Math 404

Elective

Sayreville War Memorial High School

2.5 Credits

Half Year

Date Curriculum Approved/ Revised: 06/11/19

Written by: Nicholas Cifelli

Cynthia Cordes

Table of Contents

*Quarterly 1 Exam will be administered after unit 6 (2 days)

*Quarterly 2 Exam and final administration of standardized test will be given after unit 11 (3 days)

Statement of Purpose

This course is designed to assist students in obtaining a passing score on the State Standardized Test to fulfill graduation requirements. Topics from Algebra I, Algebra II and Geometry will be covered. Students will receive an extensive review of skills needed to be successful on the state mandated standardized assessment.

Summary of the Course: Math 404 is designed to help students pass the state mandated requirements for graduation. Students will explore evaluating expressions and solving equations, solving absolute value equations and inequalities, polynomials, radicals, complex fractions and equations, factoring trinomials and quadratic equations, and exploring laws of exponents and scientific notation. The curriculum will provide students with the skills necessary to pass the state mandated standardized test for graduation. The standardized assessment will be administered three times throughout the semester, (after week 1 of the review, at the end of December and at the end of the semester).

In order to demonstrate a cohesive and complete implementation plan the following general suggestions are provided:

- The use of various formative assessments is encouraged in order to provide an ongoing method of determining the current level of understanding the students have of the material presented.
- Homework, should be relevant and reflective of the lessons in the classroom.
- Instruction should be differentiated and modifications should be included that address students with Individualized Education Plans (IEP), English Language Learners (ELL) and those requiring other modifications (504 plans)
- Assessments should be varied.
- Various on-line assessment tools are encouraged for students to gain an understanding of test questions and layout.

Unit 1: Standardized Test Review

Summary of the Unit: This unit is a review of the topics covered on the standardized test used for fulfilling graduation requirements. Students will review equations, inequalities, polynomials, factoring, radicals and complex fractions.

Enduring Understanding: By the end of this unit students will know how to:

- Solve and graph equations and inequalities
- Simplify polynomials
- Factor binomials and trinomials
- Solve radical and complex fraction problems

Essential Questions:

- What are the topics covered on the standardized test?
- What score is needed to pass the test?
- What does the test look like? Number of questions? Multiple choice?

Summative Assessment and/ or Summative Criteria to demonstrate mastery of the Unit.

- **Standardized Test (Accuplacer)**

Formative Assessment:

- **Self -Assessments**
- **Homework**
- **On-Line practice tests**

Resources:

Learning Resource Center
Elementary Algebra Study Guide for the ACCUPLACER (CPT)
ElemAlg-1.doc

Topic/ Selection	Suggested Timeline per topic	General Objectives	Instructional Activities	Suggested Benchmarks/ Assessments	NJSLS Standards
Review order of operations, evaluating expressions, and solving equations	2 Days	To simplify expressions and solve equations	• Review operation rules for simplifying • Write the expression, substitute for the variable and simplify • Use distributive property to remove parenthesis • Use inverse operations to isolate the variable	• Assess understanding by oral participation • Circulate & monitor student's progress as they work individually or in groups • Assign class work (use technology if possible) • Have students show work on board • Check for understanding • Closure • Assign homework	A.REI.B.3
Review word problems, formulas, inequalities, Laws of exponents, polynomials and factoring	2 days	To simplify expressions and solve equations and inequalities by factoring	• Solve for a given variable in a formula • Translate word problems to math equations and vice versa • Simplify expressions using laws of exponents • Simplify polynomials by adding, subtracting, multiplying and dividing • Factor binomials and trinomials	• Assess understanding by oral participation • Circulate & monitor student's progress as they work individually or in groups • Assign class work (use technology if possible) • Have students show work on board • Check for understanding • Closure • Assign homework	A-CED.A.4 A-APR.A.1 A-REI.B.4B A-SSE.B.3C

Review Quadratic equations, systems of equations, rational and radical expressions	2 days	To simplify expressions and solve equations	• Solve quadratic equations by factoring, completing the square and using the quadratic formula • Solve systems of equations by substitution, elimination and matrices • Simplify rational expressions by factoring • Simplify radical expression using rules of radicals	• Assess understanding by oral participation • Circulate & monitor student's progress as they work individually or in groups • Assign class work (use technology if possible) • Have students show work on board • Check for understanding • Closure • Assign homework	A.CED.A.3 A.REI.C A.REI.A.2
Review And Assessment	2 days	To receive a passing score on the state mandated assessment		• Practice worksheet/test • Unit test	A.CED.A A.APR.A.1 A.REI.A,B,C A.SSE-B

Suggested Modifications for Special Education, English Language Learners and Gifted Students:
*Consistent with individual plans, when appropriate.

- Below-level learners can be provided with graphic organizers, study guides and printed notes
- Restructure lesson using UDL principals (http://www.cast.org/our-work/about-udl.html#.VXmoXcfD_UA); structure lessons around questions that are authentic, relate to students' interests, social/family background and knowledge of their community.
- Provide students with multiple choices for how they can represent their understanding (e.g. multisensory techniques- auditory/visual aids; pictures, illustrations, graphs, charts, data tables, multimedia, modeling).
- Provide multiple grouping opportunities for students to share their ideas and to encourage work among various backgrounds and cultures (e.g. multiple representation and multimodal experiences).
- Provide ELL students with multiple literacy strategies including websites with various language options.

Suggested Technological Innovations/ Use:

Teachers are encouraged to use electronic assessments to determine mastery of concepts taught throughout the unit. Teachers should allow students to use graphing calculators when appropriate for educational advancement.

If available and/or applicable:

- Classroom Desktop PC/Smart Board
- Scientific and/or Graphing Calculator
- Microsoft Power Point® and/or Smart Board® Presentations/Lessons
- Chromebooks/Chrome Cart
- Smart Phones
- SWMHS Computer Lab

Cross Curricular/ 21st Century Connections:

9.1 21st Century Life and Career Skills: All students will demonstrate the creative, critical thinking, collaboration, and problem-solving skills needed to function successfully as both global citizens and workers in diverse ethnic and organizational cultures.
9.2 21st Century Life and Career Skills: Personal Financial Literacy: All students will develop skills and strategies that promote personal and financial responsibility related to financial planning, savings, investment and charitable giving in the global economy.
9.3 21st Century Life and Career Skills: Career Awareness, Exploration, and Preparation: All students will apply knowledge about and engage in the process of career awareness, exploration, and preparation in order to navigate the globally competitive work environment of the information age.

Unit 2: Order of Operations and Evaluation

Summary of the Unit: This unit introduces simplifying expressions using order of operations and evaluating expressions by substitution method.

Enduring Understanding: By the end of this unit students will know how:

- To simplify expressions
- To use the distributive property
- To evaluate an expression for given values

Essential Questions:

- Will the order in which you simplify an expression change the outcome of your answer?
- Will you get the same answer if you do the problem on a calculator?

Summative Assessment and/ or Summative Criteria to demonstrate mastery of the Unit.

- **Quiz/Test**

Formative Assessment

- **Self-assessments**
- **Homework**
- **On-line assessment tools**

Resources:

Learning Resource Center
Elementary Algebra Study Guide for the ACCUPLACER (CPT)
ElemAlg-1.doc

Topic/ Selection	Suggested Timeline per topic	General Objectives	Instructional Activities	Suggested Benchmarks/ Assessments	NJSLS Standards
Order of Operations	2 days	To simplify expressions by using order of operation rules	• Use PEMDAS to simplify expressions • Use distributive property to remove parentheses • Work from inside out to simplify expressions with multiple parenthesis	• Assess understanding by oral participation • Circulate & monitor student's progress as they work individually or in groups • Assign class work (use technology if possible) • Have students show work on board • Check for understanding	A.REI.B.3

				• Closure • Assign homework	
Evaluating Expressions	2 days	To simplify expressions for given values by substitution	• Substitute given values for the variable and simplify • Simplify expressions involving negative numbers and exponents, ie.: $-x^2$ when x = 3 and $(-x)^2$ when x=3	• Assess understanding by oral participation • Circulate & monitor student's progress as they work individually or in groups • Assign class work (use technology if possible) • Have students show work on board • Check for understanding • Closure • Assign homework	A.SSE.1 A.REI.B
Assessment	1 day			• Practice worksheet/test • Unit test	A-SSE.1 A-REI.B

Suggested Modifications for Special Education, English Language Learners and Gifted Students:
*Consistent with individual plans, when appropriate.

- Below-level learners can be provided with graphic organizers, study guides and printed notes
- Restructure lesson using UDL principals (http://www.cast.org/our-work/about-udl.html#.VXmoXcfD_UA); structure lessons around questions that are authentic, relate to students' interests, social/family background and knowledge of their community.
- Provide students with multiple choices for how they can represent their understanding (e.g. multisensory techniques- auditory/visual aids; pictures, illustrations, graphs, charts,
- data tables, multimedia, modeling).
- Provide multiple grouping opportunities for students to share their ideas and to encourage work among various backgrounds and cultures (e.g. multiple representation and multimodal experiences).
- Provide ELL students with multiple literacy strategies including websites with various language options.

Suggested Technological Innovations/ Use:

Teachers are encouraged to use electronic assessments to determine mastery of concepts taught throughout the unit. Teachers should allow students to use graphing calculators when appropriate for educational advancement.

If available and/or applicable:

- Classroom Desktop PC/Smart Board
- Scientific and/or Graphing Calculator
- Microsoft Power Point® and/or Smart Board® Presentations/Lessons
- Chromebooks/Chrome Cart
- Smart Phones
- SWMHS Computer Lab

Cross Curricular/ 21st Century Connections:

9.1 21st Century Life and Career Skills: All students will demonstrate the creative, critical thinking, collaboration, and problem-solving skills needed to function successfully as both global citizens and workers in diverse ethnic and organizational cultures.
9.2 21st Century Life and Career Skills: Personal Financial Literacy: All students will develop skills and strategies that promote personal and financial responsibility related to financial planning, savings, investment and charitable giving in the global economy.
9.3 21st Century Life and Career Skills: Career Awareness, Exploration, and Preparation: All students will apply knowledge about and engage in the process of career awareness, exploration, and preparation in order to navigate the globally competitive work environment of the information age.

Unit 3: Solving Linear Equations

Summary of the Unit: This unit introduces Linear Equations. Students learn to solve simple one-step equations, two-step equations, equations with variables on both sides and eventually progressing to more complex multi-step equations. Students will also learn how to solve for variables in a formula.

Enduring Understanding: By the end of this unit students will know how

- To solve an equation in one-variable
- To solve for a variable in a formula

Essential Questions:

- How do we represent unknown quantities?
- How can the value of an unknown variable be found?

- When/Why would solving for a variable in a formula be beneficial?

Summative Assessment and/ or Summative Criteria to demonstrate mastery of the Unit.

- **Quiz/Test**

Formative Assessment

- **Self-assessments**
- **Homework**
- **On-line assessment tools**

Resources: Learning Resource Center and Elementary Algebra Study Guide for the ACCUPLACER (CPT) ElemAlg-1.doc

Topic/ Selection	**Suggested Timeline per topic**	**General Objectives**	**Instructional Activities**	**Suggested Benchmarks/ Assessments**	**NJSLS Standards**
Solving Equations (one-step, two-step, multi-step)	2 days	To solve linear equations using addition, subtraction, multiplication, division and distribution.	• Use inverse operations to isolate the variables • Use distributive property to remove parenthesis • Check your solutions using substitution	• Assess understanding by oral participation • Circulate & monitor student's progress as they work individually or in groups • Assign class work (use technology if possible) • Have students show work on board • Check for understanding • Closure • Assign homework	A.CED.A1 A.REI.A.1 A.REI.B3
Solve Literal Equations	1 day	To convert word problems into math problems.	• Create a list of words that mean add, subtract, multiply and divide • Convert literal equations to math equations and solve	• Assess understanding by oral participation • Circulate & monitor student's progress as they work individually or in groups • Assign class work (use technology if possible)	A.CED.A.4

			• Convert math equations to literal equations	• Have students show work on board • Check for understanding • Closure • Assign homework	
Transform formulas	2 days	To transform formulas to describe one quantity in terms of the others	• Use steps for solving an equation to describe one quantity in terms of the others in given formulas	• Assess understanding by oral participation • Circulate & monitor student's progress as they work individually or in groups • Assign class work (use technology if possible) • Have students show work on board • Check for understanding • Closure • Assign homework	A.CED.A1 A.REI.A.1 A.REI.B3
Review Assessment	2 days			• Practice worksheet/test • Unit test	A.CED.A1 A.REI.A1 A.REI.B3 A.CED.A.4

Suggested Modifications for Special Education, English Language Learners and Gifted Students:
*Consistent with individual plans, when appropriate.

- Below-level learners can be provided with graphic organizers, study guides and printed notes
- Restructure lesson using UDL principals (http://www.cast.org/our-work/about-udl.html#.VXmoXcfD_UA); structure lessons around questions that are authentic, relate to students' interests, social/family background and knowledge of their community.
- Provide students with multiple choices for how they can represent their understanding (e.g. multisensory techniques- auditory/visual aids; pictures, illustrations, graphs, charts,
- data tables, multimedia, modeling).

- Provide multiple grouping opportunities for students to share their ideas and to encourage work among various backgrounds and cultures (e.g. multiple representation and multimodal experiences).
- Provide ELL students with multiple literacy strategies including websites with various language options.

Suggested Technological Innovations/ Use:

Teachers are encouraged to use electronic assessments to determine mastery of concepts taught throughout the unit. Teachers should allow students to use graphing calculators when appropriate for educational advancement.

If available and/or applicable:

- Classroom Desktop PC/Smart Board
- Scientific and/or Graphing Calculator
- Microsoft Power Point® and/or Smart Board® Presentations/Lessons
- Chromebooks/Chrome Cart
- Smart Phones
- SWMHS Computer Lab

Cross Curricular/ 21st Century Connections:

9.1 21st Century Life and Career Skills: All students will demonstrate the creative, critical thinking, collaboration, and problem-solving skills needed to function successfully as both global citizens and workers in diverse ethnic and organizational cultures.
9.2 21st Century Life and Career Skills: Personal Financial Literacy: All students will develop skills and strategies that promote personal and financial responsibility related to financial planning, savings, investment and charitable giving in the global economy.
9.3 21st Century Life and Career Skills: Career Awareness, Exploration, and Preparation: All students will apply knowledge about and engage in the process of career awareness, exploration, and preparation in order to navigate the globally competitive work environment of the information age.

Unit 4: Solving Absolute Value Equations & Inequalities

Summary of the Unit: In this unit, students will learn to solve absolute value equations and graph their solutions on a number line. Students will also learn how to solve and graph compound inequalities.

Enduring Understanding: By the end of this unit, student will know how

- To solve absolute value equations in one variable

- To solve absolute value inequalities in one variable
- To graph absolute value equations and inequalities on a number line

Essential Questions:

- What does absolute value mean?
- What do the inequality signs tell us when graphing the results?

Summative Assessment and/ or Summative Criteria to demonstrate mastery of the Unit.

- **Quiz/Test**

Formative Assessment

- **Self-assessments**
- **Homework**
- **On-line assessment tools**

Resources: Learning Resource Center and Elementary Algebra Study Guide for the ACCUPLACER (CPT) ElemAlg-1.doc

Topic/ Selection	Suggested Timeline per topic	General Objectives	Instructional Activities	Suggested Benchmarks/ Assessments	NJSLS Standards
Inequalities	2 days	To solve and graph inequalities using the same rules for solving equations	• Solve inequality problems • Emphasize inequality problems that require the inequality sign to change when multiplying or dividing by a negative number • Graph solutions on a number line • Stress open or closed circle, "and/or" graph	• Assess understanding by oral participation • Circulate & monitor student's progress as they work individually or in groups • Assign class work (use technology if possible) • Have students show work on board • Check for understanding • Closure • Assign homework	A.REI.3 A.REI.12

Absolute Value Equations	2 days	To solve absolute value equations	• Absolute value properties • Find both solutions for every problem • Graph solutions on a number line • Model equations that show real world situations	• Assess understanding by oral participation • Circulate & monitor student's progress as they work individually or in groups • Assign class work (use technology if possible) • Have students show work on board • Check for understanding • Closure • Assign homework	A.REI.3
Absolute value Inequalities	2 days	To solve absolute value inequalities and graph the solution set.	• Model different methods used to solve and graph inequalities • Graph solution set on a number line	• Assess understanding by oral participation • Circulate & monitor student's progress as they work individually or in groups • Assign class work (use technology if possible) • Have students show work on board • Check for understanding • Closure • Assign homework	A.CED.1 A.CED.3
Review & assessment	2 days			• Practice worksheet/test • Unit test	A.REI.3 A.CED.1 A.CED.3 A.REI.12
Suggested Modifications for Special Education, English Language Learners and Gifted Students: *Consistent with individual plans, when appropriate.					

- Below-level learners can be provided with graphic organizers, study guides and printed notes
- Restructure lesson using UDL principals (http://www.cast.org/our-work/about-udl.html#.VXmoXcfD_UA); structure lessons around questions that are authentic, relate to students' interests, social/family background and knowledge of their community.
- Provide students with multiple choices for how they can represent their understanding (e.g. multisensory techniques- auditory/visual aids; pictures, illustrations, graphs, charts,
- data tables, multimedia, modeling).
- Provide multiple grouping opportunities for students to share their ideas and to encourage work among various backgrounds and cultures (e.g. multiple representation and multimodal experiences).
- Provide ELL students with multiple literacy strategies including websites with various language options.

Suggested Technological Innovations/ Use:

Teachers are encouraged to use electronic assessments to determine mastery of concepts taught throughout the unit. Teachers should allow students to use graphing calculators when appropriate for educational advancement.

If available and/or applicable:

- Classroom Desktop PC/Smart Board
- Scientific and/or Graphing Calculator
- Microsoft Power Point® and/or Smart Board® Presentations/Lessons
- Chromebooks/Chrome Cart
- Smart Phones
- SWMHS Computer Lab

Cross Curricular/ 21st Century Connections:

9.1 21st Century Life and Career Skills: All students will demonstrate the creative, critical thinking, collaboration, and problem-solving skills needed to function successfully as both global citizens and workers in diverse ethnic and organizational cultures.
9.2 21st Century Life and Career Skills: Personal Financial Literacy: All students will develop skills and strategies that promote personal and financial responsibility related to financial planning, savings, investment and charitable giving in the global economy.
9.3 21st Century Life and Career Skills: Career Awareness, Exploration, and Preparation: All students will apply knowledge about and engage in the process of career awareness, exploration, and preparation in order to navigate the globally competitive work environment of the information age.

Sayreville Public Schools
Math 404 Curriculum/Half Year
2.5 Credits

Unit 5: Monomials, Laws of Exponents and Scientific Notation

Summary of the Unit: in this unit, students will learn how to multiply and divide monomials using laws of exponents. Students will also learn how to write a number in simpler form using scientific notation.

Enduring Understanding: By the end of this unit students will know how:

- To multiply monomials using the laws of exponents $a^m \bullet a^n = a^{m+n}$
- To divide monomials using the laws of exponents $\frac{a^m}{a^n} = a^{m-n}$
- To raise a power to a power using laws of exponents $(a^m)^n = a^{m \bullet n}$
- To write monomials with negative exponents using laws of exponents $a^{-n} = \frac{1}{a^n}$
- Any monomial raised to the power of zero is 1 $a^0 = 1$
- To rewrite very large numbers and very small numbers using scientific notation

Essential Questions:

- How can laws of exponents help in simplifying monomials?
- When would writing a number in scientific notation be helpful?

Summative Assessment and/ or Summative Criteria to demonstrate mastery of the Unit.

- **Quiz/Test**

Formative Assessment

- **Self-assessments**
- **Homework**
- **On-line assessment tools**

Resources: Learning Resource Center and Elementary Algebra Study Guide for the ACCUPLACER (CPT) ElemAlg-1.doc

Topic/ Selection	Suggested Timeline per topic	General Objectives	Instructional Activities	Suggested Benchmarks/ Assessments	NJSLS Standards
Properties of Exponents	3 days	To simplify expressions using laws of exponents	• When multiplying numbers with the same base, add	• Assess understanding by oral participation • Circulate & monitor student's progress as	A-SSE.1 A.SSE,B,3C

			exponents, $a^m \cdot a^n = a^{m+n}$ • When dividing numbers with the same base subtract exponents, $\frac{a^m}{a^n} = a^{m-n}$ • When raising a number with an exponent to a power multiply exponents $(a^m)^n = a^{m \cdot n}$ • Anything raised to a power of zero is 1, $a^0 = 1$ • Any negative exponent changes position from the top to bottom or bottom to top, $a^{-n} = \frac{1}{a^n}$	they work individually or in groups • Assign class work (use technology if possible) • Have students show work on board • Check for understanding • Closure • Assign homework	
Scientific Notation	1 day	To rewrite large or small numbers in simpler form using scientific notation.	• Convert very large numbers into scientific notation • Convert very small numbers into scientific notation	• Assess understanding by oral participation • Circulate & monitor student's progress as they work individually or in groups	N.RN.B

				• Assign class work (use technology if possible) • Have students show work on board • Check for understanding • Closure • Assign homework	
Review & Assess	2 days			• Practice worksheet/test • Unit test	A-SSE.1 A-SSE.B.3C

Suggested Modifications for Special Education, English Language Learners and Gifted Students:
*Consistent with individual plans, when appropriate.

- Below-level learners can be provided with graphic organizers, study guides and printed notes
- Restructure lesson using UDL principals (http://www.cast.org/our-work/about-udl.html#.VXmoXcfD_UA); structure lessons around questions that are authentic, relate to students' interests, social/family background and knowledge of their community.
- Provide students with multiple choices for how they can represent their understanding (e.g. multisensory techniques- auditory/visual aids; pictures, illustrations, graphs, charts,
- data tables, multimedia, modeling).
- Provide multiple grouping opportunities for students to share their ideas and to encourage work among various backgrounds and cultures (e.g. multiple representation and multimodal experiences).
- Provide ELL students with multiple literacy strategies including websites with various language options.

Suggested Technological Innovations/ Use:

Teachers are encouraged to use electronic assessments to determine mastery of concepts taught throughout the unit. Teachers should allow students to use graphing calculators when appropriate for educational advancement

If available and/or applicable:

- Classroom Desktop PC/Smart Board
- Scientific and/or Graphing Calculator
- Microsoft Power Point® and/or Smart Board® Presentations/Lessons
- Chromebooks/Chrome Cart
- Smart Phones

- SWMHS Computer Lab

Cross Curricular/ 21st Century Connections:

9.1 21st Century Life and Career Skills: All students will demonstrate the creative, critical thinking, collaboration, and problem-solving skills needed to function successfully as both global citizens and workers in diverse ethnic and organizational cultures.
9.2 21st Century Life and Career Skills: Personal Financial Literacy: All students will develop skills and strategies that promote personal and financial responsibility related to financial planning, savings, investment and charitable giving in the global economy.
9.3 21st Century Life and Career Skills: Career Awareness, Exploration, and Preparation: All students will apply knowledge about and engage in the process of career awareness, exploration, and preparation in order to navigate the globally competitive work environment of the information age.

Unit 6: Polynomials

Summary of the Unit: This unit explores polynomial operations. Students will classify polynomials, perform operations, factor and solve equations.

Enduring Understanding: By the end of this unit students will know how

- To add and subtract polynomials by combing like terms
- To multiple polynomials using the distributive property
- To solve equations involving polynomials

Essential Questions:

- What is the most important step when subtracting polynomials?
- How do you remove parenthesis when multiplying polynomials?

Summative Assessment and/ or Summative Criteria to demonstrate mastery of the Unit.

- **Quiz/Test**

Formative Assessment

- **Self-assessments**
- **Homework**

- **On-line assessment tools**

Resources: Learning Resource Center and Elementary Algebra Study Guide for the ACCUPLACER (CPT) ElemAlg-1.doc

Topic/ Selection	**Suggested Timeline per topic**	**General Objectives**	**Instructional Activities**	**Suggested Benchmarks/ Assessments**	**NJSLS Standards**
Polynomials – adding & subtracting	2 days	To add and subtract polynomials by combing like terms	• Horizontal Method • Vertical Method • Distribution of the subtraction sign (-) to the second polynomial	• Assess understanding by oral participation • Circulate & monitor student's progress as they work individually or in groups • Assign class work (use technology if possible) • Have students show work on board • Check for understanding • Closure • Assign homework	A.APR.A.1
Multiplying Polynomials	2 days	To Multiply polynomials by polynomials by using the distributive property	• Horizontal Method • Vertical Method • Distributive Property • FOIL Method	• Assess understanding by oral participation • Circulate & monitor student's progress as they work individually or in groups • Assign class work (use technology if possible) • Have students show work on board • Check for understanding • Closure • Assign homework	A.APR.A1

Solving Polynomial Equations	2 days	To solve equations involving polynomials.	• Simplify using distributive property • Solve using rules for solving equations	• Assess understanding by oral participation • Circulate & monitor student's progress as they work individually or in groups • Assign class work (use technology if possible) • Have students show work on board • Check for understanding • Closure • Assign homework	A-APR.A.1 A-APR.B.3
Review & Assess	2 days			• Practice worksheet/test • Unit test	A-APR.A.1 A-APR.B.3

Suggested Modifications for Special Education, English Language Learners and Gifted Students:
*Consistent with individual plans, when appropriate.

- Below-level learners can be provided with graphic organizers, study guides and printed notes
- Restructure lesson using UDL principals (http://www.cast.org/our-work/about-udl.html#.VXmoXcfD_UA); structure lessons around questions that are authentic, relate to students' interests, social/family background and knowledge of their community.
- Provide students with multiple choices for how they can represent their understanding (e.g. multisensory techniques- auditory/visual aids; pictures, illustrations, graphs, charts,
- data tables, multimedia, modeling).
- Provide multiple grouping opportunities for students to share their ideas and to encourage work among various backgrounds and cultures (e.g. multiple representation and multimodal experiences).
- Provide ELL students with multiple literacy strategies including websites with various language options.

Suggested Technological Innovations/ Use:

Teachers are encouraged to use electronic assessments to determine mastery of concepts taught throughout the unit. Teachers should allow students to use graphing calculators when appropriate for educational advancement.

If available and/or applicable:

- Classroom Desktop PC/Smart Board
- Scientific and/or Graphing Calculator
- Microsoft Power Point® and/or Smart Board® Presentations/Lessons
- Chromebooks/Chrome Cart
- Smart Phones
- SWMHS Computer Lab

Cross Curricular/ 21st Century Connections:

8.1.12.A.1 Technology Operations and Concepts
8.1.12.C.1 Communication and Collaboration
8.1.12.F.1 Critical Thinking, Problem Solving and Decision Making
8.2.12.E.3 Computational Thinking Program

9.1 21st Century Life and Career Skills: All students will demonstrate the creative, critical thinking, collaboration, and problem-solving skills needed to function successfully as both global citizens and workers in diverse ethnic and organizational cultures.
9.2 21st Century Life and Career Skills: Personal Financial Literacy: All students will develop skills and strategies that promote personal and financial responsibility related to financial planning, savings, investment and charitable giving in the global economy.
9.3 21st Century Life and Career Skills: Career Awareness, Exploration, and Preparation: All students will apply knowledge about and engage in the process of career awareness, exploration, and preparation in order to navigate the globally competitive work environment of the information age.

Unit 7: Factoring

Summary of the Unit: In unit 7, students will learn how to factor binomials and trinomials. Students will learn how to find the Greatest Common Factor (GCF), factor by grouping, factor trinomials, factor by completing the square and the use of the Quadratic Formula to factor, Students will also use these methods to solve quadratic equations.

Enduring Understanding: By the end of this unit students will know how:

- To factor out a GCF
- To factor a trinomial when a = 1 in $ax^2 + bx + c$
- To factor a trinomial when a > 1 in $ax^2 + bx + c$
- To factor a trinomial by completing the square

- To factor a trinomial using the Quadratic Formula
- To solve quadratic using above methods

Essential Questions:

- How can simplifying help solve a quadratic equation?
- How can factoring help simplify a polynomial?
- Which method is best in factoring trinomials?
- Will all the methods work on any problem?

Summative Assessment and/ or Summative Criteria to demonstrate mastery of the Unit.

- **Quiz/Test**

Formative Assessment

- **Self-assessments**
- **Homework**
- **On-line assessment tools**

Resources: Learning Resource Center and Elementary Algebra Study Guide for the ACCUPLACER (CPT) ElemAlg-1.doc

Topic/ Selection	Suggested Timeline per topic	General Objectives	Instructional Activities	Suggested Benchmarks/ Assessments	NJSLS Standards
Factoring (GCF)	2 days	To recognize common factors and use them to factor monomials out of polynomials.	• Define factors as integers multiplied together to get a product • Define common factors • Identify monomial & polynomial factors • Factor using distributive property	• Assess understanding by oral participation • Circulate & monitor student's progress as they work individually or in groups • Assign class work (use technology if possible) • Have students show work on board • Check for understanding • Closure	A.SSE.3 A.SSE.A.2

<table>
<tr><td></td><td></td><td></td><td>Factor expressions using GCF</td><td>Assign homework</td><td></td></tr>
<tr><td>Factoring (trinomials in the form ax^2 + bx + c when a = 1)</td><td>2 days</td><td>To factor trinomials and solve when a = 1</td><td>Create a table of two values whose product is c and sum is b
<table><tr><td>Product (c)</td><td>Sum (b)</td></tr><tr><td></td><td></td></tr></table>
Solve by setting each factor equal to equal</td><td>Assess understanding by oral participation
Circulate & monitor student’s progress as they work individually or in groups
Assign class work (use technology if possible)
Have students show work on board
Check for understanding
Closure
Assign homework</td><td>A.SSE.3</td></tr>
<tr><td>Factoring (trinomials in the form ax^2 + bx + c when a > 1)</td><td>2 days</td><td>To factor trinomials and solve when a>1.</td><td>Create a table of two values whose product is a•c and sum is b
<table><tr><td>Product (a•c)</td><td>Sum (b)</td></tr><tr><td></td><td></td></tr></table>
Use box method to find factors
<table><tr><td>ax^2</td><td>Factor(x)</td></tr><tr><td>Factor(x)</td><td>c</td></tr></table>
Find 4 GCF’s (columns and rows)</td><td>Assess understanding by oral participation
Circulate & monitor student’s progress as they work individually or in groups
Assign class work (use technology if possible)
Have students show work on board
Check for understanding
Closure
Assign homework</td><td>A.SSE.3</td></tr>
</table>

Factor (by completing the square)	2 days	To factor a trinomial by the method of completing the square.	• Introduce the process used to complete the square • Students will write the equation in the form of $ax^2 + bx = c$ • Students will take $\frac{1}{2}$ of b, square it, and add to both sides of the equation. Take the square root of both sides of the equation and solve find both the positive and negative radical answers.	• Assess understanding by oral participation • Circulate & monitor student's progress as they work individually or in groups • Assign class work (use technology if possible) • Have students show work on board • Check for understanding • Closure • Assign homework	A.SSE.3 A.REI.B.4b
Factor (using the quadratic formula)	2 days	To factor a trinomial using the quadratic formula.	• Use the formula to find solutions for the quadratic $x = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a}$ • Discuss rational and irrational roots	• Assess understanding by oral participation • Circulate & monitor student's progress as they work individually or in groups • Assign class work (use technology if possible) • Have students show work on board • Check for understanding • Closure • Assign homework	A.SSE.3 A.REI.B.4b

Review & Assess	2 days			• Practice worksheet/test • Unit test	A.SSE.3 A.SSE.A A.REI.B

Suggested Modifications for Special Education, English Language Learners and Gifted Students:
*Consistent with individual plans, when appropriate.

- Below-level learners can be provided with graphic organizers, study guides and printed notes
- Restructure lesson using UDL principals (http://www.cast.org/our-work/about-udl.html#.VXmoXcfD_UA); structure lessons around questions that are authentic, relate to students' interests, social/family background and knowledge of their community.
- Provide students with multiple choices for how they can represent their understanding (e.g. multisensory techniques- auditory/visual aids; pictures, illustrations, graphs, charts,
- data tables, multimedia, modeling).
- Provide multiple grouping opportunities for students to share their ideas and to encourage work among various backgrounds and cultures (e.g. multiple representation and multimodal experiences).
- Provide ELL students with multiple literacy strategies including websites with various language options.

Suggested Technological Innovations/ Use:

Teachers are encouraged to use electronic assessments to determine mastery of concepts taught throughout the unit. Teachers should allow students to use graphing calculators when appropriate for educational advancement.

If available and/or applicable:

- Classroom Desktop PC/Smart Board
- Scientific and/or Graphing Calculator
- Microsoft Power Point® and/or Smart Board® Presentations/Lessons
- Chromebooks/Chrome Cart
- Smart Phones
- SWMHS Computer Lab

Cross Curricular/ 21st Century Connections:
9.1 21st Century Life and Career Skills: All students will demonstrate the creative, critical thinking, collaboration, and problem-solving skills needed to function successfully as both global citizens and workers in diverse ethnic and organizational cultures.

9.2 21st Century Life and Career Skills: Personal Financial Literacy: All students will develop skills and strategies that promote personal and financial responsibility related to financial planning, savings, investment and charitable giving in the global economy.
9.3 21st Century Life and Career Skills: Career Awareness, Exploration, and Preparation: All students will apply knowledge about and engage in the process of career awareness, exploration, and preparation in order to navigate the globally competitive work environment of the information age.

Unit 8: 2D and 3D Shapes and Right Triangles

Summary of the Unit: In this unit, students will review geometry topics covered on the standardized test. Students will learn how to calculate area and perimeter (circumference) of regular shapes and complex shapes. Students will learn how to use the Pythagorean Theorem in solving problems. Finally, students will learn how to set up and solve problems using variables.

Enduring Understanding: By the end of this unit students will know how to:

- Calculate area and perimeter (circumference) of basic shapes
- Calculate area and perimeter of complex shapes
- Use the Pythagorean theorem to find the length of sides
- Solve problems by converting word problems into math problems

Essential Questions:

- How many different formulas are needed to solve the problem?
- When do you need to use the Pythagorean Theorem?
- When solving word problems, which side of the figure becomes the variable?

Summative Assessment and/ or Summative Criteria to demonstrate mastery of the Unit.

- **Quiz/Test**

Formative Assessment

- **Self-assessments**
- **Homework**
- **On-line assessment tools**

Resources: Learning Resource Center and Elementary Algebra Study Guide for the ACCUPLACER (CPT) ElemAlg-1.doc

Topic/ Selection	**Suggested Timeline per topic**	**General Objectives**	**Instructional Activities**	**Suggested Benchmarks/ Assessments**	**NJSLS Standards**
Geometry (perimeter, area) basic shapes	1 day	To complete perimeter (circumference and area of basic shapes	• Examine formulas for squares, rectangles, parallelograms, triangles, trapezoids and circles • Exam perimeter formulas for same shapes (circumference for circles)	• Assess understanding by oral participation • Circulate & monitor student's progress as they work individually or in groups • Assign class work (use technology if possible) • Have students show work on board • Check for understanding • Closure • Assign homework	G.GPE.B.7 G.SRT.C.8 G.GMD.A.3
Geometry (perimeter, area) complex figures	2 days	To compute perimeter and area of complex figures	• Explore problems involving Pythagorean Theorem: $a^2 + b^2 = c^2$ • Break complex figures into basic figures and compute • Find shaded regions by subtracting areas	• Assess understanding by oral participation • Circulate & monitor student's progress as they work individually or in groups • Assign class work (use technology if possible) • Have students show work on board • Check for understanding • Closure • Assign homework	G.GPE.B.7 G.SRJ.C.8 G.GMD.A.3
Geometry (word problem equations)	2 days	To solve word problems by	• Draw a picture using information given	• Assess understanding by oral participation	G.GPE.B.7 G.SRT.C.8 G.GMD.A.3

		computing area and perimeter	• Determine a variable for the missing value • Use area formulas to create an equation and solve	• Circulate & monitor student's progress as they work individually or in groups • Assign class work (use technology if possible) • Have students show work on board • Check for understanding • Closure • Assign homework	
Review & Asses	2 days			• Practice worksheet/test • Unit test	G.GPE.8.7 G.SRT.C.8 G.GMD.A.3

Suggested Modifications for Special Education, English Language Learners and Gifted Students:
*Consistent with individual plans, when appropriate.

- Below-level learners can be provided with graphic organizers, study guides and printed notes
- Restructure lesson using UDL principals (http://www.cast.org/our-work/about-udl.html#.VXmoXcfD_UA); structure lessons around questions that are authentic, relate to students' interests, social/family background and knowledge of their community.
- Provide students with multiple choices for how they can represent their understanding (e.g. multisensory techniques- auditory/visual aids; pictures, illustrations, graphs, charts,
- data tables, multimedia, modeling).
- Provide multiple grouping opportunities for students to share their ideas and to encourage work among various backgrounds and cultures (e.g. multiple representation and multimodal experiences).
- Provide ELL students with multiple literacy strategies including websites with various language options.

Suggested Technological Innovations/ Use:

Teachers are encouraged to use electronic assessments to determine mastery of concepts taught throughout the unit. Teachers should allow students to use graphing calculators when appropriate for educational advancement.

If available and/or applicable:

- Classroom Desktop PC/Smart Board
- Scientific and/or Graphing Calculator
- Microsoft Power Point® and/or Smart Board® Presentations/Lessons
- Chromebooks/Chrome Cart
- Smart Phones
- SWMHS Computer Lab

Cross Curricular/ 21st Century Connections:

9.1 21st Century Life and Career Skills: All students will demonstrate the creative, critical thinking, collaboration, and problem-solving skills needed to function successfully as both global citizens and workers in diverse ethnic and organizational cultures.
9.2 21st Century Life and Career Skills: Personal Financial Literacy: All students will develop skills and strategies that promote personal and financial responsibility related to financial planning, savings, investment and charitable giving in the global economy.
9.3 21st Century Life and Career Skills: Career Awareness, Exploration, and Preparation: All students will apply knowledge about and engage in the process of career awareness, exploration, and preparation in order to navigate the globally competitive work environment of the information age.

Unit 9: Radicals

Summary of the Unit: In this unit, students will learn how to simplify radicals, perform operations on radicals and simplify fractions with radicals in the denominator

Enduring Understanding: By the end of this unit students will know how to:

- Simplify radicals of perfect squares and cubes
- Simplify radicals consisting of some perfect squares and cubes
- Add, subtract and multiply radicals
- Divide fractions with radicals in the denominator

Essential Questions:

- Can radicals of non-perfect squares be simplified?
- How can you eliminate a radical in the denominator of a fraction?

Summative Assessment and/ or Summative Criteria to demonstrate mastery of the Unit.

- **Quiz/Test**

Formative Assessment

- **Self-assessments**
- **Homework**
- **On-line assessment tools**
- **Quizzes**
- **Observation**
- **Teacher-Student and Student-Student Conferencing**

Resources: Learning Resource Center and Elementary Algebra Study Guide for the ACCUPLACER (CPT) ElemAlg-1.doc

Topic/ Selection	**Suggested Timeline per topic**	**General Objectives**	**Instructional Activities**	**Suggested Benchmarks/ Assessments**	**NJSLS Standards**
Radicals	1 day	To simplify radicals	• Create a list of the first 15 perfect squares • Create a list of the first 10 perfect cubes • Review factor trees and/or factor ladders • Introduce the definition of rational exponents: $a^{\frac{m}{n}} = \sqrt[n]{a^m}$	• Assess understanding by oral participation • Circulate & monitor student's progress as they work individually or in groups • Assign class work (use technology if possible) • Have students show work on board • Check for understanding • Closure • Assign homework	A-REI.A.2 N-RN.A.2
	1 day	To add and subtract radical expressions	• Review combining like terms • Simplify radicals first	• Assess understanding by oral participation • Circulate & monitor student's progress as	A.REI.A.2 N-RN.A.2

			• Distribute the minus sign when subtracting	they work individually or in groups • Assign class work (use technology if possible) • Have students show work on board • Check for understanding • Closure • Assign homework	
	2 days	To multiply and divide radical expressions	• Rationalize the denominator of radical expressions • Multiply radicals then simplify • Review distributive property and FOIL method when multiplying binomials	• Assess understanding by oral participation • Circulate & monitor student's progress as they work individually or in groups • Assign class work (use technology if possible) • Have students show work on board • Check for understanding • Closure • Assign homework	A.REI.A.2 N.RN.A.2
Review & Assess	2 days			• Practice worksheet/test • Unit test	A.REI.A.2 N.RN.A.2

Suggested Modifications for Special Education, English Language Learners and Gifted Students:
*Consistent with individual plans, when appropriate.

- Below-level learners can be provided with graphic organizers, study guides and printed notes
- Restructure lesson using UDL principals (http://www.cast.org/our-work/about-udl.html#.VXmoXcfD_UA); structure lessons around questions that are authentic, relate to students' interests, social/family background and knowledge of their community.

- Provide students with multiple choices for how they can represent their understanding (e.g. multisensory techniques- auditory/visual aids; pictures, illustrations, graphs, charts,
- data tables, multimedia, modeling).
- Provide multiple grouping opportunities for students to share their ideas and to encourage work among various backgrounds and cultures (e.g. multiple representation and multimodal experiences).
- Provide ELL students with multiple literacy strategies including websites with various language options.

Suggested Technological Innovations/ Use:

Teachers are encouraged to use electronic assessments to determine mastery of concepts taught throughout the unit. Teachers should allow students to use graphing calculators when appropriate for educational advancement.

If available and/or applicable:

- Classroom Desktop PC/Smart Board
- Scientific and/or Graphing Calculator
- Microsoft Power Point® and/or Smart Board® Presentations/Lessons
- Chromebooks/Chrome Cart
- Smart Phones
- SWMHS Computer Lab

Cross Curricular/ 21st Century Connections:

9.1 21st Century Life and Career Skills: All students will demonstrate the creative, critical thinking, collaboration, and problem-solving skills needed to function successfully as both global citizens and workers in diverse ethnic and organizational cultures.
9.2 21st Century Life and Career Skills: Personal Financial Literacy: All students will develop skills and strategies that promote personal and financial responsibility related to financial planning, savings, investment and charitable giving in the global economy.
9.3 21st Century Life and Career Skills: Career Awareness, Exploration, and Preparation: All students will apply knowledge about and engage in the process of career awareness, exploration, and preparation in order to navigate the globally competitive work environment of the information age.

Unit 10: Standardized Test Review

Summary of the Unit: This unit will be a brief review of the topics covered on the standardized test. Students will review equations, inequalities, polynomials, factoring, radicals and the geometry portion of the exam.

Enduring Understanding: By the end of this unit students will:

- Understand the above topics enough to be successful on the standardized test
- Be confident in their ability to answer problems correctly to obtain a passing score

Essential Questions:

- What if I encounter problems we did not cover in class?
- What do I do if I forgot how to do a problem?
- What happens if I do not pass this test?

Summative Assessment and/ or Summative Criteria to demonstrate mastery of the Unit.

- **Quiz/Test**

Formative Assessment

- **Self-assessments**
- **Homework**
- **On-line assessment tools**

Resources: Learning Resource Center and Elementary Algebra Study Guide for the ACCUPLACER (CPT) ElemAlg-1.doc

Topic/ Selection	Suggested Timeline per topic	General Objectives	Instructional Activities	Suggested Benchmarks/ Assessments	NJSLS Standards
Standardized Test Review & Assessment	3 days	To prepare and review the essential topics covered on the standardized test.	• Work on a practice test aligned to the standardized test • Log onto the practice test and complete for a score • Review test taking skills and strategies	• Assess understanding by oral participation • Circulate & monitor student's progress as they work individually or in groups • Assign class work (use technology if possible) • Have students show work on board	A.CED.4 A.REI.A,B,C A.APR.A.1

				• Check for understanding • Closure • Assign homework	

Suggested Modifications for Special Education, English Language Learners and Gifted Students:
*Consistent with individual plans, when appropriate.

- Below-level learners can be provided with graphic organizers, study guides and printed notes
- Restructure lesson using UDL principals (http://www.cast.org/our-work/about-udl.html#.VXmoXcfD_UA); structure lessons around questions that are authentic, relate to students' interests, social/family background and knowledge of their community.
- Provide students with multiple choices for how they can represent their understanding (e.g. multisensory techniques- auditory/visual aids; pictures, illustrations, graphs, charts,
- data tables, multimedia, modeling).
- Provide multiple grouping opportunities for students to share their ideas and to encourage work among various backgrounds and cultures (e.g. multiple representation and multimodal experiences).
- Provide ELL students with multiple literacy strategies including websites with various language options.

Suggested Technological Innovations/ Use:

Teachers are encouraged to use electronic assessments to determine mastery of concepts taught throughout the unit. Teachers should allow students to use graphing calculators when appropriate for educational advancement.

If available and/or applicable:

- Classroom Desktop PC/Smart Board
- Scientific and/or Graphing Calculator
- Microsoft Power Point® and/or Smart Board® Presentations/Lessons
- Chromebooks/Chrome Cart
- Smart Phones
- SWMHS Computer Lab

Cross Curricular/ 21st Century Connections:

9.1 21st Century Life and Career Skills: All students will demonstrate the creative, critical thinking, collaboration, and problem-solving skills needed to function successfully as both global citizens and workers in diverse ethnic and organizational cultures.
9.2 21st Century Life and Career Skills: Personal Financial Literacy: All students will develop skills and strategies that promote personal and financial responsibility related to financial planning, savings, investment and charitable giving in the global economy.

9.3 21st Century Life and Career Skills: Career Awareness, Exploration, and Preparation: All students will apply knowledge about and engage in the process of career awareness, exploration, and preparation in order to navigate the globally competitive work environment of the information age.

Unit 11: Complex Fractions & Equations

Summary of the Unit: In this unit, students will be able to perform operations on complex fractions and solve complex equations by finding the common denominator, factoring and simplifying.

Enduring Understanding: By the end of this unit students will know how to:

- Add and subtract complex fractions
- Find common denominators
- Simplify complex fractions
- Solve complex fraction equations

Essential Questions:

- What is the most important step when adding and/or subtracting fractions?
- How do you know if any of your answers are extraneous solutions?

Summative Assessment and/ or Summative Criteria to demonstrate mastery of the Unit.

- **Quiz/Test**

Formative Assessment

- **Self-assessments**
- **Homework**
- **On-line assessment tools**

Resources: Learning Resource Center and Elementary Algebra Study Guide for the ACCUPLACER (CPT) ElemAlg-1.doc

Topic/ Selection	Suggested Timeline per topic	General Objectives	Instructional Activities	Suggested Benchmarks/ Assessments	NJSLS Standards
Complex Fractions & Equations	2 days	To calculate the sum and difference of	• Review finding the common denominator	• Assess understanding by oral participation	A.REI.A.2 N.RN.A.2

		complex fraction problems.	• Add fractions with variables in numerator and/or denominator • Subtract fractions with variables in numerator and/or denominator	• Circulate & monitor student's progress as they work individually or in groups • Assign class work (use technology if possible) • Have students show work on board • Check for understanding • Closure • Assign homework	
	2 days	To simplify division of complex fractions	• Treat as two separate problems • Implore keep/change/flip method (multiply by the reciprocal) after simplifying numerator and denominator • Cancel factors and finalize answer	• Assess understanding by oral participation • Circulate & monitor student's progress as they work individually or in groups • Assign class work (use technology if possible) • Have students show work on board • Check for understanding • Closure • Assign homework	A.REI.A.2 N.RN.A.2
	2 days	To solve complex fraction equations	• Rewrite each fraction using the common denominator • Perform operation	• Assess understanding by oral participation • Circulate & monitor student's progress as they work individually or in groups	A.REI.A.2 N.RN.A.2

			• Solve the equation by isolating the variable	• Assign class work (use technology if possible) • Have students show work on board • Check for understanding • Closure • Assign homework	
Review & Assess	2 days			• Practice worksheet/test • Unit test	A.REI.A.2 N.RN.A.2

Suggested Modifications for Special Education, English Language Learners and Gifted Students:
*Consistent with individual plans, when appropriate.

- Below-level learners can be provided with graphic organizers, study guides and printed notes
- Restructure lesson using UDL principals (http://www.cast.org/our-work/about-udl.html#.VXmoXcfD_UA); structure lessons around questions that are authentic, relate to students' interests, social/family background and knowledge of their community.
- Provide students with multiple choices for how they can represent their understanding (e.g. multisensory techniques- auditory/visual aids; pictures, illustrations, graphs, charts,
- data tables, multimedia, modeling).
- Provide multiple grouping opportunities for students to share their ideas and to encourage work among various backgrounds and cultures (e.g. multiple representation and multimodal experiences).
- Provide ELL students with multiple literacy strategies including websites with various language options.

Suggested Technological Innovations/ Use:

Teachers are encouraged to use electronic assessments to determine mastery of concepts taught throughout the unit. Teachers should allow students to use graphing calculators when appropriate for educational advancement.

If available and/or applicable:

- Classroom Desktop PC/Smart Board
- Scientific and/or Graphing Calculator
- Microsoft Power Point® and/or Smart Board® Presentations/Lessons
- Chromebooks/Chrome Cart

- Smart Phones
- SWMHS Computer Lab

Cross Curricular/ 21st Century Connections:

9.1 21st Century Life and Career Skills: All students will demonstrate the creative, critical thinking, collaboration, and problem-solving skills needed to function successfully as both global citizens and workers in diverse ethnic and organizational cultures.

9.2 21st Century Life and Career Skills: Personal Financial Literacy: All students will develop skills and strategies that promote personal and financial responsibility related to financial planning, savings, investment and charitable giving in the global economy.

9.3 21st Century Life and Career Skills: Career Awareness, Exploration, and Preparation: All students will apply knowledge about and engage in the process of career awareness, exploration, and preparation in order to navigate the globally competitive work environment of the information age.