.
7. To understand some of the career opportunities in industry.
8. To develop pride in work and the ability to evaluate one's own accomplishments objectively.
9. To develop the ability to express oneself creatively by designing and building simple projects.
10. To discover vocational interests that will contribute to worthy use of leisure time.
11. To develop proper attitudes and practices concerning health and safety.

PROJECT REQUIREMENTS:

1. A furniture piece
2. Use case construction
3. Have one moving part

TITLE: **ADVANCE MANUFACTURING WOODS**
GRADE: **10^{TH}-12^{TH}**

RESOURCE MATERIALS: Woodworking technology, texts-Hammond, Donnelly, Harrod and Rayner.

CRITERIA FOR EVALUATION AND ASSESSMENT: Workbook assignments, quiz, tests, lab work, quality of work, use of time and proper use of equipment.

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6. Explain procedures used for good tool maintenance

UNIT IV: JOINTS, DECORATING, AND CABINETMAKING

1. Identify different types of woodworking joints
2. Explain properties of each type of joint
3. Explain how to construct each type of joint
4. Explain joints required for table construction
5. Explain joints required for drawer for construction
6. Explain terms related to cabinetmaking
7. Identify different types of design of furniture
8. Identify various types of decorations applied to wood
9. Explain how to use veneers, inlays, and insets
10. Explain how woods may be bent into different shapes
11. Explain how to apply plastic laminates
12. Identify different types of clamps
13. Explain how nails and screws are classified and used
14. Identify various types of hardware used in woodworking
15. Explain the differences in various types of glue

UNIT V: FINISHING

1. Explain how to prepare a project for finishing
2. Identify various types of sandpaper and their uses
3. List different types of stains
4. Explain advantages and disadvantages of various stains
5. Explain different methods of applying stains
6. List various types of finishes
7. Explain properties of different finishes
8. Explain how each finish should be applied for best results
9. Explain how to use abrasive flours
10. Explain how to use waxes
11. Explain a finish schedule for closed woods
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2. To acquire the ability to read and work from plans.
3. To develop self-discipline, self-confidence, self-reliance, resourcefulness, and independence.
4. To enable students to plan their work in an orderly procedure toward the completion of a task.
5. To develop the ability to recognize good design and workmanship.
6. To develop the ability to select, care for, and use industrial products.
7. To understand some of the career opportunities in industry.
8. To develop pride in work and the ability to evaluate one's own accomplishments objectively.
9. To develop the ability to express oneself creatively by designing and building simple projects.
10. To discover vocational interests that will contribute to worthy use of leisure time.
11. To develop proper attitudes and practices concerning health and safety.

PROJECT REQUIREMENTS:

1. A furniture piece
2. Make use of at least one cnc machine
3. Have at least two different types of moving parts
4. Must include at least 2 of the following joints, cuts or construction procedures:
    - A. Mortise and tendon joint
    - B. Dovetail joint
    - C. Raised panel construction
    - D. Drawer using hardware slides
    - E. Roll top
    - F. Have an inlay or veneer applied by student
    - G. Use a cope molding
    - I. Use a laminate
    - J. Use bent wood
    - K. Use a decorative leg

TITLE: **TECHNOLOGY EDUCATION**
GRADE: **9TH-12TH**

RESOURCE MATERIALS: Industrial Art Woodworking – Feirer

CRITERIA FOR EVALUATION AND ASSESSMENT: Quality of work, quizzes, tests, quality of project, lab grade and workbook units.

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UNIT I: DRAFTING
At the end of the unit the student will be able to:

1. Use the following equipment:

pencils	ruler	French curve
compass	lettering guide	30-60 triangle t-square
erasing	shield	45 triangle

2. Use capital letters to provide information on drawings.
3. Identify and use correctly the following lines:

visible object	hidden object
center lines	extension lines
boarder lines	leaders
dimension lines	guide lines

4. Draw arc tangent to 2 lines.
5. Draw arc tangent to 2 circles.
6. Draw arc tangent to a line and an arc.
7. Divide a line into equal parts.
8. Center a drawing with up to 3 views.
9. Draw an orthographic drawing.
10. Dimension and orthographic drawing.

UNIT II: WOODWORKING

At the end of the unit the student will be able to:

1. Make out a bill of materials.
2. Write a plan of procedure.
3. Know the rules for safe operation and range of work for the following hand tools:

band saw	drill press	drill
hand drill	brace	rip saw
disc sander	port. drill	crosscut saw
back saw	coping saw	keyhole saw
smooth plane	jack plane	block plane
try square	combination square	screwdrivers

4. The student will learn the rules for safe operation and know the range of work that can be done by each of the power tools in the shop.

UNIT III: OBJECTIVES:

1. Identify increments on a ruler
2. Calculate the cost of materials
3. Complete the required study guides
4. Spell the terms for each area
5. Complete a project planning sheet
6. Identify different wood types
7. Identify a display of hand tools
8. Layout a project
9. Demonstrate correct tool usage
10. Identify mechanical fasteners
11. Identify abrasive materials
12. Complete a pad seat
13. Follow proper abrading techniques
14. Square a piece of stock using machines
15. Identify different building materials
16. Identify wood joints
17. Describe the basic finishing steps
18. Explain different methods of applying finishes
19. Read a working drawing
20. Make a bill of materials
21. Plan the procedure in doing jobs
22. Using a marking gauge
23. Test for squareness
24. Adjust and use a plane
25. Finish outside curves
26. Finish inside curves
27. Drill holes in wood
28. Trim or pare with a chisel

29. Shape ends and edges with a file
30. Drive and set nails
31. Layout and set angles with t-bevel
32. Clamp-up stock
33. Apply stain
34. Clean and care for brushes
35. Apply wax
36. Transfer a design
37. Smooth a surface using a scraper
38. Cut a dado
39. Glue up work
40. Make an edge to edge joint
41. Apply varnish
42. Make a dowel joint

UNIT IV: LAB OBJECTIVES:

1. Achieve competence in the care and use of equipment in woodworking by using tools and machines in the performance of basic woodworking skills.
2. Acquire the ability to read and work from plans.
3. Develop self-discipline, self-confidence, self-reliance, resourcefulness, and independence.
4. Plan the work in an orderly procedure toward completion of a task.
5. Develop the ability to select, care for, and use industrial products.
6. Develop the ability to recognize good design and workmanship.
7. Understand the career opportunities in industry.
8. Develop pride in work.
9. Evaluate one's own accomplishments objectively.
10. Develop the ability to express oneself creatively by designing and building a simple project.
11. Develop a readiness to assist others.
12. Join in a group undertaking.
13. Develop proper attitudes and practices concerning health and safety.
14. Discover vocational interests that will contribute to worthy use of leisure time.

UNIT V: FURTHER OBJECTIVES:

1. Identify and produce the following cuts and joints:

ripping	crosscutting	dado
groove	rabbet	tendon
taper	miter	bevel
jointing	surfacing	drilling
mortise	abrading	butt

2. Produce the following joining operations:
   - doweling
   - mechanical fasteners
   - gluing
3. Produce the following finishing operations:

filling	texturing
sealing	top coating
staining	waxing

UNIT VI: SHEETMETAL AND BENCHMETAL

1. Use parallel-line and radial line developments.
2. Use measuring and layout tools.
3. Cut using hand tools.
4. Drill with both hand and electric drills.
5. Form and bend metal.
6. Draw and straight file.
7. Use abrasives.
8. Use of rivets.
9. Solder
10. To know the future employment opportunities in metalworking.
11. To know if metalworking would be a possible career.
12. Know the steps involved in project design.
13. Know the elements involved in project design.
14. Identify different types of metals.
15. Know proper attitudes for lab work.
16. How to maintain a working shop.
17. Know the steps in laying out a project.
18. Identify tools.
19. Know parts and types of files.
20. How to layout metal to be bent.
21. How to select and identify sandpaper.
22. Know types of snips used to cut metal.
23. Know how solder and equipment is sold.
24. Types of chisels.
25. Parts and types of files.
26. Parts and types of drill bits.
27. How to layout metal to be bent.
28. How to select and identify sandpaper.
29. The parts of a thread.
30. The difference between thread types.
31. How to identify thread pitches.
32. How to identify different types of rivet shapes and their uses.
33. How to identify types of nuts, bolts, screws, and washers.
34. How to identify types of sheet metal.
35. Types of snips used to cut metal.
36. How rivets are sold.
37. How screws, nuts, and bolts are sold.
38. How solder and equipment is sold.

TITLE: **INDUSTRIAL MANUFACTURING & ENGINEER (1ST SEMESTER) INTRODUCTION TO ARCHITECTURE TECHNOLOGY (2ND SEMESTER)**
GRADE: **9TH-12TH**

RESOURCE MATERIALS: Mechanical Drawing French, Svensen, Helsel and Urbanic. Architecture Residential Drawing and Design by Clois E. Kicklighter.

CRITERIA FOR EVALUATION AND ASSESSMENT: Quality of drawings, quality of worksheets, quizzes and tests.

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1ST SEMESTER
UNIT I: INTRODUCTION

1. To develop an understanding of the history of drafting.
2. To list careers in drafting and education required for each.
3. Identify the equipment used in the class.
4. To understand the use of each piece of equipment.
5. Identify each of the line in the alphabet of lines and their use and how to draw them.
6. To explain which lead is used for each type of line.
7. To develop the skill needed to letter neatly.

UNIT II: GEOMETRIC CONSTRUCTION

1. To explain how to divide a line in equal parts.
2. To use equipment in production of parallel lines.
3. To use equipment to construct perpendicular lines.
4. Identify and construct geometric figures.
5. Explain how to construct various types of tangents.
6. Combine objectives to produce a drawing.

UNIT III: MULTI-VIEWS

1. To explain the relationship between views.
2. To use projection to complete remaining views
3. To use the alphabet of line correctly.
4. Identify which view should be positioned in each spot.
5. Explain the process of centering drawings.
6. To develop a systematic method of making a drawing.

UNIT IV: SECTIONAL VIEWS

1. To explain use types to lines needed for sectional drawings.
2. Identify and use various types of sectional views.
    A. Full section
    B. Half section
    C. Removed section
    D. Revolved section
    E. Offset section
    F. Aligned section
    G. Broken-out section

UNIT V: PICTORIAL DRAWINGS

1. Identify and use of different types of isometric drawings.
2. To develop skill using a perspective board.
3. To develop skill at dimensioning isometric drawings.
4. To identify the proper positioning for axis on drawings.

UNIT VI: MULTI-VIEWS DIMENSIONS

1. To explain use of size dimensions.
2. To explain use of location dimensions.
3. Identify the correct use of notes on a drawing.
4. Identify correct use of lines and symbols.
5. Explain the difference in various types of dimensioning.
6. To develop an understanding of each of the general rules for dimensioning.

2ND SEMESTER

UNIT VII: INTRODUCTION ARCHITECTURAL STYLES

1. Identify different types of architectural styles.
2. Explain various types of home designs.
3. List considerations to check before building.
4. List requirements for sleeping area.
5. List requirements for living area.
6. Able to establish estimated value of homes.
7. Explain different ways of financing a home.
8. List possible careers related to architecture and home building.

UNIT VIII: FOUNDATION PLAN

1. Identify different types and parts of foundations for buildings.
2. Explain how foundations are laid out and built.
3. Explain use of beams in foundation construction.
4. Able to correctly dimension a foundation.
5. Identify increments on an architectural scale.
6. Explain how concrete products are sold.

UNIT IX: STAIR DETAIL

1. Identify different types of Stair layouts.
2. Explain terms relating to stairs.
3. Explain how to design a set of stairs.
4. Explain housing code rules for stair construction.

UNIT X: FLOOR PLAN

1. Identify different types of framing systems.
2. Identify basic floor framing members.
3. Identify basic wall framing members.
4. Identify basic ceiling framing members.
5. Identify various types of doors.
6. Explain housing standards for doors.
7. Identify different types of windows.
8. Able to use proper symbols and dimension techniques.

UNIT XI: ELEVATIONS

1. Identify different types of roof designs.
2. Explain terms relating to roofs.
3. Identify basic roof framing members.
4. Explain how framing members are connected when building.

TITLE: **INTRODUCTION TO ENGINEERING DESIGN**
GRADE: **10^{TH}-12^{TH}**

RESOURCE MATERIALS: Cad-Tutor

CRITERIA FOR EVALUATION AND ASSESSMENT: Quality of work, tests, quizzes and lab grade.

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UNIT I: CAD CONCEPTS AND PRINCIPALS

1. Demonstrate a working knowledge of basic principals, concepts, and vocabulary.
2. Understand the menu structure.
3. Understand drawing file management.
4. Understand basic hardware.
5. Demonstrate proper handling of diskettes.

UNIT II: USING THE ADD MENU

1. Use the function keys.
2. Draw lines, polygons, points, and circles.
3. Use the properties command.
4. Use the zoom commands.
5. Use the modify commands.

UNIT III: USE THE MODIFY MENU

1. Add arcs, ellipses, and curves.
2. Use the copy, move, scale, and rotate commands.
3. Use the printer and plotter for output.

UNIT IV: DRAWINGS

1. Use text on the drawings.
2. Use of the grids and snap commands.
3. Use basic construction commands.
4. Use the group function.

UNIT V: DIMENSIONING WITH CAD

1. Use the option on the dimension menu.
2. Create text paragraphs.

UNIT VI: PRODUCTION OF FULL SET OF WORKING DRAWINGS FOR NOTHING PROJECT

UNIT VII: SELECT PROJECT FROM PROJECT BOOK MAKING FULL SET OF PLANS

TITLE: **PRINCIPALS OF DESIGN & PRE-CONSTRUCTION**
GRADE: **11^{TH}-12^{TH}**

RESOURCE MATERIALS: Cad-Tutor by Sunyough Manuals

CRITERIA FOR EVALUATION AND ASSESSMENT: Quality of work, tests, quizzes and projects.

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UNIT I: ISOMETRICS AND PROJECTIONS

1. Convert 2d drawing into 3d.
2. Use of 3d drawing commands.

UNIT II: CREATING SYMBOL LIBRARIES

1. Use the option in the library menu.
2. Establish digitizing boundaries.
3. Use of Macro Keys.

UNIT III: CONVERSION OF DRAWINGS

1. Move drawings from one Cad System into other systems.

UNIT IV: OUTPUTS

1. Create slide shows of his or her work.
2. Use of density and pen options.

UNIT V: INDIVIDUAL PROJECT

1. Required to complete a series of drawings. The project will include an exploded drawing.

NOTE: Project will be set up by both the instructor and student. The Cad system used will be determined by both the student and the instructor.

TITLE: **MANUFACTURING WELDING**
GRADE: **9TH-12TH**

RESOURCE MATERIALS:

CRITERIA FOR EVALUATION AND ASSESSMENT: Quality of work, quizzes and tests.

SIX TRAIT CURRICULUM

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WORD CHOICE- Selecting, identifying and revising specific descriptive language.
SENTENCE FLUENCY – Smooth writing patterns and rhythmic flow of language.
CONVENTIONS- Using appropriate editing and presentation skills.

Criteria For Evaluation And Assessments:

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OBJECTIVES: THE STUDENT WILL KNOW:

1. The future employment opportunities in metalworking.
2. If metalworking would be a possible career.
3. Steps involved in project design.
4. Elements involved in project design.
5. Identify different types of metals.
6. Understand properties of metals.
7. Proper attitudes for lab work.
8. How to maintain a working shop.
9. Steps in laying out a project.
10. Identification of tools.
11. Type of blades for a hacksaw.

UNIT I: ARC WELDING

The student will be able to:

1. Measure to the nearest 1/16th of an inch.
2. Proper use of personal safety equipment required to weld.
3. Prepare joints for welding.
4. Strike arcs.
5. Identify weld defects.
6. Identify angles associated with electrodes.
7. Run stringer beads with re-starts.
8. Produce parallel weave beads.
9. Produce single pass buildups.
10. Produce square butt joints.
11. Produce single pass lap joints (Position 2).
12. Produce single and multi-pass T-joints (Position 2).
13. Outside corner
14. Vertical up
15. Vertical down

The student will know how to:

1. Identify welding processes.
2. Identify hazards of the arc welding trades.
3. Describe the difference between welding, soldering, brazing.
4. Identify types of welds.
5. Identify types of joints.
6. Identify types of joint preparation.
7. Explain welding symbols.
8. Identify differences in power sources and their controls.
9. Explain each part of the welding circuit.
10. Explain the AWS classification of electrodes.
11. Define terms associated with electrodes.
12. Explain the positions for making welds.
13. Select electrodes for a given job.

UNIT II: OXYACETYLENE WELDING

The student will be able to:

1. Properly use personal safety equipment.
2. Set up, light a torch, and shut down oxyacetylene equipment.
3. Demonstrate both forehand and backhand welding.
4. Puddle on thin steel.
5. Run a bead using filler rod.
6. Produce a butt weld with thin metal and thick steal
7. Produce an outside corner weld.
8. Produce a lap weld.
9. Produce a fillet weld.
10. Vertical bead.
11. Vertical fillet.
12. Use a cutting torch.
13. Use plasma cutter

The student will know how to:

1. Identify hazards of the oxyacetylene welding trade.
2. Understand units of measure associated with welding.

3. Take measurements from a plan to build a project.
4. Identify different valves used.
5. Explain gasses are produced for welding.
6. Identify different types of welding gases.
7. Identify the cylinders used for each type of gas.
8. Care for the cylinders.
9. Identify part of a torch body.
10. Explain the differences in welding tips.
11. Identify and explain uses of each of the types of flames.
12. Test welds for strength.
13. Identify defects in welds that are produced.
14. Explain terms associated with oxyacetylene welding.
15. Identify possible careers in welding.

TITLE: **MANUFACTURING ADVANCED WELDING**
GRADE: **10TH-12TH**

RESOURCE MATERIALS: Oxyacetylene Welding 1980 Baird, Arc Welding 1981 Walker, Gas Metal Arc Welding 1988 William H. Minnick, Casting process, Metalworking 1968 Boyd.

CRITERIA FOR EVALUATION AND ASSESSMENT: Quality of welds, lab grade, quizzes and tests.

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SENTENCE FLUENCY – Smooth writing patterns and rhythmic flow of language.
CONVENTIONS- Using appropriate editing and presentation skills.

Criteria For Evaluation And Assessments:

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UNIT I: OXYACETYLENE WELDING
The student will be able to:

1. Properly use personal safety equipment.
2. Set up, light a torch, and shut down oxyacetylene equipment.
3. Demonstrate both forehand and backhand welding.
4. Produce horizontal butt weld.
5. Produce horizontal fillet weld.
6. Vertical butt weld.
7. Vertical fillet weld.
8. Use a butting torch.

The student will know how to:

1. Identify hazards of the oxyacetylene welding trade.
2. Understand units of measure associated with welding.
3. Take measurements from a plan to build a project.
4. Identify different valves used.
5. Explain gases are produces for welding.
6. Identify different types of welding gases.
7. Identify the cylinders used for each type of gas.
8. Care for the cylinders.
9. Identify part of a torch body.
10. Explain the differences in welding tips.
11. Identify and explain uses of each of the types of flames.
12. Test welds for strength.
13. Identify defects in welds that are produced.
14. Explain terms associated with oxyacetylene welding.
15. Identify possible careers in welding.

UNIT II: ARC WELDING

The student will be able to:

1. Measure to the nearest 1/16th of an inch.
2. Proper use of-personal safety equipment required to weld.
3. Prepare joints for welding.
4. Strike arcs.
5. Identify weld defects.
6. Identify tingles associated with electrodes.
7. Produce multi pass fillet.
8. Produce horizontal lap.
9. Produce single and multi-pass t-joints

The student will know how to:

1. Identify welding processes.
2. Identify hazards of the arc welding trades.
3. Describe the difference between welding, soldering, brazing.
4. Identify types of welds.
5. Identify types of joints.
6. Identify types of joint preparation.
7. Explain welding symbols.
8. Identify differences in power sources and their controls.
9. Explain each part of the welding circuit.
10. Explain the AWS classification of electrodes.
11. Define terms associated with electrodes.
12. Explain the positions for making welds.
13. Select electrodes for a given job.
14. Produce vertical up.
15. Produce vertical down.
16. Produce vertical butt.
17. Produce vertical fillet.

UNIT III: GAS METAL ARC WELDING

The student will be able to:

1. Measure to the nearest 1/16th of an inch.
2. Proper use of personal safety equipment required to weld.
3. Prepare joints for welding.
4. Strike arcs.
5. Identify weld defects.
6. Produce overhead bead.
7. Run stringer beads with re-starts.
8. Produce parallel weave beads.
9. Produce single pass buildups.
10. Produce square butt joints.
11. Produce single pass lap joints. (position 2)
12. Produce single and multi-pass T-joints. (position 2)

The student will know how to:

1. Identify welding processes.
2. Identify hazards of the arc welding trades.
3. Describe the difference between welding, soldering, brazing.
4. Identify types of welds.
5. Identify types of joints.
6. Identify types of joint preparation.
7. Explain welding symbols.
8. Identify differences is power sources and their controls.
9. Explain each part of the welding circuit.

UNIT IV: CASTING

The student will be able to:

1. Proper use of personal safety equipment required to weld.
2. Identify casting defects.
3. Produce acceptable castings using two piece molds.
4. Produce mold of students own design for casting.

The student will know how to:

1. Identify casting processes.
2. Identify hazards of the foundry industry.
3. Explain the process in industry to produce castings.

UNIT V: BRAZING

The student will be able to:

1. Measure to the nearest 1/16th of an-inch.
2. Use of' proper personal safety equipment required to braze.
3. Prepare joints for brazing.
4. Identify brazing defects.
5. Identify angles associated with torch and rod.
6. Run stringer beads.
7. Produce square butt joints.
8. Produce single pass lap joints. (position 2)
9. Produce fillet joints.

The student will know how to:

1. Identify brazing processes.

2. Describe the difference between welding, soldering, brazing.
3. Identify types of welds.
4. Identify types of joints.
5. Identify types of joint preparation.
6. Explain welding symbols.
7. Identify different valves used.
8. Explain gases are produced for welding.
9. Identify different types of welding gases.
10. Identify the cylinders used for each type of gas.
11. Care for the cylinders.
12. Identify part of a torch body.
13. Explain the differences in welding tips.
14. Identify and explain uses of each of the types of flames.
15. Test welds for strength.
16. Identify defects in welds that are produced.
17. Explain terms associated with oxyacetylene welding.
18. Identify possible careers in welding.

UNIT VII: GAS TUNGSTEN ARC WELDING

The student will be able to:

1. Properly identify and use safety equipment.
2. Set-up tig machine.
3. Identify parts of tig machine.
4. Produce bead without filler rod.
5. Produce bead with use of filler rod.
6. Produce butt weld.
7. Produce lap weld.
8. Produce vertical fillet.
9. Produce bead on aluminum.

TITLE: **COMPUTER INTEGRATED MANUFACTURING**
GRADE: **11th – 12th**

RESOURCE MATERIALS: Welding Skills 1994 R.T. Miller and manual supplied by Light Machines.

CRITERIA FOR EVALUATION AND ASSESSMENT: Quality of Welds and projects, lab grade, quizzes and tests.

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CONVENTIONS- Using appropriate editing and presentation skills.

Criteria For Evaluation And Assessments:

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3. Administer assessment of multicultural education at all six levels using Bloom's taxonomy.

UNIT I: ENGINE LATHE

The student will be able to:

1. Read a micrometer
2. Use of proper personal safety equipment
3. Prepare joints for brazing
4. Identify brazing defects
5. Identify dangles associated with torch and rod
6. Run stringer beads
7. Produce turnings to proper size within tolerance

8. Produce knurled handle
9. Face a surface
10. Adjust feed and speed rates
11. Grind bits required for different jobs
12. Change the feed reverse lever
13. Move the carriage back and forth by hand

The student will know how to:

1. Identify different tools used on the lathe
2. Explain use of backgear
3. Identify parts of the lathe
4. Identify defects in welds that are produced
5. Explain terms associated with machine work
6. Identify possible careers in machining

UNIT II: CNC MILL ROUTERING

1. Programming
2. Understand Cartesian system
3. Use of X, Y, and Z axes
4. Use of Quadrants
5. Use of polar system of points
6. Use of incremental system of points
7. Use of absolute system of points
8. Understand and use basic G codes
9. Able to write programs that require movement in all axes

UNIT III: MACHINE PROGRAMMING

1. Understand spectra/CAM
2. Basic file operations
3. Setting up a session
4. Selecting and using layers
5. Basic machine operations
    - A. Pocketing
    - B. Islands
    - C. Contouring
    - D. Facing
    - E. Engraving
    - F. Drilling
6. Production of a part using at least 4 of the basic operations

UNIT IV: CNC LATHE

1. Understand Cartesian system
2. Use of X, Y, AND Z axes
3. Use of Quadrants
4. Use of polar system of points
5. Use of incremental system of points
6. Use of absolute system of points
7. Understand and use basic G codes
8. Able to write programs that require movement in 2 axes
9. Production of a part from a student written program
10. Production of a part using CAD/CAM

UNIT V: PROJECT

Production of project of personal choice:

Project should include

1. Use of at least two different welding operations
2. Project should have moveable part
3. Project should be of lasting value to student

TITLE: **ENERGY**
GRADE: **10^{TH} – 12^{TH}**

RESOURCE MATERIAL: TRANSPORTATION ENERGY AND POWER TECHNOLOGY BY ANTHONY E. SCHWALLER

CRITERIA FOR EVALUATION AND ASSESSMENT: Lab grade and projects, quizzes and tests.

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UNIT 1 INTRODUCTION
OBJECTIVES
The student will know how to:
1 define transportation
2 describe the systems approach to studying technology
3 identify potential careers in transportation and power technology
4 identify the four major categories of transportation technology

UNIT 2 LAND TRANSPORTATION

OBJECTIVES

The student will be able to:

1 identify bus transportation systems
2 describe the uses of the automobile.
3 identify rail as a mode of land transportation.
4 examine recreational transportation modes.
5 define the importance of efficiency and cost of transportation vehicles.
6 identify different types of bridges.
7 research aerodynamic principals
8 design a co2 car to fit the given rules.
9 build a CO2 car for competion.
10 design a mousetrap vehicle
11 construct a mousetrap from materials provided.
12 construct model bridges as a member of a group.

ACTIVITIES TO BE USED:

1 construction of CO2 car
2 construction of mousetrap car
3 construction of model bridges.

UNIT 3 SMALL ENGINES

OBJECTIVES

The student will know how to:

1 identify application of small engines in use today.
2 state the design variables used in small engines.
3 identify the purpose and operation of various small engine systems.
4 identify various service procedures and troubleshooting on small engines.

ACTIVITIES TO BE USED:

1 Rebuilding of a Briggs and Stratton small engine.

UNIT 4 Basic Auto Mechanics

Text MODERN AUTOMOBILE MECHANICS

OBJECTIVES

The student will know how to:

1 identify basic engine systems on a modern automobile
2 identify various maintenance tasks that can be performed.
3 identify when maintenance is required.
4 check fluid levels and leaks
5 check belt and hoses
6 identify difference in major and minor tune-ups
7 list safety precautions when working on cars.
8 identify importance of proper maintenance.

ACTIVITIES TO BE USED:
1 basic engine maintenance and fluid service
2 tire and wheel service
3 starting system repairs
4 lubrication system testing and repair
5 change automatic transmission fluid and filter
6 perform oil & filter change and grease job
7 tune-up and repair operations

UNIT 5 ENERGY TECHNOLGY
COMPLETION TIME 5 WEEKS
CHAPTERS 9-14

OBJECTIVES
1. The student will know how to:
2. Identify major forms of energy
3., define terms used to measure energy
4. state relationship between supply and demand
5. trace flow of energy
6. production of coal and petrolem
7. solar payback

ACTIVITIES TO BE USED:
1. flow charts
2. mathematical problems
3. reading of meters
4. building of solar collectors and testing

UNIT 5 MARINE TRANSPORTATION
COMPLETION TIME 3 WEEKS
CHAPTERS 5-6

OBJECTIVES
The student will know how to:
1. identify needs and cost of marine transporation
2. define marine terms
3. identify major waterways

ACTIVITIES TO BE USED:
1. kite construction
2. building of sail boat

UNIT 6 AIR TRANSPORTATION
COMPLETION TIME 3 WEEKS
CHAPTERS 7-8

OBJECTIVES
The student will know how to:
1. state economic and social impacts of air transportation
2. define aviation industry
3. aviation principals
4. parts of aircraft

ACTIVITIES TO BE USED:
1. production of a glider

UNIT 7 SPACE TRANSPORTATION
COMPLETION TIME 3 WEEKS
CHAPTERS 8

OBJECTIVES
The student will know how to:
1. identify need for space transportation
2. define characteristics of space environment
3. define Newton's laws

ACTIVITIES TO BE USED:
1. production of model rockets and testing

TITLE: **APPLICATION IN CONSTRUCTION**
GRADE: **$10^{TH} – 12^{TH}$**

RESOURCE MATERIALS: Modern Carpentry by Willis Wagner - Home Maintenance by William Weiss

CRITERIA FOR EVALUATION AND ASSESSMENT: Lab work, Quality of work, papers, quizzes, tests and research papers, work as member of group

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3. Administer assessment of multicultural education at all six levels using Bloom's taxonomy.

Unit I: Preparing to Build

1. Building Materials
2. Hand tools
3. Leveling Instruments
4. Plans, Specifications and Codes

Unit II Footings and framing

1. Footing and Foundations
2. Floor Framing

3. Wall framing
4. Roof framing

Unit III Closing in

1. Roofing Materials
2. Windows and Exterior Doors
3. Exterior Wall finish

Unit V Finishing

1. Thermal and sound insulation
2. interior wall finishes
3. Floor finishes
4. Stair construction
5. Doors and interior Trims

Unit VI Care of Tools

1. Remove rust
2. Shapening tools
3. Replace handles

Unit VII Plumbing Repairs

1. Leaky Faucet
2. Toilet repair
3. Repair of Pipes and soldering

Unit VIII. Drywalling

1. Repairing cracks
2. Installing Drywall
3. Seams and nail holes

Unit IX. Painting

1. Brushes and rollers
2. Use of ladder
3. Estimating materials

Unit X. Flooring

1. Wood floors
2. Concrete floors
3. Tile

Unit XI. Electrical Repairs

1. Basics
2. Replace fuse-circuit breaker
3. Replace outlet
    a. Add an outlet
4. Replace switch
    a. Installing a three-way
5. Electrical test equipment

Unit XII. Insulation

1. Installing

2. Weather Striping

Unit I: Preparing to Build

5. Building Materials
6. Hand tools
7. Leveling Instruments
8. Plans, Specifications and Codes

Unit II Footings and framing

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4. Roofing Materials
5. Windows and Exterior Doors
6. Exterior Wall finish

Unit V Finishing

6. Thermal and sound insulation
7. interior wall finishes
8. Floor finishes
9. Stair construction
10. Doors and interior Trims

Unit VI Care of Tools

4. Remove rust
5. Shapening tools
6. Replace handles

Unit VII Plumbing Repairs

4. Leaky Faucet
5. Toilet repair
6. Repair of Pipes and soldering

Unit VIII. Drywalling

4. Repairing cracks
5. Installing Drywall
6. Seams and nail holes

Unit IX. Painting

4. Brushes and rollers
5. Use of ladder
6. Estimating materials

Unit X. Flooring

4. Wood floors
5. Concrete floors
6. Tile

Unit XI. Electrical Repairs

6. Basics
7. Replace fuse-circuit breaker
8. Replace outlet
    a. Add an outlet
9. Replace switch
    a. Installing a three-way
10. Electrical test equipment

Unit XII. Insulation

3. Installing
4. Weather Striping

TITLE: **RESOURCE ENGLISH/READING**
GRADES: **9TH-12TH**

RESOURCE MATERIALS: Literary Works, Six Traits Worksheets/Activities, Grammar Skills Materials, Spalding I and II Materials, State Writing Prompts, Films/ Media, Audio-CD's or Cassette, Listening Skills Materials, Dictionary Skills, Journaling, Proofreading/ revision activities, newspaper, strategies for teaching writing. Life skills Basic English and Communication Skills Survival English. A+

CRITERIA FOR EVALUATION AND ASSESSMENT: Tests, quizzes, discussions, project grades, writing assessments, journals, group and individual activities, criterion and norm referenced assessments, adoptions/modifications of materials as needed in accordance with each individualized education plan (IEP).

STATE STANDARDS: Students will be held accountable for the state standards as according to the level the student is performing at. A State Driven Alternate Assessment System will evaluate some students with Severe Disabilities.

RESOURCE CURRICULUM: Students follow Johnson County Central Public Schools curriculum with appropriate modification in accordance with IEP.

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SENTENCE FLUENCY – Smooth writing patterns and rhythmic flow of language.
CONVENTIONS- Using appropriate editing and presentation skills.

Criteria For Evaluation And Assessments:

1. Give practice on State Writing Prompts every quarter.
2. Use district assessment form to implement six traits writing.
3. Put visual aide materials up in the classroom to promote the six traits.
4. Administer appropriate assessments.

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TITLE: RESOURCE WORLD GEOGRAPHY/WORLD HISTORY/US HISTORY /AMERICAN GOVERNMENT
GRADE: 9^{TH}-12^{TH}

RESOURCE MATERIALS: Nebraska Studies, United States History, Global Studies, Maps, Graphs, Historical Fiction, Historical Teaching Tolerance Materials, Cultural Studies, United States Government Foundations, World History, Laws and Court Systems, Executive Branch, Legislative Branch, Six traits Writing, newspapers. Film/media, audio CD/cassettes, listening skills and communications. A+

CRITERIA FOR EVALUATION AND ASSESSMENT: Tests, quizzes, discussions, group and individual activities, criterion and norm referenced assessments, adoptions/modifications of materials as needed in accordance with each individualized education plan (IEP).

STATE STANDARDS: Students will be held accountable for the state standards as according to the level the student is performing at. A State Driven Alternate Assessment System will evaluate some students with Severe Disabilities.

RESOURCE CURRICULUM: Students follow Johnson County Central Public Schools curriculum with appropriate modification in accordance with IEP

SIX TRAIT CURRICULUM
The Johnson County Central Public Schools District endorses and implements the Six Traits model of writing instructions and assessment. It is an ongoing expectation that all faculty members will implement this mode of language instruction in their classroom.

IDEAS- The writer's primary message, point of story, showing details and clarity.
ORGANIZATION- Putting in formation into an order that shows direction and purpose.
VOICE- Includes the expression of a writer's personality; an awareness of the intended audience: and a skillful blend of detail, enthusiasm, and knowledge of the topic.
WORD CHOICE- Selecting, identifying and revising specific descriptive language.
SENTENCE FLUENCY – Smooth writing patterns and rhythmic flow of language.
CONVENTIONS- Using appropriate editing and presentation skills.

Criteria For Evaluation And Assessments:

1. Use district assessment from to implement six traits writing.
2. Put visual aide materials up in the classroom to promote the six traits.
3. Administer appropriate rubrics and assessments.

MULTICULTURAL EDUCATION

The instructional program at Johnson County Central Public School incorporates multicultural education in all curriculum areas at all grades. Multicultural education includes, but is not limited to studies relative to the culture, history, and contribution African Americans, Hispanic Americans, Native Americans, Asian Americans, and European Americans with special emphasis on human relations and sensitivity toward all races.

Criteria For Evaluation and Assessments:

1. A district assessment form is used to document multicultural education in the classroom.
2. An annual status report is provided to the local board of education

TITLE: **RESOURCE LIFE SKILLS/VOCATIONAL/CAREERS & TRANSITIONS**
GRADE: **9^{TH}-12^{TH}**

RESOURCE MATERIALS: Job Related Materials, Resume, Cover Letters, On the job training, Everyday Life Materials, Buying and Purchasing Power, Understanding Bills and contracts, Recipes, Following Directions Step by Step, Caring for oneself, Rules and laws in the Community, Scheduling, Time Concepts, Basic Skills for Survival, Survival Words, Common Signs, Phone Skills, Communication Skills, Listening Skills, Map Skills, Computer Skills, Typing Skills and Money Skills, Six Traits Writing, Reading coupons, labels & advertisements. Film/media, audio CD's and cassettes.

CRITERIA FOR EVALUATION AND ASSESSMENT: Tests, quizzes, discussions, group and individual activities, criterion and norm referenced assessments, on the job evaluations, employer evaluations, adoptions/modifications of materials as needed in accordance with each individualized education plan (IEP).

STATE STANDARDS: Students will be held accountable for the state standards as according to the level the student is performing at. A State Driven Alternate Assessment System will evaluate some students with Severe Disabilities.

RESOURCE CURRICULUM: Students follow Johnson County Central Public Schools curriculum with appropriate modification in accordance with IEP.

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CONVENTIONS- Using appropriate editing and presentation skills.
Criteria For Evaluation And Assessments:

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Criteria For Evaluation and Assessments:

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TITLE: **RESOURCE SCIENCE/BIOLOGY**
GRADE: **9TH-12TH**

RESOURCE MATERIALS: Life Processes, Human Body, Water Life, Experimentation, Simple Machines, Worksheets/ Activities, Films/ media, Plant and Animal Life, Biology book, General Science book, survey of living things, animal life. Six Traits Writing. Audio CD's/cassettes, science kits. A+

CRITERIA FOR EVALUATION AND ASSESSMENT: Tests, quizzes, discussions, group and individual activities, criterion and norm referenced assessments, adaptions/modifications of materials as needed in accordance with each individualized education plan (IEP).

STATE STANDARDS: Students will be held accountable for the state standards as according to the level the student is performing at. A State Driven Alternate Assessment System will evaluate some students with Severe Disabilities.

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TITLE: **RESOURCE MATHEMATICS**
GRADES: **9^{TH}-12^{TH}**

RESOURCE MATERIALS: Basic Mathematics (addition, subtraction, multiplication, division), Money Skills, Basic Pre-Algebra, Basic Algebra, Basic Geometry, Checking / Savings Packets, Life Skill Mathematics, Economics, Consumer and Business Mathematics, Occupational Mathematics, Six Traits Writing. Work-Force Math. Key to Algebra & Geometry.

CRITERIA FOR EVALUATION AND ASSESSMENT: Tests, quizzes, discussions, group and individual activities, criterion and norm referenced assessments, adaptions/modifications of materials as needed in accordance with each individualized education plan (IEP).

STATE STANDARDS: Students will be held accountable for the state standards as according to the level the student is performing at. A State Driven Alternate Assessment System will evaluate some students with Severe Disabilities.

RESOURCE CURRICULUM: Students follow Johnson County Central Public Schools curriculum with appropriate modification in accordance with IEP.

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Criteria For Evaluation and Assessments:

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2. An annual status report is provided to the local board of education

TITLE: ACADEMIC DECATHLON
GRADE LEVEL: 9TH – 12TH

RESOURCE MATERIALS:

- Study Guides, Basic Guides, Resource Guides, Novel, Music Selections; United States Academic Decathlon Organization
- Supplementary Resource Materials
  - DemiDec: Additional Resources; Workbooks; Quizzes; Tests
  - Internet
  - Books

CRITERIA FOR EVALUATION AND ASSESSMENT:

- oral assessment
- board work
- projects
- large and small group projects
- homework
- quizzes (written, on-line, clicker)
- tests

ACADEMIC DECATHLON CURRICULUM:

The Academic Decathlon curriculum is based on the curriculum set by the United States Academic Decathlon organization. USAD's curriculum is an interdisciplinary curriculum in which a yearly selected theme is integrated across six different subject areas: art, economics, language and literature, music, science, and social science. The curriculum also includes essay-writing, impromptu speeches and prepared speeches.

ECONOMICS STANDARDS

USAD's economics curriculum is developed in accordance with and modeled on the Voluntary National Content Standards in Economics

Standard 1: Scarcity
Standard 2: Marginal Cost/Benefit
Standard 3: Allocation of Goods and Services
Standard 4: Role of Incentives
Standard 5: Gain from Trade
Standard 6: Specialization and Trade
Standard 7: Markets – Price and Quantity Determination
Standard 8: Role of Price in Market System
Standard 9: Role of Competition
Standard 10: Role of Economic Institutions
Standard 11: Role of Money
Standard 12: Role of Interest Rates
Standard 13: Role of Resources in Determining Income
Standard 14: Profit and the Entrepreneur
Standard 15: Growth
Standard 16: Role of Government
Standard 17: Using Cost/Benefit Analysis to Evaluate Government Programs
Standard 18: Macro-economy-Income/Employment, Prices
Standard 19: Unemployment and Inflation
Standard 20: Monetary and Fiscal Policy

ENGLISH / LANGUAGE ARTS STANDARDS

The Standards for the English Language Arts were developed by the International Reading Association (IRA) and the National Council of Teachers of English (NCTE).

Standard 1: Students read a wide range of print and nonprint texts to build an understanding of texts, of themselves, and of the cultures of the United States and the world; to acquire new information; to respond to the needs and demands of society and the workplace; and for personal fulfillment. Among these texts are fiction and nonfiction, classic and contemporary works.

Standard 2: Students read a wide range of literature from many periods in many genres to build an understanding of the many dimensions (e.g., philosophical, ethical, and aesthetic) of human experience.

Standard 3: Students apply a wide range of strategies to comprehend, interpret, evaluate, and appreciate texts. They draw on their prior experience, their interactions with other readers and writers, their knowledge of word meaning and of other texts, their word identification strategies, and their understanding of textual features (e.g., sound-letter correspondence, sentence structure, context, and graphics).

Standard 4: Students adjust their use of spoken, written, and visual language (e.g., conventions, style, and vocabulary) to communicate effectively with a variety of audiences and for different purposes.

Standard 5: Students employ a wide range of strategies as they write and use different writing process elements appropriately to communicate with different audiences for a variety of purposes.

Standard 6: Students apply knowledge of language structure, language conventions (e.g., spelling and punctuation), media techniques, figurative language, and genre to create, critique, and discuss print and non-print texts.

Standard 7: Students conduct research on issues and interests by generating ideas and questions, and by posing problems. They gather, evaluate, and synthesize data from a variety of sources (e.g., print and nonprint texts, artifacts, and people) to communicate their discoveries in ways that suit their purpose and audience.

Standard 8: Students use a variety of technological and information resources (e.g., libraries, databases, computer networks, and video) to gather and synthesize information and to create and communicate knowledge.

Standard 9: Students develop an understanding of and respect for diversity in language use, patterns, and dialects across cultures, ethnic groups, geographic regions, and social roles.

Standard 11: Students participate as knowledgeable, reflective, creative, and critical members of a variety of literacy communities.

Standard 12: Students use spoken, written, and visual language to accomplish their own purposes (e.g., for learning, enjoyment, persuasion, and the exchange of information).

MATHEMATICS STANDARDS

The standards for Mathematics were developed by the National Council of Teachers of Mathematics.

Standard 1: Numbers and Operations

Standard 2: Algebra
Standard 3: Geometry
Standard 5: Data Analysis and Probability

MUSIC STANDARDS

The standards for Music were developed by the Consortium of National Arts Education Associations (under the guidance of the National Committee for Standards in the Arts).

Standard 6: Listening to, Analyzing, and Describing Music
Standard 7: Evaluating Music and Music Performances
Standard 8: Understanding Relationships between Music, the Other Arts, and Disciplines outside the Arts
Standard 9: Understanding Music in Relation to History and Culture

VISUAL ARTS STANDARDS

The standards for Music were developed by the Consortium of National Arts Education Associations (under the guidance of the National Committee for Standards in the Arts).

Standard 1: Understanding and Applying Media Techniques and Processes
Standard 2: Using Knowledge of Structures and Functions
Standard 3: Choosing and Evaluating a Range of Subject Matter, Symbols, and Ideas
Standard 4: Understanding the Visual Arts in Relation to History and Cultures
Standard 5: Reflecting Upon and Assessing the Characteristics and Merits of Their Work and the Work of Others
Standard 6: Making Connections between Visual Arts and Other Disciplines

SCIENCE STANDARDS

The standards for Science were developed by The National Science Education Research Council.

Standard A: Science as Inquiry
Standard C: Life Science
Standard F: Science in Personal and Social Perspectives
Standard G: History and Nature of Science

SOCIAL SCIENCE STANDARDS

The standards for Social Studies in Nebraska

Standard 12.1.13: Students will develop skills for historical analysis.
Standard 12.2.11: Students will demonstrate historical research and geographical skills.
Standard 12.4.3: Students will analyze the patterns of urban development, such as site and situation; the function of towns and cities; and problems related to human mobility, social structure, and the environment.
Standard 12.4.4: Student will analyze the patterns of urban development, such as site and situation; the function of towns and cities; and problems related to human mobility, social structure, and the environment.

Standard 12.4.5: Students will analyze the forces of conflict and cooperation.
Standard 12.4.7: Students will apply geography to interpret the past, understand the present, and plan the future.

SIX TRAIT CURRICULUM

The Johnson County Central Public School District endorses and implements the Six Traits model of writing instruction and assessment. It is an ongoing expectation that all faculty members will implement this mode of language instruction in their classroom.

IDEA	The writer's primary message, point of story, showing details and clarity
ORANIZATION	Putting information into an order that shows direction and purpose
VOICE	Includes the expression of a writer's personality; an awareness of the intended audience; and a skillful blend of detail, enthusiasm, and knowledge of the topic.
WORD CHOICE	Selecting, identifying, and revising specific descriptive language
SENTENCE FLUENCY	Smooth writing patterns and rhythmic flow of language
CONVENTIONS	Using appropriate editing and presentation skills

Criteria for Evaluation and Assessment:

1. Weekly writing skills (articles, reports, and journals).
2. Use district assessment form to implement six trait writing in the classroom.
3. Administer appropriate rubrics and assessments.

MULTICULTURAL EDUCATION

The instructional program at Johnson County Central incorporates multicultural education in all curriculum areas at all grades. Multicultural education includes, but is not limited to studies relative to culture, history, and contribution of African Americans, Hispanic Americans, Native Americans, Asian Americans and European Americans with special emphasis on human relations and sensitivity toward all races.

Criteria For Evaluation and Assessments:

1. A district assessment form is used to document multicultural education in the classroom
2. An annual status report is provided to the local board of education

TITLE: **AGRI-SCIENCE**
GRADE: **9th Grade or 1st Year Agriculture Student**

Resource Material: Power-point Presentations, Inquiry based labs, Internet, Magazines, Textbooks, Video, Outdoor Learning

Criteria For Evaluation and Assessments: Tests, Quizzes, Worksheets, Six Trait Writing Assessments, Lab Activities, Discussions, Semester Project/Exam.

State Standards:

12.2.1 By the end of twelfth grade, students will develop the abilities needed to do scientific inquiry.

The Learner Will:

- Formulate questions and identify concepts that guide scientific investigations.
- Design and conduct scientific investigations.
- Use technology and mathematics to improve investigations and communications.
- Formulate and revise scientific explanations and models using logic and evidence.
- Recognize and analyze alternative explanations and models.
- Communicate and defend a scientific argument.

12.4.1 By the end of twelfth grade, students will develop an understanding of the cell.

The Learner Will

- Investigate and describe the form and function of subcellular structures that regulate cell activities.
- Investigate and describe cell functions (e.g., photosynthesis, respiration, cell division).
- Investigate and understand that complex multicellular organisms are formed as highly organized arrangements of differentiated cells.

12.6.1 By the end of twelfth grade, students will develop an understanding of technological design.

The Learner Will:

- Propose designs and choose between alternative solutions of a problem.
- Implement the selected solution.
- Evaluate the solution and its consequences.
- Communicate the problem, process, and solution.

12.6.2 By the end of twelfth grade, students will develop an understanding about science and technology.

The Learner Will:

- Explain how science advances with the introduction of new technology.
- Understand creativity, imagination, and a good knowledge base is all needed to advance the work of science and engineering.
- Contrast the reasons for the pursuit of science and the pursuit of technology.

• Contrast the reporting of scientific knowledge and the reporting of technical knowledge.

12.7.2 By the end of twelfth grade, students will develop an understanding of the effects of population change.

The Learner Will:

• Investigate and identify causes of population growth or decline.

• Investigate and predict how population change may impact resource use and environments.

• Investigate and understand the limitations of natural systems to renew and recycle resources.

12.8.1 By the end of twelfth grade, students will develop an understanding of science as a human endeavor.

The Learner Will:

• Demonstrate ethical scientific practices (e.g., informing research subjects about risks and benefits, humane treatment of animals, truthful reporting, public disclosure of work, and peer review).

• Examine and understand the societal, cultural, and personal beliefs that influence scientists.

• Recognize science as one way of answering questions and explaining the natural world.

12.8.3 By the end of twelfth grade, students will develop an understanding of the history of science.

The Learner Will:

• Investigate and describe the contributions of diverse cultures to scientific knowledge and technological inventions.

• Understand that changes in scientific knowledge evolve over time and almost always build on earlier knowledge.

• Understand that some advancements in science and technology have long-lasting effects on society.

Six Trait Curriculum:

The Johnson County Central Public School District endorses and implements the Six Traits Model of Writing instruction and assessment. It is an ongoing expectation that all faculty members will implement this mode of language instruction in their classroom.

IDEAS- The writer's primary message, point of story, showing details and clarity.
ORGANIZATION- Putting information into an order that shows direction and purpose.
VOICE- Includes the Expression of a writer's personality; an awareness of the intended audience; and a skillful blend of detail, enthusiasm, and knowledge of the topic.
WORD CHOICE- Selecting, Identifying, and revising specific descriptive language
SENTENCE FLUENCY- Smooth writing patterns and rhythmic flow of language
CONVENTION- Using appropriate editing and presentation skills.

Criteria for evaluation and assessments:

1. Essay Questions on tests follow this model.

2. Use district assessment form to implement six traits writing in the classroom.
3. Administer appropriate rubrics and assessments.

MULTICULTURAL EDUCATION

The instructional program at Johnson County Central incorporates multicultural education in all curriculum areas at all grades. Multicultural education includes, but is not limited to studies relative to culture, history, and contribution of African Americans, Hispanic Americans, Native Americans, Asian Americans and European Americans with special emphasis on human relations and sensitivity toward all races.

Criteria For Evaluation and Assessments:

1. A district assessment form is used to document multicultural education in the classroom
2. An annual status report is provided to the local board of education

CLASS OBJECTIVE

Agri-Science is a course designed to give first year Agricultural Science students scientific and technical knowledge and skills in the agricultural science field. Introduction to plant science, animal science, leadership, and FFA will be the emphasis. The application of the biological science principles under both laboratory and real world conditions is the objective of this introductory course. Classroom study is integrated with realistic production activities, and the FFA program is an integral part of the course.

GENERAL COURSE OUTLINE

History of Agriculture
Agriculture Careers
Plant Science
Animal Science
Entomology
Pest Management
Food Science
Leadership
Parliamentary Procedure
FFA
SAE

TITLE: **Leadership**
GRADE: **9TH -12TH**

Resource Material: Power-point Presentations, Inquiry based labs, Internet, Magazines, Textbooks, Video, Strengths Finders.

Criteria For Evaluation and Assessments: Tests, Quizzes, Worksheets, Six Trait Writing Assessments, Discussions, Semester Project/Exam.

Six Trait Curriculum:

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CONVENTION- Using appropriate editing and presentation skills.

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Criteria For Evaluation and Assessments:

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CLASS OBJECTIVE

Through a "hands-on" approach, students will develop leadership skills needed to find, be hired for, and keep a job in agriculture, science, or natural resources related career area. Topics in this Leadership course include written and verbal communications, Strengths-Finders, meeting protocol, time management, goal setting, team building, and career development skills. Participation in local, district, state, and national FFA activities will be an integral part of the course.

GENERAL COURSE OUTLINE

Active Listening
Values
Making a Good 1st Impression
Goal Setting
Strengths Finders
Team Work
Public Speaking
Parliamentary Procedure
Employment Skills
Time Management

TITLE: **ADVANCED AGRICULTURAL STUDIES**
GRADE: **11TH -12TH**

Resource Material: Power-point Presentations, Inquiry based labs, Internet, Magazines, Textbooks, Video.

Criteria For Evaluation and Assessments: Tests, Quizzes, Worksheets, Six Trait Writing Assessments, Discussions, Individual Projects

Six Trait Curriculum:

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Criteria For Evaluation and Assessments:

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CLASS OBJECTIVE

This course is designed to be an independent study projects course for those looking to excel in a specific agriculture area. Coursework includes but not limited to fulfilling requirements for the State FFA Degree, writing small grants, studying higher level Animal/Plant Science, and AgriScience Research. Competing in FFA District, State, and National level competitions is an integral part of this course.

GENERAL COURSE OUTLINE

State FFA Degree
Creating Study Guides for FFA Contests
Grant Writing
Research
Individual Project Plans

TITLE: FOOD SCIENCE
GRADE: 10-12

Resource Material: Powerpoint Presentations, Inquiry based labs, Internet, Magazines, Textbooks, Video, Field trips

Criteria for For Evaluation and Assessments: Tests, Quizzes, Worksheets, Six Trait Writing Assessments, Lab Activities, Discussions, Semester Project/Exam.

State Standards:

12.2.1 By the end of twelfth grade, students will develop the abilities needed to do scientific inquiry.

The Learner Will:

• Formulate questions and identify concepts that guide scientific investigations.

• Design and conduct scientific investigations.

• Use technology and mathematics to improve investigations and communications.

• Formulate and revise scientific explanations and models using logic and evidence.

• Recognize and analyze alternative explanations and models.

• Communicate and defend a scientific argument.

12.6.1 By the end of twelfth grade, students will develop an understanding of technological design.

The Learner Will:

• Propose designs and choose between alternative solutions of a problem.

• Implement the selected solution.

• Evaluate the solution and its consequences.

• Communicate the problem, process, and solution.

12.6.2 By the end of twelfth grade, students will develop an understanding about science and technology.

The Learner Will:

• Explain how science advances with the introduction of new technology.

• Understand creativity, imagination, and a good knowledge base is all needed to advance the work of science and engineering.

• Contrast the reasons for the pursuit of science and the pursuit of technology.

• Contrast the reporting of scientific knowledge and the reporting of technical knowledge.

12.7.1 By the end of twelfth grade, students will develop an understanding of personal and community health.

- Understanding Pathogens
- Proper food handling
- Food Safety

12.7.6 By the end of twelfth grade, students will develop an understanding of the role of science and technology in local, national, and global challenges.

- Identify the segments of the food science industry
- Analyze the size and scope of the food industry in the US and the world
- Understand the food industry system from farm to retail

12.8.3 By the end of twelfth grade, students will develop an understanding of the history of science.

The Learner Will:

• Investigate and describe the contributions of diverse cultures to scientific knowledge and technological inventions.

• Understand that changes in scientific knowledge evolve over time and almost always build on earlier knowledge.

• Understand that some advancements in science and technology have long-lasting effects on society.

Six Trait Curriculum:

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WORD CHOICE- Selecting, Identifying, and revising specific descriptive language
SENTENCE FLUENCY- Smooth writing patterns and rhythmic flow of language
CONVENTION- Using appropriate editing and presentation skills.

Criteria for evaluation and assessments:

7. Essay Questions on tests follow this model.
8. Use district assessment form to implement six traits writing in the classroom.
9. Administer appropriate rubrics and assessments.

CLASS OBJECTIVE

To provide with a Food Science curriculum that incorporates a tremendous amount of science, including general chemistry, organic chemistry, biochemistry, biology, microbiology, and physics. Job placement and salaries for food science majors is astonishing. The food industry is in need of dedicated, science minded individuals to help maintain our safe, nutritious, and convenient food supply. FFA will be an integral part of this instructional program and membership is encouraged but not required.

GENERAL COURSE OUTLINE

Properties of Milk
Bacteria Good & Bad
Yeast
Food Additives
Irradiation of food
Issues in Food Safety
Nutrition
Fermentation Process
The World of Enzymes
Carboxylic acids and Esters
Denaturing Proteins
Dietary fibers
Color Chemistry
pH
Food Energy
Organic Acids
Extrusion Pressure
Food Calories
Endothermic/Exothermic changes

Johnson County Central Public
School Counseling Program

Mission Statement: "Dedicated to excellence in education through career, academic, personal and social development for all students!"

Guiding Beliefs:

- The school counseling program teaches life skills.
- The school counseling program is for all students.
- School counseling programs promote a healthy school culture that is supportive and collaborative among parents, students and staff.
- The school counseling program is an integral part of a total educational program.

The Counseling Program at Johnson County Central Public Schools contains 4 elements. The first element is curriculum which consists of essential learnings that define what students need to know, be able to do and be like in the areas of academic, career, personal and social development.

Indicators from each of the four curricular areas describe the outcomes in observable terms that can be more readily measured. Students do not all progress at equal rates, therefore the interval K-12 allows for lapses and spurts of growth.

Instructional activities are chosen based on essential learnings and indicators. They may be delivered by the counselor, the classroom teachers, and/or community members. Every connection to students, parents, educators and community can potentially be a learning experience.

The second element is the responsive services, assisting those with immediate issues, whether those needs or concerns require counseling, consultation, referral or information.

The third element is student planning. The counselor works in helping young people develop a healthy sense of future. Student planning includes learning plans, personal and career planning and transition assistance. Counselors will use written information, websites, bulletin boards, small group gatherings and large group meetings to disseminate information. Individual planning will also be used when necessary.

The fourth element is system support. The counselor is a resource to the school community:

- consulting with staff and administration,
- instructing on age appropriate issues with staff and community,
- facilitating learning experiences in collaboration with other educators.

Communication is essential to an effective school counseling program. Information must be presented in an organized, timely, and thorough manner to all of the constituency groups – students, school staff, parents and community

ESSENTIAL LEARNINGS AND INDICATORS

RESOURCES, LEARNING MATERIALS, INSTRUCTION NOTES:

Cluster 1: CAREER ESSENTIAL LEARNINGS

CL.1.1 **Develop an understanding of the world of work.**

K-5: 5.1.1a List different jobs in family, school, and community.

5.1.1b Describe reasons why people work.

6-8: 8.1.1b Name career clusters or pathways in which one may be interested.

8.1.1c Describe the importance of the world of work.

8.1.1d Demonstrate a positive attitude toward work.

9-12 12.1.1a Demonstrate knowledge of the skills needed to be successful in an ever-changing workplace.

12.1.1b Identify employment/occupational trends in a global economy.

CL.1.2 **Develop skills to explore and utilize career information.**

K-5: 5.1.2a Identify school and community resources to learn about jobs.

5.1.2b List careers of personal interest.

6-8: 8.1.2a Describe how to prepare for careers in which one is interested.

8.1.2b Demonstrate an understanding of career clusters, pathways and associated job requirements.

9-12: 12.1.2a Demonstrate skills in using school, community and technology resources to learn about occupational groups.

12.1.2b Participate in school-to-career activities.

CL.1.3 **Develop career decision making skills.**

K-5: 5.1.3a Articulate what can be learned from making mistakes.

5.1.3b Identify steps in good decision making.

RESOURCES, LEARNING MATERIALS, INSTRUCTION NOTES:

6-8 8.1.3a Explain how personal interests and abilities influence career choices.

8.1.3 Build a four year plan for high school that will support interests, needs, and career goals.

8.1.3c Demonstrate knowledge of a decision making model.

12.1.3a Complete steps for making the transition beyond high school.

12.1.3b Develop a career plan based on information about self.

12.1.3c Apply decision-making in real-life situations.

CL.1.4 **Develop an awareness and understanding of:**

- **changing life roles.**
- **self-knowledge as it relates to career choices.**
- **social/cultural factors.**

K-5: 5.1.4a List things one likes to do.

5.1.4b List personal strengths and weaknesses.

5.1.4c Explain how people are capable of doing different kinds of work.

6-8 8.1.4a Describe career development as a continuous process with a series of choices.

8.1.4b Explain how others' expectations effect career planning.

8.1.4c List advantages/disadvantages of entering nontraditional occupations.

8.1.4d Describe how career and life roles change over time.

9-12 12.1.4a Identify the relationship between occupational roles and lifestyle.

RESOURCES, LEARNING MATERIALS, INSTRUCTION NOTES:

12.1.4b Demonstrate knowledge and skills necessary to work effectively with people irrespective of their race, ethnicity, cultural experience, gender, and sexual orientation.

CL.1.5 **Obtain occupational and educational readiness skills.**

K-5 5.1.5a Explain the importance of being present, on time, and completing tasks.

5.1.5b Demonstrate the ability to follow directions.

6-8 8.1.5a Demonstrate positive work habits.

8.1.5b Demonstrate effective learning skills important to ` work.

9-12 12.1.5a Develop a plan beyond graduation (job opportunities, training programs, college, vocational-technical schools, financial aide, military)

12.1.5b Demonstrate skills necessary to compare educational and occupational opportunities.

Cluster 2: ACADEMIC ESSENTIAL LEARNINGS

CL.2.1 **Acquire confidence, knowledge, and skills that contribute to becoming effective life-long learners.**

K-5 5.2.1a Demonstrate how to listen and ask for help.

5.2.1b Describe various methods used to learn in school.

5.2.1c Develop a plan for improving study skills.

6-8 8.2.1a Describe the benefits of completing one's education.

8.2.1b Demonstrate how to ask questions and use materials to enhance learning.

RESOURCES, LEARNING MATERIALS, INSTRUCTION NOTES:

9-12 12.2.1a Apply time and task management skills to balance school, studies, extracurricular activities, leisure time and family life.

12.2.1b Use school and community resources to achieve academic goals.

12.2.1c Seek co-curricular and community experiences to enhance the school experience.

CL.2.2 **Complete school with the academic preparation essential to chose from a wide range of post secondary options.**

K-5 5.2.2a Describe how one makes choices.

5.2.2b Obtain knowledge of one's learning style to improve school performance.

6-8 8.2.2a Relate educational achievement to career opportunities.

8.2.2b Identify personal strengths and weaknesses in subject areas.

8.2.2c Evaluate present educational goals and make appropriate changes.

9-12 12.2.2a Develop a challenging academic plan that prepares one for future goals.

12.2.2b Understand how school success and academic achievement enhance future career and vocational opportunities.

12.2.2c Use diverse assessment results (class grades, projects, standardized tests, norm referenced and criterion referenced tests)

CL.2.3 **Understand the relationship between learning and work.**

K-5 5.2.3a Explain the connection among positive work habits, effort, and goal achievement.

5.2.3b Describe school subjects related to personal, educational, and occupational interests.

RESOURCES, LEARNING MATERIALS, INSTRUCTION NOTES:

6-8 8.2.3c Select school courses related to personal, educational and occupational interests.

8.2.3d Complete interest, skills, and work value assessments, explore career pathways, access college information, and begin to build a resume.

9-12 12.2.3a Demonstrate the importance of time management and organizational skills to academic and future success.

12.2.3b Evaluate and adapt study skills to enhance learning.

Cluster3: SOCIAL ESSENTIAL LEARNINGS

CL.3.1 **Interact positively with others using effective communication skills.**

K-5 5.3.1a Express feelings and ideas in an appropriate manner.

5.3.1b Listen to others and describe their feelings.

6-8 8.3.1a Demonstrate effective ways to communicate with others.

8.3.1b Respect diversity in others.

9-12 12.3.1a Apply effective interpersonal relationship skills

12.3.1b Learn to use feedback effectively.

CL.3.2 **Describe how family, school, work, and community systems are interdependent.**

K-5 5.3.2a Communicate care, consideration, and respect for others.

5.3.2b. Explain why people need to belong and be accepted by others.

6-8 8.3.2a. Evaluate the impact of values, family, and peers on the decision-making process.

8.3.2b. Identify environmental influences on attitudes, behaviors, and aptitudes.

RESOURCES, LEARNING MATERIALS, INSTRUCTION NOTES:

9-12 12.3.2a Identify community resources that positively impact families.

12.3.2b Describe situations which would require outside community resources.

CL.3.3 **Acknowledge individual differences and common bonds by demonstrating skills related to the positive effects of diversity, inclusiveness, and fairness.**

K-5 5.3.3a Explain how one is a member of a community.

5.3.3b Describe how one can be responsible for oneself and others.

5.3.3c List the rights and freedoms each person has as a member of a community.

6-8 8.3.3a Demonstrate an appreciation for the similarities and differences among people.

8.3.3b Explain the importance of respecting others.

8.3.3c Describe how all individuals have value in society.

9-12 12.3.3a Demonstrate respect for individual and cultural differences.

12.3.3b Recognize and support positive qualities in others.

CL.3.4 **Work cooperatively in diverse settings to accomplish a common goal.**

K-5 5.3.4a. Work and play cooperatively.

5.3.4b. Explain how each individual has a role to play in the solution of a problem.

6-8 8.3.4a. Demonstrate effective group membership skills.

8.3.4b. Demonstrate effective interpersonal relationship skills.

RESOURCES, LEARNING MATERIALS, INSTRUCTION NOTES:

9-12 12.3.4a Evaluate personal tolerance and flexibility in interpersonal and group situations.

12.3.4b Demonstrate tolerance and flexibility in interpersonal and group situations.

CL.3.5 **Use appropriate methods for reconciling differences.**

K-5 5.3.5a Identify alternative ways to solve conflicts.

5.3.5b Demonstrate conflict resolution skills.

6-8 8.3.5a Describe the influence of feelings on behavior.

8.3.5b Demonstrate mediation skills.

9-12 12.3.5a Respond effectively to peer pressure.

12.3.5b Utilize appropriate conflict resolution skills on a regular basis.

Cluster 4 PERSONAL ESSENTIAL LEARNINGS (How We Manage Ourselves).

CL.4.1 **Recognize personal beliefs and emotions and their effects.**

K-5 5.4.1a Describe a wide variety of feelings.

5.4.1b List a wide variety of feelings and their effects.

6-8 8.4.1a Describe the influence of feelings and behaviors.

8.4.1b Learn how to respond appropriately to the statements and feelings of others.

8.4.1c Demonstrate skills to overcome self-defeating behaviors.

9-12 12.4.1a Demonstrate behavior that enables one to develop and maintain relationships.

12.4.1b Demonstrate awareness that what one believes and feels effects behavior/actions.

RESOURCES, LEARNING MATERIALS, INSTRUCTION NOTES:

CL.4.2 **Acknowledge one's self-worth and capabilities.**

K-5 5.4.2a Identify personal abilities.

5.4.2b Demonstrate a positive attitude toward self as worthy and unique.

6-8 8.4.2a Recognize and value one's own unique abilities.

8.4.2b Demonstrate a realistic understanding of self.

8.4.2c Give and receive compliments and criticisms appropriately.

8.4.2d Set and achieve realistic goals in order to feel successful.

9-12 12.4.2a Show understanding of self as a part of positive self-concept development.

CL.4.3 **Take responsibility for personal integrity and performance.**

K-5 5.4.3a Describe one's personal responsibilities and carry them out.

5.4.3b Explain the cause and effect of one's actions toward others.

6-8 8.4.3a Demonstrate acceptance of consequences for one's actions.

8.4.3b Develop personal strengths and recognize limitations.

9-12 12.4.3a Evaluate the importance of assuming responsibility for oneself.

12.4.3b Demonstrate the ability to make appropriate choices that effect one's environment.

CL.4.4 **Manage change in a positive manner.**

K-5 5.4.4a Explain how attitude effects how one deals with change.

5.4.4b Describe changes experienced by self and others.

		RESOURCES, LEARNING MATERIALS, INSTRUCTION NOTES:
6-8	8.4.4a Demonstrate how personal attitude effects how one deals with change. 8.4.4b Describe how personal aspirations may change over time. 8.4.4c. Learn to promote inclusion and acceptance in the group.	
9-12	12.4.4a Demonstrate the ability to anticipate change and learn adaptive skills. 12.4.4b Describe potential changes in self, family and community, and way to cope with changes.	
CL.4.5 **Learn to balance school, work, family and social life (manage stress).**		
K-5	5.4.5a Identify sources and effects of stress. 5.4.5b Identify strategies for dealing with stress and peer pressure.	
6-8	8.4.5a Identify personal needs that may be satisfied through roles in family, community, social, and workplace. 8.4.5b Describe the effects of peer pressure and some ways to cope. 8.4.5c Recognize when help is needed and how to get it.	
9-12	12.4.5a Analyze how family, peers and community influence healthy well-being. 12.4.5b Predict the immediate and long-term impact of choices regarding school, work, family, and social involvement.	
CL.4.6 **Learn to make decisions by setting goals, planning, and persisting despite obstacles and setbacks.**		
K-5	5.4.6a List decision making steps and act on them.	

		RESOURCES, LEARNING MATERIALS, INSTRUCTION NOTES:
	5.4.6b Explain how persistence effects outcomes.	
	5.4.6c Describe how to plan to achieve.	
6-8	8.4.6a Describe and apply the steps in making a decision.	
	8.4.6b Predict and evaluate the possible consequences of choices.	
	8.4.6c Explain how to look at one's decisions and change ineffective ones.	
9-12	12.4.6a Demonstrate personally meaningful goals based on identified skills, interests, and priorities.	
	12.4.6b Analyze how personal attitudes and values influence what one does.	
	12.4.6c Evaluate and asses potential consequences of achieving goals.	
CL.4.7	**Demonstrate the ability to work independently.**	
K-5	5.4.7a Start and finish a task independently.	
	5.4.7b Develop skills in planning and completing school work.	
6-8	8.4.7a Demonstrate skills in planning and completing school work.	
	8.4.7b Increase ability to meet deadlines and expectations.	
9-12	12.4.7a Successfully initiate, plan, execute and evaluate a given task.	
	12.4.7b Practice and evaluate skills in planning and completing school work.	

Basic Nursing Assistant Training

Curriculum: Nebraska Health Care Association, Inc.
Basic Nursing Assistant Training (textbook)

Criteria For Evaluation and Assessment: Daily work/ curriculum assignments, short pre-quiz evaluations and post-unit quizzes on each unit, skills assessments with successful completion and return demonstration for sign-off by instructor, curriculum exam at end of semester. After successful completion of this curriculum, then student can take Certified Nursing Assistant Written Exam and Skills Exam. Upon successful completion of this written exam and skills exam, the student will become a C.N.A. with State of Nebraska Nursing Licensure Department.

Unit 1: **World of Health Care**. Discussion revolves around the world of health care. We will discuss all aspects of the healthcare team and the role of the nursing assistant within this team. The qualities of a good nursing assistant are also discussed.

Unit 2: **Customer**. This unit is about the resident as a customer. We discuss customer service, resident rights, and promoting resident independence. We also discuss neglect and abuse of the resident and what steps must be taken if the nursing assistant is witness to this.

Unit 3: **Communication and Interpersonal Skills**. We talk about effective communication skills and interpersonal skills between team members and also between nursing assistants and residents. Areas that we cover in this unit are related to hearing and vision, eyes and ears, age related changes, common ear and eye disorders, speech impairment, restorative care in communication, hospitality skills, observations and reporting, and record keeping.

Unit 4: **Safety for the Resident and Worker**. Topics covered in this unit are keeping residents and workers safe in our physical environment, infection control, disaster preparedness, employee safety.
SKILLS in this unit include hand washing, glove removal, handling soiled equipment, handling soiled bed linens, first aid, abdominal thrusts

Unit 5: **The Resident's Environment**. We will discuss physical environment standards, the residents room, observations.
SKILLS in this unit include changing an occupied bed and changing an unoccupied bed

Unit 6: **Skin Care and Personal Hygiene**. We will discuss and cover human body systems, anatomy and physiology of the integumentary system, common disorders of the skin, personal hygiene.
SKILLS in this unit include grooming, routine oral cares, care of dentures, oral hygiene of an unresponsive resident, assisting with dressing or undressing, nail cares, shaving with electric razor, female and male pericare, restorative grooming, bathing, showering, tub bath, bed bath, and partial bed bath.

Unit 7: **Mobility, Musculoskeletal and Nervous System**. Topics covered in this unit are musculoskeletal and nervous system anatomy, age-related changes, common disorders, observations related to the musculoskeletal and nervous system, assisting with mobility, restorative mobility and devices.
SKILLS for this unit include positioning a resident in bed, moving a patient in bed, transferring a resident from the bed to chair or wheelchair, transferring a resident from chair to toilet, assisting to ambulate, using a cane or walker, ROM exercises.

Unit 8: **Food, Water and the Digestive System**. We will cover anatomy and physiology of the digestive system, age- related changes in the digestive system, digestive conditions in the elderly, nutrition, barriers to adequate nutrition and hydration, dehydration, therapeutics diets, restorative dining, feeding issues.
SKILLS in this unit include assisting the dependent resident with dining.

Unit 9: **Vital Signs**. In this unit, we will discuss circulatory and respiratory system, age-related changes, common disorders in the elderly, general care of the resident with circulatory needs and respiratory needs.
SKILLS in this unit include application of elastic support stockings, taking temperature, measuring radial pulse, measuring respirations and blood pressure, and using a scale for height and weight.

Unit 10: **Elimination**. This unit covers anatomy and physiology of the urinary and reproductive system, age- related changes, common conditions in the elderly, understanding fluid balance, bowel elimination, urine specimens, restorative elimination with bowel and bladder training.
SKILLS in this unit include measuring intake and output and recording, assisting with toileting, proper use of urinal, bedpan, and incontinent briefs, urinary catheter care and emptying a urinary drainage bag properly.

Unit 11: **Comfort**. We will cover the importance of sleep and rest, pain, pain management, dementia and pain, principles of pain management.
SKILLS in this unit are backrubs.

Unit 12: **Endocrine and Reproduction**. We will discuss anatomy and physiology of the endocrine and reproductive systems, age-related changes, conditions common in the elderly, and observations.

Unit 13: **Special Populations**. In this unit we discuss confusion, delirium, dementia, impaired memory, geriatric mental health, emotional disorders, thought disorders, personality disorders, and developmental disability.

Unit 14: **Behavior Management**. In this unit, behaviors are discussed. We discuss what causes challenging behaviors and how to manage them. Restraints are also discussed.

Unit 15: **Quality of Life and the Elderly**. We discuss the aging process, role changes, sexuality, quality of life, newly-admitted residents, nursing assistants role

Unit 16: **Spirituality**. We discuss spirituality and religious practices.

Unit 17: **Cultural Diversity**. Cultural differences are discussed.

Unit 18: **End-of-life Care**: In this last unit, we discuss end-of-life care. We discuss grief and reactions to loss. We discuss pronouncing death, cares immediately after death, bereavement, hospice. The role of the nursing assistance with all of these topics is discussed at length.

TITLE: **DRIVER'S EDUCATION**

GRADE: The student must be 15 by the first day of class, unless otherwise approved by The course instructor.

RESOURCE MATERIALS:

1. Textbook: Responsible Driving, copyright 2000 American Automobile Association.
2. Reproducible: Study Guide, Lesson Plans, Behind the Wheel Checklist, Parent Involvement, Car Care Manual, Understanding the Dangers of Alcohol and Drugs, Information.
3. Traffic Charts.
4. Videos: "Responsible Driving Video 1 – Basic Driving Concepts" and "Responsible Driving Video 2 – Intermediate Driving Concepts".
5. State of Nebraska Traffic Crash Facts Annual Report.
6. Nebraska Driver's Manual.
7. Responsible Driving Test maker software.
8. Intersection Observation Form.
9. Dry-erase Board.

CRITERIA FOR EVALUATION AND ASSESSMENT:

1. Chapter Tests
2. Intersection Observation
3. Media Assignment
4. Class Attendance
5. Final Written Test
6. Driving Skills

REQUIREMENTS FOR PASSING DRIVER'S EDUCATION:

2. The student must have 100% classroom attendance.
3. The student must pass the classroom portion with 70% or better.
4. The student must complete 20 hours of classroom time, five hours driving, and five hours observing.

SIX TRAIT CURRICULUM

The Johnson County Central Public School District endorses and implements the Six Traits model of writing instruction and assessment. It is an ongoing expectation that all faculty members will implement this mode of language instruction in their classroom.

IDEAS – The writer's primary message, point of story, showing details and clarity.
ORGANIZATION – Putting information into an order that shows direction and purpose.
VOICE – Includes the expression of a writer's personality; an awareness of the intended audience; and a skillful blend of detail, enthusiasm, and knowledge of the topic.
WORD CHOICE – Selecting, identifying, and revising specific descriptive language.
SENTENCE FLUENCY – Smooth writing patterns and rhythmic flow of language.
CONVENTIONS – Using appropriate editing and presentation skills.

Criteria For Evaluation And Assessments:

1. Inclusion of Six Trait Writing skills in course assessments.
2. Use district assessment form to implement six traits writing in the classroom.
3. Put visual aide materials up in the classroom to promote the six traits.
4. Administer appropriate rubrics and assessments.

MULTICULTURAL EDUCATION

The instructional program at Johnson County Central Public Schools incorporates multicultural education in all curriculum areas at all grades. Multicultural education includes, but is not limited to, studies relative to the culture, history, and contributions of African Americans, Hispanic Americans, Native Americans, Asian Americans and European Americans with special emphasis on human relations and sensitivity toward all races.

Criteria For Evaluation And Assessments:

1. A district assessment form is used to document multicultural education in the classroom.
2. An annual status report is provided to the local board of education.

UNIT I: STARTING WITH YOU
COURSE OBJECTIVES:

Chapter 1 Assessing and Managing Risk
- 1-1 The Highway Transportation System and Risk Management
- 1-2 Understanding and Applying the SIPDE Process
- 1-3 Understanding and Using the Smith System
- 1-4 The Value of Taking a Driver Education Course

Chapter 2 Getting Ready: Your State Driving Test
- 2-1 Introducing Graduated Driver Licensing
- 2-2 Getting Ready for the Knowledge Test and the In-Vehicle Test
- 2-3 Getting the Vehicle Ready for the Test
- 2-4 Taking the Final Test: The In-Vehicle Test

Chapter 3 Knowing Yourself
- 3-1 Emotions Affect Your Driving Ability
- 3-2 How Vision Affects Your Ability to Drive
- 3-3 Temporary Physical Conditions That Affect Your Ability to Drive
- 3-4 Long-Term Physical Factors That Affect Driving Ability

Chapter 4 Handling Social Pressures
- 4-1 Alcohol's Effect on One's Health and One's Future
- 4-2 Alcohol and Its Effects on Driving Ability
- 4-3 How Other Drugs Affect Driving Ability
- 4-4 Distractions Can Increase Driving Risk

UNIT II: LEARNING THE BASICS
COURSE OBJECTIVES:

Chapter 5 Signs, Signals, and Markings
- 5-1 Understanding Regulatory and Warning Signs
- 5-2 Guide and International Signs
- 5-3 Understanding the Purpose of Pavement Markings
- 5-4 Responding to Traffic Control Signals

Chapter 6 Rules of the Road
- 6-1 Each State Has Administrative Laws
- 6-2 Right-of-Way Rules Are Essential
- 6-3 Speed Limits Help in Reducing Risk
- 6-4 If You Are Involved in a Collision

Chapter 7 Getting to Know Your Vehicle
- 7-1 Comfort and Control Systems and Risk Management
- 7-2 The Visibility and Protective Systems of Your Vehicle
- 7-3 Information and Communication Systems
- 7-4 Checks and Procedures to Use Before Driving

Chapter 8 Starting, Steering, Stopping
- 8-1 Basic Operating Procedures: Automatic Transmission
- 8-2 Basic Operating Procedures: Manual Transmission
- 8-3 Acceleration, Deceleration, and Speed
- 8-4 Learning How to Steer the Vehicle

Chapter 9 Basic Driving Skills
- 9-1 Moving from a Curb into Traffic and out of Traffic to a Curb
- 9-2 Managing Power and Speed on Hills and Mountains
- 9-3 Managing Visibility, Time, and Space When Changing Lanes
- 9-4 Passing Another Vehicle and Being Passed

UNIT III: MOVING ONTO THE ROAD
COURSE OBJECTIVES:

Chapter 10 Turning and Parking
- 10-1 How to Prepare for and Execute a Right Turn
- 10-2 How to Prepare for and Execute a Left Turn
- 10-3 Planning and Executing a Reverse in Direction
- 10-4 How to Prepare for and Execute a Parking Maneuver

Chapter 11 Driving Environments
- 11-1 Managing Visibility, Time, and Space
- 11-2 Visibility, Time, and Space on Urban Streets
- 11-3 Visibility, Time, and Space on Rural Roads
- 11-4 Visibility, Time, and Space on Multiple-Lane Highways

Chapter 12 Light and Weather Conditions
- 12-1 Driving Safely in Low Light at Night
- 12-2 Visibility, Bright Light, and Glare
- 12-3 Minimizing Risk in Rain and Snow
- 12-4 Other Hazardous Weather Conditions

Chapter 13 Sharing the Roadway
- 13-1 Sharing the Roadway with Pedestrians and Animals
- 13-2 Sharing the Roadway with Motorcycles and Bicycles
- 13-3 Sharing the Roadway with Other Vehicles
- 13-4 Safe Driving Procedures at Railroad Crossings

Chapter 14 Natural Laws and Driving
- 14-1 Natural Laws and the Movement of Your Vehicle
- 14-2 Natural Laws and Steering and Braking
- 14-3 Using Natural Laws to Manage Skids
- 14-4 Natural Laws, Risk Management, and Collisions

Chapter 15 Responding to an Emergency
- 15-1 Brake, Engine, and Steering Failures
- 15-2 Tire Failure and Other Serious Problems
- 15-3 Waiting for Help and Protecting the Scene
- 15-4 First Aid Guidelines and Procedures

UNIT IV: PLANNING FOR YOUR FUTURE
COURSE OBJECTIVES:

Chapter 16 Buying a Vehicle
- 16-1 Determining Personal Need When Considering Buying a Vehicle
- 16-2 Factors That Are Involved in Selecting a Vehicle
- 16-3 How to Obtain Financing for a New or Used Vehicle
- 16-4 Choosing and Purchasing Insurance for a Vehicle

Chapter 17 Vehicle Systems and Maintenance
- 17-1 Checking Your Vehicle Before and After You Start the Engine
- 17-2 Becoming Familiar with the Engine and Power Train
- 17-3 Understanding and Maintaining Vehicle Systems
- 17-4 Suspension, Steering, Brakes, and Tires

Chapter 18 Planning a Trip
- 18-1 Preparing Yourself and Your Vehicle for a Short Trip
- 18-2 Getting Ready for a Long Trip
- 18-3 Loading and Driving with a Trailer
- 18-4 Traveling Safely in a Light Truck: A Pickup, Sport Utility Vehicle, or Van

DRIVING EVALUATION:

Students are evaluated for five hours on the following skills in an automatic transmission vehicle provided by the school.

1. Outside checks
2. Seat and Mirror Adjustments
3. Seatbelt usage.
4. Starting the engine.
5. Putting the car in gear.
6. Visual checks when backing or pulling away.
7. Left and right turns.
8. Braking.
9. Accelerator.
10. Speed management.
11. Tracking.
12. Proper hand position.
13. Parking and Exiting (angle, perpendicular, parallel, and on a grade).
14. Backing.
15. Roadside stop.
16. Turn arounds (two-points, u-turn, three-point).
17. Passing.
18. Changing lanes.
19. Expressway/Interstate entry and exit.
20. Right-of-way.

The students will practice their driving skills on a variety of roadways.

- Highway.
- Interstate.
- Urban roadway.
- City roadway.
- Gravel/dirt country road.

TITLE: INTRODUCTION TO EDUCATION/EXPERIENCING TEACHING
GRADE: 11th-12th
RESOURCE MATERIALS: Textbook: Building Teachers Wadsworth Cengage Learning copyright 2014, Teacher handouts.
Six Trait Curriculum
The Johnson County Central School District endorses and implements the Six Traits model of writing instruction and assessment. It is an ongoing expectation that all faculty members will implement this mode of language instruction in their classroom.
Ideas – The writer's primary message, point of story, showing details and clarity.
Organization – Putting information into an order that shows direction and purpose.
Voice – Includes the expression of a writer's personality; an awareness of the intended audience; and a skillful bland of detail, enthusiasm, and knowledge of the topic.
Word Choice – Selecting, identifying, and revising specific descriptive language.
Sentence Fluency – Smooth writing patterns and rhythmic flow of language.
Conventions – Using appropriate editing and presentation skills.

Criteria for evaluation and assessments:
Weekly writing skills
Use district assessment form to implement six traits writing in the classroom
Put visual aid materials up in the classroom to promote the six traits.
Administer appropriate rubrics and assessments

Multicultural Education
The instructional program at Johnson County Central Schools incorporates multicultural education in the all curriculum areas at all grades. Multicultural education includes, but is not limited to, studies relative to the culture, history, and contributions of African Americans, Hispanic Americans, Native Americans, Asian Americans, and European Americans with special emphasis on human relations and sensitivity toward all races.
Criteria for evaluation and assessments:
A district assessment form is used to document multicultural education in the classroom.
An annual status report is provided to the local board of education.

Chapter 1 Teaching Excellence and You
Characteristics of Excellent Teachers and Effective Teaching: Your Beliefs
Characteristics of Excellent Teachers and Effective Teaching: Outsider Perspectives
Components of Excellence in Teaching
Characteristics of Excellent Teachers and Effective Teaching: Views from Teaching
Characteristics of Excellent Teachers and Effective Teaching: The Media
Characteristics of Excellent Teachers and Effective Teaching: The Experts
Characteristics of Excellent Teachers and Effective Teaching: The Research
Characteristics of Excellent Teachers and Effective Teaching: Psychologists
Characteristics of Excellent Teachers and Effective Teaching: The Federal Government
Characteristics of Excellent Teachers and Effective Teaching: Professional Standards

Chapter 2 Your Philosophy of Education
The Nature of Philosophy
Educational Philosophy
Schools of Philosophic Thought
Theories of Educational Psychology
Your Philosophy of Education

Chapter 3 The Student: Common Needs
Students' Needs and Motivations
Basic Needs
Cognitive Needs
Psychosocial Needs
General Academic Needs
Instruction that Addresses Student Needs

Chapter 4 The Student and the Teacher: Acknowledging Unique Perspectives
The Nature of Diversity
Cultural Diversity
English Language Learners
Religion
Socioeconomic Status
Gender
Sexual Orientation

Chapter 5 The Student and the Teacher: Acknowledging Unique Abilities
Exceptional Children and the Individuals with Disabilities Education Act
Learning Disabilities
Cognitive Abilities
Multiple Intelligences
Learning Styles
Teaching that Acknowledge Unique Abilities
Constructivism and Teaching Students with Unique Abilities

Chapter 6 Purposes of Schools
Common Purposes of Schools
Purpose of Schools as Seen in Mission
Factors Influencing the Purposes of Schools
Nontraditional Schools
Your Hypothetical School

Chapter 7 Structure of Schools
Needs of Schools
Physical Facilities
Personnel
Scheduling

Chapter 8 The School and the Students: Expectation and Responsibilities
Student Safety in the School
School Responses to Safety Issues
The Teacher's Role

Chapter 9 The Schools and Teacher: Expectations and Responsibilities
The School's Expectations of the Teacher
The Teacher's Expectations of the School

Chapter 10 Historical Perspectives
Basic Educational History Considerations
Education in the Colonial Period
Education in the Young Nation Period

Education in the Progressive Nation Period
Education in the Postwar Period
Education in the Modern Period
Education of Minorities

Chapter 11 School Governance and Finance
The Stakeholders in U.S. Education
Financing Education
Issues in School Governance and Finance
School Choice and Voucher Systems

Chapter 12 Social Issues and the School's Response
Social Issues
Social Issues that Affect Emotional Health
Social Issues that Affect Physical Health
Social Issues that Affect the Community
Chapter 13 Teachers, Students, and the Law
Sources of Laws and Regulations Impacting Schools
Teachers and the Law
Students and the Law

Chapter 14 Education Reform: Standards and Accountability
What is Education Reform?
Curriculum and Instruction Reform
The Impact of Reform on Instruction and Assessment
Assessment Reform
Teacher Education Reform

Chapter 15 Your Motives for Teaching
Identifying Your Reasons for Teaching
Teaching as a Profession

TITLE: Medical Terminology
GRADE: 11 TH -12TH

Medical Terminology covers the vocabulary used in anatomy, physiology, medicine and related fields. It is strongly encouraged to take this class at the same time as Anatomy & Physiology because the two reinforce each other, with the words learned in medical terminology applying directly to the anatomy and physiology concepts. This class would be useful for anyone considering a career in any medical field as well as anyone who wishes to work in a hospital or doctor's office in any capacity, especially receptionist, medical records or other clerical fields.

RESOURCE MATERIALS: Lab handouts, Text Books, Workbook, CD ROM, Internet, Films, Magazines.

CRITERIA FOR EVALUATION AND ASSESSMENTS: Tests, Quizzes, Worksheets, Six Traits Writing assignments, Lab activities, discussions, Semester Projects /exams.

SIX TRAIT CURRICULM
The Johnson County Central Public School District endorses and implements the Six Traits model of writing instruction and assessment. It is an ongoing expectation that all faculty members will implement this mode of language instruction in their classroom.
IDEAS – The writer's primary message, point of story, showing details and clarity.
ORGANIZATION – Putting information into an order that shows direction and purpose.
VOICE – Includes the expression of a writer's personality; an awareness of the intended audience; and a skillful blend of detail, enthusiasm, and knowledge of the topic.
WORD CHOICE – Selecting, identifying, and revising specific descriptive language.
SENTENCE FLUENCY – Smooth writing patterns and rhythmic flow of language.
CONVENTIONS – Using appropriate editing and presentation skills.
Criteria for evaluation and assessments:
1. Essay questions on tests follow this model.
2. Use district assessment form to implement six traits writing in the classroom.
3. Students write a fictional story on new genetics using six traits.
4. Put visual aide material up in classroom to promote the six traits.
5. Administer appropriate rubrics and assessments.

MULTICULTURAL EDUCATION
The instructional program at Johnson County Central Public Schools incorporates multicultural education in all curriculum areas at all grades. Multicultural education includes, but is not limited to, studies relative to the culture, history, and contributions of African Americans, Hispanic Americans, Native Americans, Asian Americans and European Americans with special emphasis on human relations and sensitivity toward all races.
Criteria For Evaluation And Assessment:
1. A district assessment from is used to document multicultural education in the classroom
2. An annual status report is provided to the local board of education.

TOPICS COVERED INCLUDE TERMS FOR:

- **Anatomic Directional & Regional Terms**
- **Cardiovascular**
- **Nervous System**
- **Digestive System**

- **Skeletal System**
- **Muscle System**
- **Reproductive System**
- **Renal System**
- **Integumentary System**
- **Endocrine System**
- **Pulmonary System**
- **Immune System**

TITLE: Health Care Careers
GRADE: 10TH -12TH

This class is an exploratory class for anyone who might be interested in a career in health care. Health care encompasses not only doctors and nurses, but a whole host of ancillary fields including physical therapy, pharmacy, dentistry, speech therapy, occupational therapy, athletic trainers, CMAs, receptionists, medical records clerks, administrators. It also includes individuals at all education levels. We will have guest speakers from a variety of professions as well as learning about various aspects of medical conduct, ethics and practices.

RESOURCE MATERIALS: Lab handouts, Text Books, Workbook, CD ROM, Internet, Films, Magazines, Guest Speakers.

CRITERIA FOR EVALUATION AND ASSESSMENTS: Tests, Quizzes, Worksheets, Six Traits Writing assignments, Lab activities, discussions, Semester Projects /exams.

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TOPICS INCLUDE:
- **History of health care**
- **Health care systems**
- **Careers in health care**
- **Personal and professional qualities in health care workers**
- **Legal and ethical responsibilities**

- **Cultural Diversity**
- **Geriatric care**
- **Safety**
- **Infection control**
- **First aid**
- **Preparing for work in health care**