Knob Noster R-VIII School District

We exist to empower learning through success for every student.

Math Curriculum

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Math Curriculum

KG Year At-A-Glance:

KG:

- K.NS.A.1
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1st Grade Year At-A-Glance:

1st Grade:

- Number Sense A:
- Relationships and Algebraic Thinking c: Add and subtract within 20.
- Number Sense and Operations in Base Ten A: Understand place value of two-digit numbers.
- 1.OA5
- 1.GMA
- 1.GMC

2nd Grade Year At-A-Glance:

2nd Grade:

- 2.NBT.B.6, 2.NBT.B.7, Adding/Subtraction with regrouping.
- 2.GM.D.10, 2.GM.D.11, Money
- 2.DS.A.4, Solve word problems.
- 2.DS.A.1, 2.DS.A.2, Reading and interpreting charts/graphs.

3rd Grade Year At-A-Glance:

3rd Grade:

- The student will use place value understanding and properties of operations to perform multi-digit arithmetic.
- The student will read, write and identify whole numbers within 100,000 using base ten numerals, number names and expanded form.
- The student will demonstrate fluency with addition and subtraction within 1000.
- The student will use multiplication and division within 100 to solve problems.
- The student will understand a unit fraction as the quantity formed by one part when a whole is partitioned into equal parts.
- The student will use the four operations to solve word problems.
- The student will reason with shapes and their attributes.

- The student will represent and analyze data.

4th Grade Year At-A-Glance:

4th Grade:

- OA5, NBT1, NBT2,
- NBT4
- NBT5, NBT6
- NF1-7, MD4
- 4.G.A1-3, 4.MD.A.1-7

5th Grade Year At-A-Glance:

5th Grade:

- NBT A
- NF A/B
- GM A
- GM B
- GM C
- GM D

6th Grade Year At-A-Glance:

6th Grade:

- 6. RP.A
- Understand and use ratios to solve problems.
- 6.NS.A
- Apply and extend previous understandings of multiplication and division to divide fractions by fractions
- 6.NS.B
- Compute with non-negative multi-digit numbers and find common factors and multiples
- 6.NS.C Apply and extend previous understandings of numbers to the system of rational numbers
- 6.EEI.A
- Apply and extend previous understandings of arithmetic to algebraic expressions
- 6.EEI.B
- Reason about and solve one-variable equations and inequalities
- 6.EEI.C
- Represent and analyze quantitative relationships between dependent and independent variables
- 6.GM.A
- Solve problems involving area, surface area, and volume
- 6.DSP.A
- Develop understanding of statistical variability

- Unit 8: Data Sets and Distributions End of Unit Assessment
- 6.DSP.B
- Summarize and describe distribution
  - Unit 8: Data Sets and Distributions End of Unit Assessment

7th Grade Year At-A-Glance:

7th Grade:

- 7.RP.A, Ratios & Proportional Relationships, Analyze proportional relationships and use them to solve problems.
  - Unit 4 Practice Problems
- 7.NS.A, Number Sense & Operations, Apply and extend previous understandings of operations to add, subtract, multiply and divide rational numbers.
- 7.EEI.A, Expressions, Equations & Inequalities, Use properties of operations to generate equivalent expressions.
- 7.EEI.B, Expressions, Equations & Inequalities, Solve problems using numerical and algebraic expressions and equations.
- 7.GM.A, Geometry & Measurement, Draw and describe geometrical figures and describe the relationships between them.
- 7.GM.B, Geometry & Measurement, Apply and extend previous understandings of angle measure, area and volume.
- 7.DSP.A, Data, Statistics & Probability, Use random sampling to draw inferences about a population.
- 7.DSP.B, Data, Statistics & Probability, Draw informal comparative inferences about two populations.
- 7.DSP.C, Data, Statistics & Probability, Develop, use and evaluate probability models.

8th Grade Year At-A-Glance:

8th Grade (Pre Algebra):

- NS.A Know that there are numbers that are not rational, and approximate them by rational numbers.
- EEI.A Work with radicals and integer exponents.
- EEI.B Understand the connections between proportional relationships, lines and linear equations.
- EEI.C Analyze and solve linear equations and inequalities and pairs of simultaneous linear equations.
- GM.A Understand congruence and similarity.
- GM.B Understand and apply the Pythagorean Theorem.
- GM.C Solve problems involving volume of cones, pyramids and spheres.
- DSP.A Investigate patterns of association in bivariate data.
- F.AB Define, evaluate and compare functions. Use functions to model relationships between quantities.

Alg A Year At-A-Glance:

Alg A:

- Use units to solve problems., A1.NQ.B Use units to solve problems.
- Create equations that describe various relationships., A1.NQ.A Extend and use properties of rational exponents., A1.SSE.A Interpret and use structure., A1.CED.A Create equations that describe linear, quadratic, and exponential relationships., A1.BF.A.1 Build new functions from existing functions (linear, quadratic, and exponential).
- Solve and interpret equations that describe various relationships., A1.REI.A Understand solving equations as a process, and solve equations and inequalities in one variable., A1.REI.B Solve systems of equations., A1.APR.A Perform operations on polynomials.

Analyze various functions using different representations., A1.REI.C Represent and solve linear and exponential equations and inequalities graphically., A1.IF.C Analyze linear, quadratic, and exponential functions using different representations., A1.LQE.A Construct and compare linear, quadratic, and exponential models and solve problems.

Understand and interpret the concept of a function and its notation in terms of the context., A1.IF.A Understand the concept of a function and use function notation., A1.IF.B Interpret linear, quadratic, and exponential functions in terms of the context., A1.LQE.B Use arithmetic and geometric sequences.

Summarize, represent, and interpret data., A1.DS.A Summarize, represent, and interpret data.

Alg B Year At-A-Glance:

Alg B:

Use units to solve problems., A1.NQ.B Use units to solve problems.

Create equations that describe various relationships., A1.NQ.A Extend and use properties of rational exponents., A1.SSE.A Interpret and use structure., A1.CED.A Create equations that describe linear, quadratic, and exponential relationships., A1.BF.A.1 Build new functions from existing functions (linear, quadratic, and exponential).

Solve and interpret equations that describe various relationships., A1.REI.A Understand solving equations as a process, and solve equations and inequalities in one variable., A1.REI.B Solve systems of equations., A1.APR.A Perform operations on polynomials.

Analyze various functions using different representations., A1.REI.C Represent and solve linear and exponential equations and inequalities graphically., A1.IF.C Analyze linear, quadratic, and exponential functions using different representations., A1.LQE.A Construct and compare linear, quadratic, and exponential models and solve problems.

Understand and interpret the concept of a function and its notation in terms of the context., A1.IF.A Understand the concept of a function and use function notation., A1.IF.B Interpret linear, quadratic, and exponential functions in terms of the context., A1.LQE.B Use arithmetic and geometric sequences.

Summarize, represent, and interpret data., A1.DS.A Summarize, represent, and interpret data.

Alg I Year At-A-Glance:

Alg I:

Use units to solve problems., A1.NQ.B Use units to solve problems.

Create equations that describe various relationships., A1.NQ.A Extend and use properties of rational exponents., A1.SSE.A Interpret and use structure., A1.CED.A Create equations that describe linear, quadratic, and exponential relationships., A1.BF.A.1 Build new functions from existing functions (linear, quadratic, and exponential).

Solve and interpret equations that describe various relationships., A1.REI.A Understand solving equations as a process, and solve equations and inequalities in one variable., A1.REI.B Solve systems of equations.

A1.APR.A Perform operations on polynomials.

Analyze various functions using different representations., A1.REI.C Represent and solve linear and exponential equations and inequalities graphically., A1.IF.C Analyze linear, quadratic, and exponential functions using different representations., A1.LQE.A Construct and compare linear, quadratic, and exponential models and solve problems.

Understand and interpret the concept of a function and its notation in terms of the context., A1.IF.A Understand the concept of a function and use function notation., A1.IF.B Interpret linear, quadratic, and exponential functions in terms of the context., A1.LQE.B Use arithmetic and geometric sequences.

Summarize, represent, and interpret data.

A1.DS.A Summarize, represent, and interpret data.

Alg II Year At-A-Glance:

Alg II:

Perform operations using various number sets.

Solve and interpret equations and inequalities that describe various relationships.

Create new functions from existing functions by performing various operations

Create and use quadratic and exponential functions to model and solve real world problems.

- Summarize, represent and interpret data to make inferences and justify conclusions.

Geometry Year At-A-Glance:

Geometry:

- G.CO.A.1 Experiment with transformations in the plane
- Prove geometric theorems algebraically and logically, G.CO.C Prove Geometric Theorems
- Understand and experiment with congruence and similarity transformations, G. CO.B Understand congruence in terms of rigid motion, G.SRT.B Prove theorems involving similarity
- Define Trigonometric ratios and solve problems involving right triangles, G.SRT. C Define trigonometric ratios, and solving problems using right triangles
- Apply theorems and formulas related to circles to solve problems, G.C.A Understand and apply theorems about circles, G.C.B Find arc lengths and areas of sectors of circles, G.GPE.A Translate between the geometric descriptions and the equation for a conic section
- Understand independence and conditional probability and use them to interpret data, G. CP.A Understand independence and conditional probability and use them to interpret data.
- Use relationships between two and three dimensional objects to solve problems, G.CO.D Make geometric constructions, G. GMD. A Explain volume formulas and use them to solve problems, G. GMD. B Visualize relationships between two and three dimensional objects, G.MG.A Apply geometric concepts in modeling situations.

Statistics Year At-A-Glance:

Statistics:

- Calculate the probability of events
- Calculate and interpret summary statistics of univariate and bivariate data sets
- Appropriately collect data and analyze the data collection methods of published works
- Create and interpret data displays
- Recognize patterns and use equations to determine future values
- Draw conclusions and inferences from probability and summary statistics

Statistics Ap/DC Year At-A-Glance:

Statistics AP/DC:

- Describe the center, spread, shape, and irregularities of a data set
- Determine appropriate methods for data collection
- Design statistical experiments
- Appropriately display data graphically
- Determine the relationship between data sets
- Calculate probability
- Describe the sampling distribution
- Estimate and draw inferences for proportions and means
- Design, execute, and draw conclusions from hypothesis tests

College Alg DC (Year Long Class) Year At-A-Glance:

College Alg DC (Year Long Class):

- Solve equations and inequalities with a single variable

- Graph functions given its equation by considering its domain and using transformations
- Solve and graph polynomial equations with degree of three or larger
- Graph rational functions and determine the corresponding domain and range
- Determine the inverse function of an invertible function
- Evaluate and graph logarithmic and exponential functions
- Model exponential and logarithmic functions appropriately
- Solve systems of linear equations with two or three variables
- Use linear inequalities for linear programming

College Alg DC (Semester Long Class) Year At-A-Glance:

College Alg DC (Semester Long Class):

- Solve equations and inequalities with a single variable
- Graph functions given its equation by considering its domain and using transformations
- Solve and graph polynomial equations with degree of three or larger
- Graph rational functions and determine the corresponding domain and range
- Determine the inverse function of an invertible function
- Evaluate and graph logarithmic and exponential functions
- Model exponential and logarithmic functions appropriately
- Solve systems of linear equations with two or three variables
- Use linear inequalities for linear programming

Trig DC Year At-A-Glance:

Trig DC:

- Find the measure of an angle in radians and degrees
- Apply the trigonometric functions to right triangle applications
- Calculate trigonometric function values given a point on circle, with any radius
- Graph trigonometric functions and determine amplitude, phase shift, and period
- Prove trigonometric identities
- Solve trigonometric equations
- Solve triangles including the ambiguous case
- Determine approximate trigonometric function values for angles in degrees and radians using appropriate technology

Calculus AP/DC Year At-A-Glance:

Calculus AP/DC:

- Evaluate limits of algebraic, trigonometric, logarithmic, and exponential functions
- Determine continuity of function of a single real variable
- Differentiate algebraic, trigonometric, logarithmic, exponential, composite, and inverse functions
- Explain the geometric significance of the derivative of a function

- Analyze graphs of functions and solve extrema problems using derivatives
- Calculate higher order derivatives and calculate derivatives implicitly
- Apply methods of antidifferentiation
- Evaluate definite integrals
- using limits and antiderivatives
- Apply integration to work, area, volume, centroids, arc lengths, and differential equations
- Use differentials for approximation of functions when appropriate

AP Computer Science Principles Year At-A-Glance:

AP Computer Science Principles

- Unit 1 The Internet
- Unit 2 Digital Information
- Unit 3 Intro to Programming
- Unit 4 Big Data and Privacy
- Explore - AP Performance Task
- Unit 5 Building Apps
- Unit 6
- Create - AP Performance Task
- Unit 7 Post AP Data Tools

Priority Standard (Quick Look)	K	1	2	3	4	5	6	7	8	9	10	11	12
KG	K	1	2	3	4	5	6	7	8	9	10	11	12
1. Rote Count to 100 by 1's and 10's	I, M	R	R										

2. Count to tell the number of objects 0-20	I, M	R											
3. Read and write numerals and represent a number of objects from 0 to 20.	I, M												
4. Compare sets of objects and numerals 0-10	I, M												
5. Solve and understand addition and subtraction problems within 10.	I	R	R										
1st Grade	K	1	2	3	4	5	6	7	8	9	10	11	12
1. Counting on from any given number up to 120		R, M											
2. Add and subtract within 20, showing fluency within 10		I, M	R										
3. Understand that the two digits of a two-digit number represent amounts of tens and ones.		I, M	R										
4. Compare two two-digit numbers based on the meaning of the tens and ones digits, recording the results of comparisons with the symbols >, =, and <		I, M	R										
5. Skip counting-- Relate counting to addition and subtraction (e.g., by counting on 2 to add 2)		I	R,M										
2nd Grade	K	1	2	3	4	5	6	7	8	9	10	11	12
1.Adding/Subtraction with regrouping.		I	I,M										
2.Number Sense/Place Value		I	R										

3.Money		I	I, M										
4.Solve word problems.		I	I, M										
5.Reading and interpreting charts/graphs.		I	I, M										
3rd Grade	K	1	2	3	4	5	6	7	8	9	10	11	12
1. Use place value understanding and properties of operations to perform multi-digit arithmetic.				R									
2. Read, write and identify whole numbers within 100,000 using base ten numerals, number names and expanded form.				M									
3. Demonstrate fluency with addition and subtraction within 1000.				R									
4. Use multiplication and division within 100 to solve problems.				I									
5. Understand a unit fraction as the quantity formed by one part when a whole is partitioned into equal parts.				I									
6. Use the four operations to solve word problems.				I									
7. Reason with shapes and their attributes.				R									
8. Represent and analyze data.				R									
4th Grade	K	1	2	3	4	5	6	7	8	9	10	11	12
1. Interpret place value concepts to 1,000,000			I	R	M								

2. Add and Subtract numbers to 1,000,000				R	M								
3. Multiply and Divide large numbers using a variety of strategies				I	R-M								
4. Understand fractions taught at my grade level; simplify, mixed numbers to improper fractions and add and subtract with unlike denominators.				I	R								
5th Grade	K	1	2	3	4	5	6	7	8	9	10	11	12
1. Use place value system understanding to perform operations with multi-digit whole numbers to billions and decimals to thousandths.			I	R	R	M							
2. Perform operations with fractions and mixed numbers (+ and -) and decimals (+ - X / with whole number divisors).				I	R	M	R/M	R/M					
3. Classify two- and three-dimensional geometric shapes.	I	R	R	R	R	R/M							
4. Understand and compute the volume of rectangular prisms.					I	R/M	R	R					
5. Graph points on the Cartesian coordinate plane within the first quadrant.						I/M	R	R	R				
6. Convert measurements within a measurement system.				I	R	R/M	R	R	R				
6th Grade	K	1	2	3	4	5	6	7	8	9	10	11	12
1. Understand and use ratios to solve problems.						I	R/M	R/M					

2. Apply and extend previous understandings of multiplication and division to divide fractions by fractions						I	R/M						
3. Compute with non-negative multi-digit numbers and find common factors and multiples					I	R	R/M	R					
4. Apply and extend previous understandings of numbers to the system of rational numbers							I	R	R	R	R	R	R
5. Apply and extend previous understandings of arithmetic to algebraic expressions						I	R/M	R/M	R/M	R/M	R/M	R/M	R/M
6. Reason about and solve one-variable equations and inequalities						I	R/M						
7. Represent and analyze quantitative relationships between dependent and independent variables							I	R	M				
8. Solve problems involving area, surface area, and volume					I	R/M	R/M	R/M					
9. Develop understanding of statistical variability							I	R/M					
10. Summarize and describe distribution							I	R/M					
7th Grade	K	1	2	3	4	5	6	7	8	9	10	11	12
1. Analyze proportional relationships and use them to solve problems.						I	R	R/M					
2. Apply and extend previous understandings of operations to add, subtract, multiply and divide rational numbers.				I	R/M	R/M	R/M	R/M					

3. Use properties of operations to generate equivalent expressions.		I	R	R	R	R	R	R/M					
4. Solve problems using numerical and algebraic expressions and equations.			I	R	R	R	R	R/M					
5. Draw and describe geometrical figures and describe the relationships between them.	I	R	R	R	R	R	R	R/M					
6. Apply and extend previous understandings of angle measure, area and volume.					I	R	R	R/M					
7. Use random sampling to draw inferences about a population.								I/R/M					
8. Draw informal comparative inferences about two populations.								I/R/M					
9. Develop, use and evaluate probability models.						I	R	R/M					
8th Grade Pre-Algebra	K	1	2	3	4	5	6	7	8	9	10	11	12
1. Know that there are numbers that are not rational, and approximate them by rational numbers.								I	R/M				
2. Work with radicals and integer exponents.									I/R/M				
3. Understand the connections between proportional relationships, lines and linear equations.								I/R/M	I/R/M				
4. Analyze and solve linear equations and inequalities and pairs of simultaneous linear equations.								I	R/M				
5. Understand congruence and similarity.							I	R	M				

6. Understand and apply the Pythagorean Theorem.									I/R/M				
7. Solve problems involving volume of cones, pyramids and spheres.									I/R/M				
8. Investigate patterns of association in bivariate data.								I	R/M				
9. Define, evaluate and compare functions. Use functions to model relationships between quantities.								I	R/M				
ALG A	K	1	2	3	4	5	6	7	8	9	10	11	12
1. Use units to solve problems.							I	R	R	R	R/M		
2. Create equations that describe various relationships.								I	R	R	R	R	R/M
3. Solve and interpret equations that describe various relationships.							I	R	R	R	R	R	R/M
4. Analyze various functions using different representations.									I	R	R	R	R/M
5. Understand and interpret the concept of a function and its notation in terms of the context.										I	R/M		
6. Summarize, represent, and interpret data.							I	R	R	R	R	R	R/M
ALG B	K	1	2	3	4	5	6	7	8	9	10	11	12
1. Use units to solve problems.							I	R	R	R	R/M		
2. Create equations that describe various relationships.								I	R	R	R	R	R/M
3. Solve and interpret equations that describe various relationships.							I	R	R	R	R	R	R/M

4. Analyze various functions using different representations.									I	R	R	R	R/M
5. Understand and interpret the concept of a function and its notation in terms of the context.										I	R/M		
6. Summarize, represent, and interpret data.							I	R	R	R	R	R	R/M
ALG I	K	1	2	3	4	5	6	7	8	9	10	11	12
1. Use units to solve problems.							I	R	R	R/M			
2. Create equations that describe various relationships.								I	R	R	R	R/M	
3. Solve and interpret equations that describe various relationships.							I	R	R	R	R	R/M	
4. Analyze various functions using different representations.									I	R	R	R/M	
5. Understand and interpret the concept of a function and its notation in terms of the context.										I/R/M			
6. Summarize, represent, and interpret data.							I	R	R	R	R	R/M	
ALG II	K	1	2	3	4	5	6	7	8	9	10	11	12
1) perform operations using various number sets.										I/R	I/R/M	I/R/M	
2) create equations and inequalities that describe various relationships.									I	I/R/M	I/R/M	I/R/M	
3) solve and interpret equations and inequalities that describe various relationships.													

4) create new functions from existing functions by performing various operations										I		I/R/M	
5) create and use quadratic and exponential functions to model and solve real world problems.										I		I/R/M	
6) summarize, represent and interpret data to make inferences and justify conclusions.										I/R/M		I/R/M	
Geometry	K	1	2	3	4	5	6	7	8	9	10	11	12
1) understand and experiment with congruence and similarity transformations.													
2) use relationships between two- and three-dimensional objects to solve problems.													
3) apply theorems and formulas related to circles to solve problems.													
4) define trigonometric ratios and solve problems involving right triangles.													
5) prove geometric theorems algebraically and logically.													
6) understand independence and conditional probability and use them to interpret data.													
Statistics	K	1	2	3	4	5	6	7	8	9	10	11	12
1. Calculate the probability of events									I		R		M

2. Calculate and interpret summary statistics of univariate and bivariate data sets										I		R	R/M
3. Appropriately collect data and analyze the data collection methods of published works													I/R/M
4. Create and interpret data displays										R		I/R	I/R/M
5. Recognize patterns and use equations to determine future values													
6. Draw conclusions and inferences from probability and summary statistics										I		I/R/M	I/R/M
Statistics AP/DC	K	1	2	3	4	5	6	7	8	9	10	11	12
1. Describe the center, spread, shape, and irregularities of a data set										I/R		I/R/M	I/R/M
2. Determine appropriate methods for data collection										I/R		I/R/M	I/R/M
3. Design statistical experiments										I		I/R	I/R/M
4. Appropriately display data graphically										R		I/R	I/R/M
5. Determine the relationship between data sets										I		I/R	I/R/M
6. Calculate the probability of an event										R		R/M	I/R/M
7. Describe the sampling distribution										R		R/M	I/R/M
8. Estimate and draw inferences for proportions and means										I		I	I/R/M
9. Design, execute, and draw conclusions from hypothesis tests													I/R/M

Math Curriculum

College Algebra DC (year long)	K	1	2	3	4	5	6	7	8	9	10	11	12
1. Solve equations and inequalities with a single variable													
2. Graph functions given its equation by considering its domain and using transformations													
3. Solve and graph polynomial equations with degree of three or larger													
4. Graph rational functions and determine the corresponding domain and range													
5. Determine the inverse function of an invertible function													
6. Evaluate and graph logarithmic and exponential functions													
7. Model exponential and logarithmic functions appropriately													
8. Solve systems of linear equations with two or three variables													
9. Use linear inequalities for linear programming													
College Algebra DC (semester)	K	1	2	3	4	5	6	7	8	9	10	11	12
1. Solve equations and inequalities with a single variable													
2. Graph functions given its equation by considering its domain and using transformations													

3. Solve and graph polynomial equations with degree of three or larger													
4. Graph rational functions and determine the corresponding domain and range													
5. Determine the inverse function of an invertible function													
6. Evaluate and graph logarithmic and exponential functions													
7. Model exponential and logarithmic functions appropriately													
8. Solve systems of linear equations with two or three variables													
9. Use linear inequalities for linear programming													
Trigonometry DC	K	1	2	3	4	5	6	7	8	9	10	11	12
1. Find the measure of an angle in radians and degrees													
2. Apply the trigonometric functions to right triangle applications													
3. Calculate trigonometric function values given a point on circle, with any radius													
4. Graph trigonometric functions and determine amplitude, phase shift, and period													
5. Prove trigonometric identities													
6. Solve trigonometric equations													

7. Solve triangles including the ambiguous case													
8. Determine approximate trigonometric function values for angles in degrees and radians using appropriate technology													
Calculus AP/DC	K	1	2	3	4	5	6	7	8	9	10	11	12
1. Evaluate limits of algebraic, trigonometric, logarithmic, and exponential functions													
2. Determine continuity of function of a single real variable													
3. Differentiate algebraic, trigonometric, logarithmic, exponential, composite, and inverse functions													
4. Explain the geometric significance of the derivative of a function													
5. Analyze graphs of functions and solve extrema problems using derivatives													
6. Calculate higher order derivatives and calculate derivatives implicitly													
7. Apply methods of antidifferentiation													
8. Evaluate definite integrals using limits and antiderivatives													
9. Apply integration to work, area, volume, centroids, arc lengths, and differential equations													

10. Use differentials for approximation of functions when appropriate													
AP Computer Science	K	1	2	3	4	5	6	7	8	9	10	11	12

I – Introduce *R – Reinforce* *M – Mastery* *o – Optional for grade level*

Math Curriculum

KG Year At-A-Glance:

Quarter 1	Quarter 2
• I can count to 100 by ones to 12 • I can name numerals 0-20 to 10 • I can count and name how many objects are in a group 0-20 to 10 • I can count and write how many objects are in a group 0-20 to 5 • I can choose which set of objects is equal, more, or less	• I can count to 100 by ones to 21 • I can name numerals 0-20 to 20 • I can count and name how many objects are in a group 0-20 • I can count and write how many objects are in a group 0-20 to 10 • I can choose which set of objects is equal, more, or less • I can choose which numeral is equal, more, or less
Quarter 3	**Quarter 4**
• I can count to 100 by ones to 51 • I can count to 100 by tens • I can name numerals 0-20 to 20 • I can count and name how many objects are in a group 0-20 • I can count and write how many objects are in a group 0-20 • I can choose which set of objects is equal, more, or less • I can choose which numeral is equal, more, or less • I can add within 10 • I can subtract within 10	• I can count to 100 by ones to 100 • I can count to 100 by tens • I can name numerals 0-20 to 20 • I can count and name how many objects are in a group 0-20 • I can count and write how many objects are in a group 0-20 • I can choose which set of objects is equal, more, or less • I can choose which numeral is equal, more, or less • I can add within 10 • I can subtract within 10

KG:			Last Revised (Date & Name):	
Priority Standards: (Based on Missouri Learning Standards / CLEs / GLEs)	Prerequisite Standards:	Learning Target:	Assessment Methods:	Instructional Activities & Assignments

K.NS.A.1		• Rote Count to 100 by 1's and 10's	CFA-Parent Copy Created 2018-19 G.CM.1-I can count to 100 by ones GC.M.2-I can count to 100 by tens	• As a whole group students will count to 100 with help. • Students will sit in a circle and as a group each student will count on to 100 based on the number the other student said. • Students count to 100 with teacher. • Counting and making groups of multiple groups of 10 . • High ten touch game: Count by 10 for every touch.

K.NS.B.5 K.NS.B.6 K.NS.B.7 K.NS.B.9		• Count to tell the number of objects 0-20	CFA-Parent Copy Created 2018-19 G.CM.3-I can name numerals 0-20 G.CM.4-I can count & name how many objects are in a group 0-20	• Roll 2 or 3 dice and have students count and show the number with objects • Students will pick a number from a bag of cards and show the number with counters • Teacher will say a number and students will write and show the number in objects • Flashcards • Number memory • Putting numbers in order and reciting • Number bingo
K.NS.A.4		• Read and write numerals and represent a number of objects from 0 to 20.	CFA-Parent Copy Created 2018-19 G.CM.3-I can name numerals 0-20 G.CM.4-I can count & name how many objects are in a group 0-20 G.CM.5-I can count and write how many objects are in a group 0-20	• Counting objects on a worksheet and writing the corresponding number • Counting manipulatives • Counting manipulatives and writing the number

K.NS.C.10 K.NS.C.11		• Compare sets of objects and numerals 0-10	CFA-Parent Copy Created 2018-19 Copy of GC.M.6-I can choose which set of objects is equal, more, or less G.CM.7-I can choose which numeral is equal, more, or less	• Use candy, crackers, goldfish, etc have students determine which group has more, less or the same amount. Also, say a number and have students make a group that is more, less, or equal to given number. • Have students vote on their favorite thing (food, toy, apples types etc). Discuss which group has more, less or if any groups are equal. • Do Molly's More or Less Quest on ABCYA.com • Students will play "WAR" with cards to determine who has the greater number. Vary the game by seeing who has the number that represents "less". Teach/Review the term EQUAL by demonstrating what to do when matching cards are turned. In the beginning, use number cards 1-9, but eventually

				move to numbers in the teens.
K.RA.A.1		• Solve and understand addition and subtraction problems within 10.	CFA-Parent Copy Created 2018-19 G.CM.9-I can subtract within 10 G.CM.8-I can add within 10	• Students will use two different color unifix cubes to create 10 (6 green and 4 blue). Teacher will model different ways to make 10. • Students will use hands to create ways to make 10. Ex. 4 fingers and 1 finger make 5 Frogs on a log • Ten Frame with counters, unifix cubes • Domino Subtraction

Math Curriculum

1st Grade Year At-A-Glance:

Quarter 1	Quarter 2
• I can demonstrate an understanding of number patterns such as skip counting or number sequences. • I can add within 20, demonstrating fluency for addition to 10.	• I can add within 20, demonstrating fluency within 10. • I can count to 120, starting at any number less than 120. • I can order three objects by length.
Quarter 3	**Quarter 4**
• I can understand that the two digits of a two-digit number represent amounts of tens and ones. • I can compose two-dimensional shapes to create a composite shape, and compose new shapes from the composite shape and distinguish between defining attributes. • I can partition circles and rectangles into two and four equal shares understanding fourths, quarters, etc. • I can compare two-digit numbers based on the meaning of the tens and ones digits using <,>, and =. • I can organize, represent, and interpret data with up to 3 categories. • I can tell time to the nearest hour and half-hour using analog and digital clocks.	• I can identify coins and their values.

1st Grade:			Last Revised (Date & Name):	
Priority Standards: (Based on Missouri Learning Standards / CLEs / GLEs)	Prerequisite Standards:	Learning Targets:	Assessment Methods:	Instructional Activities & Assignments

Math Curriculum

Number Sense A:	Count to 100 by ones and tens. Count forward beginning from a given number between 1 and 20. Count backward from a given number between 10 and 1. Read and write numerals and represent a number of objects from 0 to 20.	• Counting on from any given number up to 120	Math Priority Standard 1 Eureka math	Make a folder to 120 and beyond whenever they have free time. Introduce skip counting on a numberline and a hundreds chart. • Play skip counting songs during transitions. • Play a game where students sit in a circle and count by 2's, 5's, or 10's. • Each player says the next number and if they get the number wrong, they are out of the circle. Also the person that says 100 or 50 or whatever number you choose is automatically knocked-out. • Can count to 120 during calendar time. • Have students write in their "Number's Club" or number

Relationships and Algebraic Thinking c: Add and subtract within 20.	Demonstrate fluency for addition and subtraction within 5. Represent addition and subtraction within 10. Decompose numbers less than or equal to 10 in more than one way. Make 10 for any number from 1 to 9.	• Add and subtract within 20, showing fluency within 10	Math Priority Standard 1	Add and subtract within 20. Demonstrate fluency with addition and subtraction within 10. 1 Use manipulatives, ten frames, and number bonds to introduce how to add numbers to 20. • Play dice and card games to build fluency with addition within 10. • Assign computer games to build addition skills. Enrichment: Teach students to add multiples of 10 or to use mental math strategies to add beyond 20.

Math Curriculum

Number Sense and Operations in Base Ten A: Understand place value of two-digit numbers.	Compose and decompose numbers from 11 to 19 into sets of tens with additional ones.	• Understand that the two digits of a two-digit number represent amounts of tens and ones. • Compare two two-digit numbers based on the meaning of the tens and ones digits, recording the results of comparisons with the symbols >, =, and <	Math Priority Standard 1 Eureka math series	Understand that 10 can be thought of as a bundle of 10 ones – called a "ten". Understand two-digit numbers are composed of ten(s) and one(s). Compare two two-digit numbers using the symbols >, = or <. Count by 10s to 120 starting at any number. • Teach the students the alligator idea to remember how to use the greater than, less than symbols. • Play games on ABCYa! To compare numbers. • Have students play war with playing cards or dominos to compare numbers.Use base 10 blocks to have students build and show 2 digit numbers on mats. • Show Brainpop Jr. videos on place value. • Use styrofoam cups to help students see the value of tens and ones. Place the numbers 1-9 on the lip of one cup and the numbers 10,20,...90 on the lip of the other. When you place the two cups together the Zeros on the tens cup should be hidden to show a 2 digit number.

1.OA5		• Skip counting-- Relate counting to addition and subtraction (e.g., by counting on 2 to add 2)	Math Priority Standard 1 Eureka Math	
1.GMA		• Compose 2 dimensional and 3 dimensional shapes to create composite shapes and distinguish between the defining attributes. Partition circles and rectangles into 2 and 4 equal shares using the words halves, fourths, and quarters and understand the decomposing into more equal shares creates smaller shares.	Math Priority Standard1 Eureka Math	• Have students make a shape monster using various 2 dimensional shapes and then they have to graph and label the shapes they used to create their monster. • Have students use 2 dimensional and 3 dimensional shapes to create a shape town. • Have students use gum drops or marshmallows and toothpicks to create 3D models of the 3 dimensional shapes • .Do a fraction scavenger hunt around the room or scoot game. • Have students use a pizza game or pictures of pizza to represent fractions of a circle. • Use a paper circle or a tortilla to have students partition circle

1.GMC		• Tell and write time to the nearest hour and half-hour using analog and digital clocks. • Identify coins and their values.	Priority Math Standards Eureka Math Series	• Use Judy clocks to have students play musical desks to stop at a desk with a clock to show a time that the teacher calls out. • Have students make clocks out of paper plates. • Play a game of I have-Who has to practice time. • Abcya Time Travel • Use unifix cubes to show 1, 5, 10, & 25. Put the coins with each set of blocks to show the value of the coin. • Give students plastic coins and ask them to buy things such as pencils, little erasers, or rent things like their desks or chairs. They have to be able to find and give you the right coin for each item. • Play and sing Youtube songs for each coin and their value.

Math Curriculum

2nd Grade Year At-A-Glance:

Quarter 1	Quarter 2
• I can skip count by 5's and 10's • I can compute addition facts to 20. • I can compute subtraction facts to 20. • I can apply number sense and place value of three digit numbers.	• I can subtract two and three digit numbers with regrouping. • I can identify correct operation and solve story problems.
Quarter 3	**Quarter 4**
• I can read, interpret, and construct charts and graphs.	• I can find the value of a combination of bills and coins. • I can solve multiplication problems with the use of repeated addition.

2nd Grade:			Last Revised (Date & Name):	
Priority Standards: (Based on Missouri Learning Standards / CLEs / GLEs)	Prerequisite Standards:	Learning Target:	Assessment Methods:	Instructional Activities & Assignments

2.NBT.B.6, 2.NBT.B.7, Adding/Subtraction with regrouping.		• 2-3 digit addition/subtraction	I can add and subtract two and three digit numbers.	• Learning Activities (Formative Assessments) Use paddles to model/demonstrate understanding. Base ten block manipulatives online/interactive manipulatives Paper/pencil tasks as assigned by the teacher. • Ideas for a Hook? Introduce with an engaging anchor chart that is colorful and catchy...poem or something like that. Increase engagement by allowing kids to build their own numbers with dominoes or cards or something like that. Allow hands on whenever possible.
2.NBT.A, 2.NBT.A.2.1, Place Value		• Place value to 1,000/10 more/less; 100 more/less, expanded form, word form, standard form	place value	• Learning Activities (Formative Assessments) Place Value War Roll and Make (biggest/smallest number) Paper/pencil tasks as assigned by the teacher. • Ideas for a Hook? BrainPopJr. Video 1's, 10's, 100's Video Book: How Much is a

				Million

2.GM.D.10, 2.GM.D.11, Money		• counting/making change to/from $1.00.	I can find the value of combinations of bills and coins	• Learning Activities (Formative Assessments) Money bingo Game-making $1 Using coins, (manipulatives) to practice counting/making change Online $ games- Sheppard software • Ideas for a Hook?- Books-Pigs Will Be Pigs by Amy Axelrod Alexander, Who Used to Be Rich Last Sunday by Judith Viorst
2.DS.A.4, Solve word problems.		• Addition/subtraction Key words, bar modeling, comparing sets	I can identify correct operation(s) and solve story problems	• Manipulatives as representation. Cooperative Learning (Rally Coach- Kagan Strategy) Whiteboards Bar Modeling • Ideas for a Hook? Real World Connections. Make it relevant!

2.DS.A.1, 2.DS.A.2, Reading and interpreting charts/graphs.		• Bar, line, picto, pie	I can read and construct line, picto and bar graphs	• Place Value War • Roll and Make (biggest/smallest number) • Paper/pencil tasks as assigned by the teacher. • Ideas for a Hook? • BrainPopJr. Video • 1's, 10's, 100's Video • Book: How Much is a Million

Math Curriculum

3rd Grade Year At-A-Glance:

Quarter 1	Quarter 2
• Module 1: • Use the four operations to solve word problems. • Read, write and identify whole numbers within 100,000 using base ten numerals, number names and expanded form. • Demonstrate fluency with addition and subtraction within 1000. • Use the four operations to solve word problems. • Module 2: • Use place value understanding and properties of operations to perform multi-digit arithmetic. • Read, write and identify whole numbers within 100,000 using base ten numerals, number names and expanded form.	• Module 2: (Cont.) • Module 3: • Use multiplication and division within 100 to solve problems. • Use the four operations to solve word problems. • Module 4: • Use multiplication and division within 100 to solve problems.
Quarter 3	**Quarter 4**
• Module 4: (cont.) • Use multiplication and division within 100 to solve problems. • Module 5: • Understand a unit fraction as the quantity formed by one part when a whole is partitioned into equal parts. • Use the four operations to solve word problems. • Module 7: • Reason with shapes and their attributes.	• Module 7: (Cont.) • Reason with shapes and their attributes. • Represent and analyze data. • Use the four operations to solve word problems. • Module 6: • Represent and analyze data. • Use the four operations to solve word problems.

3rd Grade:

Last Revised (Date & Name):
Pam Nelson 1/23/19

Math Curriculum

Priority Standards: (Based on Missouri Learning Standards / CLEs / GLEs)	Prerequisite Standards:	Learning Target:	Assessment Methods:	Instructional Activities & Assignments
The student will use place value understanding and properties of operations to perform multi-digit arithmetic.		• I can use number sense and place value to help me understand math.	See document	• See document
The student will read, write and identify whole numbers within 100,000 using base ten numerals, number names and expanded form.		• I can use number sense and place value to help me understand math.	See document	• See document
The student will demonstrate fluency with addition and subtraction within 1000.		• I can use addition and subtraction to help me understand math (computation).	See Document (addition) See Document (subtraction)	• See Document (addition) • See Document (subtraction)
The student will use multiplication and division within 100 to solve problems.		• I can use multiplication and division to help me understand math (computation).	See document (multiplication) See document (division)	• See document (multiplication) • See document (division)
The student will understand a unit fraction as the quantity formed by one part when a whole is partitioned into equal parts.		• I can use fractions to help me understand math.	See document	• See document
The student will use the four operations to solve word problems.		• I can use addition, subtraction, multiplication, and division to help me understand math (solving real world word problems).	See Document (addition) See Document (subtraction) See document (multiplication) See document (division)	• See Document (addition) • See Document (subtraction) • See document (multiplication) • See document (division)

The student will reason with shapes and their attributes.		• I can use geometry to help me understand math.	See document	• See document
The student will represent and analyze data.		• I can use measurement and data to help me understand math.	See document	• See document

Math Curriculum

4th Grade Year At-A-Glance:

Quarter 1	Quarter 2
• Module 1 - Module 1: Place Value, Comparing, Rounding, Addition, Subtraction, and Addition/Subtraction Word Problems	• Module 3 - Multiplication and Division
Quarter 3	**Quarter 4**
• Module 5: Fraction Equivalence, Ordering, and Operations and Module 6: Decimal Fractions	• Module 2 - Unit Conversions and Problem Solving with Measurement • Module 4 - Angle Measure and Plane Figures • Module 7 - Exploring Measurement with Multiplication

4th Grade:			Last Revised (Date & Name): Britney Murphy/Alexandria Wilmes 5/15/2019	
Priority Standards: (Based on Missouri Learning Standards / CLEs / GLEs)	Prerequisite Standards:	Learning Target:	Assessment Methods:	Instructional Activities & Assignments

Math Curriculum

OA5, NBT1, NBT2,	Use place value understanding and properties of operations to perform multi-digit arithmetic. Read, write and identify whole numbers within 100,000 using base ten numerals, number names and expanded form.	• Interpret place value concepts to 1,000,000 • This means I can.... interpret place value concepts to 1,000,000. • "This means I can....use mathematical operations and variables to write and solve word problems. • "This means I can.... I can understand measurement taught at my grade level.	Eureka Module 1 TEST - Place Value, Comparing, Rounding PLACE VALUE ROUNDING	• See Document • Module 1 Resources • Eureka interactive notebook • Numbers and Operations • Place Value Chips Manipulatives • Whiteboards
NBT4	Demonstrate fluency with addition and subtraction within 1000. Use the four operations to solve word problems.	• Add and Subtract numbers to 1,000,000 • • "This means I can....add and subtract numbers to 1,000,000	Eureka Module 1: Rounding, Addition, Subtraction, and Addition/Subtraction Word Problems Addition/Subtraction	• See Document • Module 1 Resources • Numbers and Operations • Whiteboards
NBT5, NBT6	Use multiplication and division within 100 to solve problems. Use the four operations to solve word problems.	• Multiply and Divide large numbers using a variety of strategies • "This means I can.... Multiply and divide large numbers using a variety of strategies.	Eureka Module 3: Multiplication & Division Multiplication with Word Problems (Factors/Multiples) Division with Word Problems	• See Document • Numbers and Operations • Multiplication Properties Sort

NF1-7, MD4	Understand a unit fraction as the quantity formed by one part when a whole is partitioned into equal parts.	• Understand fractions taught at my grade level; simplify, mixed numbers to improper fractions and add and subtract with unlike denominators. • "This means I can.... understand fractions taught at my grade level.	Eureka Module 5: Fraction Equivalence, Ordering, and Operations and Module 6: Decimal Fractions Fractions:Equivalent, Simplifying, Comparing, Decomposing, and Ordering Fractions:Mixed-Improper, Improper-Mixed, Adding and Subtracting Fractions Fractions:Adding and Subtracting Mixed Numbers, Multiplying Decimals	• See Document • Interactive Notebook 4th Grade Fractions Teachers Pay Teachers • Interactive Notebook 4th Grade Fractions CC Teachers Pay Teachers • 4NF Fractions Teachers Pay Teachers
4.G.A1-3, 4.MD.A.1-7	Reason with shapes and their attributes. Represent and analyze data.	• Understand geometry terms and concepts taught at my grade level. • Understand measurement taught at my grade level.	-Eureka Module 4 & 7: Shape Attributes, Angles, Symmetry, Area & Perimeter, and Measurement Conversions	• See Document • See Document • Capture the Board (Area) • 4.MD Measurement and Data Teachers Pay Teachers

Math Curriculum

5th Grade Year At-A-Glance:

Quarter 1	Quarter 2
• Module 1: Place Value and Decimal Fractions (20 days) • Module 2: Multi-digit and whole number and decimal fraction operations (35 days total)	• Module 2: Multi-digit and whole number and decimal fraction operations (35 days total) • Module 3: Addition and Subtraction of Fractions (20 days)
Quarter 3	**Quarter 4**
• Module 4: Multiplication and Division of Fractions and Decimal Fractions (35 days) • Module 5: Addition and Multiplication with Volume and Area (21 total days)	• Module 5: Addition and Multiplication with Volume and Area (21 total days) • Module 6: Problem Solving with the Coordinate Plane (30 days)

5th Grade:			Last Revised (Date & Name): 09 December 2018, Kim Melching and LuAnna Ortiz	
Priority Standards: (Based on Missouri Learning Standards / CLEs / GLEs)	Prerequisite Standards:	Learning Target:	Assessment Methods:	Instructional Activities & Assignments

NBT A	4th Grade - NBT.A.2: Read, write and identify multi-digit whole numbers up to one million using number names, base ten numerals and expanded form. 4th Grade - NBT.A.5: Read, write and identify multi-digit whole numbers up to one million using number names, base ten numerals and expanded form. 4th Grade - NBT.A.6: Multiply a whole number of up to four digits by a one-digit whole number and multiply two two-digit numbers, and justify the solution. 4th Grade - NBT.A.7: Find whole-number quotients and remainders with up to four-digit dividends and one-digit divisors, and justify the solution.	• Use place value system understanding to perform operations with multi-digit whole numbers to billions and decimals to thousandths.	Eureka Math, Modules 1, 2, 3, and 4, End of Module Assessments	• Eureka Math, Modules 1, 2, 3, 4

NF A/B	4th Grade - NF.A.2: Recognize and generate equivalent fractions. 4th Grade - NF.B.1: Understand addition and subtraction of fractions as joining/composing and separating/decomposing parts referring to the same whole. 4th Grade - NF.B.2: Decompose a fraction into a sum of fractions with the same denominator and record each decomposition with an equation and justification. 4th Grade - NF.B.3: Solve problems involving adding and subtracting fractions and mixed numbers with like denominators. 4th Grade - NF.B.4: Apply and extend previous understandings of multiplication to multiply a fraction by a whole number. 4th Grade - NF.B.5: Solve problems involving multiplication of a fraction by a whole number. 4th Grade - NF.C.2: Understand that fractions and decimals are equivalent representations of the same quantity.	• Understand the relationship, perform operations, and solve problems with fractions and decimals.	Eureka Math, Modules 1, 2, 3, and 4, End of Module Assessments	• Eureka Math, Modules 1, 2, 3, 4
GM A	4th Grade - GM.A.2: Classify two-dimensional shapes by their sides and/or angles. 2nd Grade - GM.A.1: Recognize and draw shapes having specified attributes, such as a given number of angles or sides. a. Identify triangles, quadrilaterals, pentagons, hexagons, circles and cubes. Identify the faces of three-dimensional objects.	• Classify two- and three-dimensional geometric shapes.	Eureka Math, Module 5, End of Module Assessment	• Eureka Math, Module 5

GM B	3rd grade - GM.B.4: Measure or estimate length, liquid volume and weight of objects. 3rd grade - GM.B.5: Use the four operations to solve problems involving lengths, liquid volumes or weights given in the same units. 4th Grade - GM.C.2: Use the four operations to solve problems involving distances, intervals of time, liquid volume, weight of objects and money.	• Understand and compute volume.	Eureka Math, Module 5, End of Module Assessment	• Eureka Math, Module 5
GM C	N/A	• Graph points on the Cartesian coordinate plane within the first quadrant to solve problems.	Eureka Math, Module 6, End of Module Assessment	• Eureka Math, Module 6
GM D	4th grade - GM.C.1: Know the relative sizes of measurement units within one system of units. Convert measurements in a larger unit in terms of a smaller unit.	• Solve problems involving measurement and conversions within a measurement system.	Eureka Math, Modules 1, 2, 3, and 4, End of Module Assessments	• Eureka Math, Modules 1, 2, 3, 4

Math Curriculum

6th Grade Year At-A-Glance:

Quarter 1	Quarter 2
• Routines/Inspirational Math (7 days) • Unit 1: Area and Surface Area (21-22 days) • Unit 2: Introducing Ratios (19 days)	• Unit 3: Unit Rates and Percentages (18-19 days) • Unit 4: Dividing Fractions (20 days)
Quarter 3	**Quarter 4**
• Unit 5: Arithmetic in Base Ten (16-18 days) • Unit 6: Expressions and Equations (18-20 days)	• Unit 7: Rational Numbers (20 days) • Unit 8: Data Sets and Distributions (21 days)

6th Grade:			Last Revised (Date & Name):	
Priority Standards: (Based on Missouri Learning Standards / CLEs / GLEs)	Prerequisite Standards:	Learning Target:	Assessment Methods:	Instructional Activities & Assignments

6. RP.A Understand and use ratios to solve problems.	Prerequisite Standards	• I can understand and represent a ratio as a comparison of two quantities. • I can understand and describe the meaning of a unit rate. • I can solve problems involving ratios and rates.	Unit 2: Introducing Ratios Pre-Unit Diagnostic Unit 2: Introducing Ratios End of Unit Assessment Unit 3: Unit Rates and Percentages Pre-Unit Diagnostic Unit 3: Unit Rates and Percentages: End of Unit Assessment	• Ratios practice problems • Unit Rates practice problems
6.NS.A Apply and extend previous understandings of multiplication and division to divide fractions by fractions	Prerequisite Standards	• I can solve problems involving division of fractions by fractions.	Unit 4: Dividing Fractions Pre-Unit Diagnostic Unit 4: Dividing Fractions Mid-Unit Assessment Unit 4: Dividing Fractions End of Unit Assessment	• Dividing Fractions practice problems
6.NS.B Compute with non-negative multi-digit numbers and find common factors and multiples	Prerequisite Standards	• I can fluently divide multi-digit whole numbers. • I can fluently add, subtract, multiply, and divide decimals. • I can find common factors and multiples.	Unit 5: Arithmetic in Base 10 Pre-Unit Diagnostic Unit 5: Arithmetic in Base 10 Mid-Unit Assessment Unit 5: Arithmetic in Base 10 End of Unit Assessment	• Multi-digit numbers practice problems • Common Factors/Multiples practice problems

6.NS.C Apply and extend previous understandings of numbers to the system of rational numbers	Prerequisite Standards	• I can use positive and negative numbers to represent quantities. • I can locate a rational number as a point on the number line • I understand that the absolute value of a rational number is its distance from zero • I can extend prior knowledge to generate equivalent representations of rational numbers between fractions, decimals and percentages (limited to terminating decimals and/or benchmark fractions of ⅓ and ⅔).	Unit 7: Rational Numbers Pre-Unit Diagnostic: Unit 7: Rational Numbers End of Unit Assessment	• Rational Numbers practice problems
6.EEI.A Apply and extend previous understandings of arithmetic to algebraic expressions	Prerequisite Standards	• I can describe the difference between an expression and an equation. • I can create and evaluate expressions involving variables and whole number exponents. • I can identify and generate equivalent algebraic expressions using mathematical properties.	Unit 6: Expressions and Equations Pre-Unit Diagnostic Unit 6: Expressions and Equations End of Unit Assessment	• Expressions and Equations practice problems

6.EEI.B Reason about and solve one-variable equations and inequalities	Prerequisite Standards	• I can use substitution to determine whether a given number in a specified set makes a one-variable equation or inequality true. • I can understand that if any solutions exist, the solution set for an equation or inequality consists of values that make the equation or inequality true. • I can write and solve equations using variables to represent quantities, and understand the meaning of the variable in the context of the situation. • I can solve one-step linear equations in one variable involving non-negative rational numbers. • I can recognize that inequalities may have infinitely many solutions.	Unit 6: Expressions and Equations Pre-Unit Diagnostic: Unit 6: Expressions and Equations End of Unit Assessment	• Expressions and Equations practice problems • Inequalities practice problems
6.EEI.C Represent and analyze quantitative relationships between dependent and independent variables	Prerequisite Standards	• I can identify and describe the relationships between two variables that change in relationship to one another.	Unit 6: Expressions and Equations Pre-Unit Diagnostic: Unit 6: Expressions and Equations End of Unit Assessment	• Relationships between variables practice problems

6.GM.A Solve problems involving area, surface area, and volume	Prerequisite Standards	• I can find the area of polygons by composing or decomposing the shapes into rectangles or triangles. • I can find the volume of right rectangular prisms. • I can solve problems by graphing points in all four quadrants of the Cartesian coordinate plane. • I can solve problems using nets.	Unit 1: Area and Surface Area: Pre-Unit Diagnostic Unit 1: Area and Surface Area: Mid-Unit Unit 1: Area and Surface Area: End of Unit	• Area/Surface Area/Nets practice problems • Volume practice problems • Coordinate Plane practice problems
6.DSP.A Develop understanding of statistical variability	Prerequisite Standards	• I can recognize a statistical question as one that anticipates variability in the data related to the question and accounts for it in the answers. • I can understand that a set of data collected to answer a statistical question has a distribution which can be described by its center, spread and overall shape. • I can recognize that a measure of center for a numerical data set summarizes all of its values with a single number, while a measure of variation describes how its values vary from a single number	Unit 8: Data Sets and Distributions Pre-Unit Diagnostic: Unit 8: Data Sets and Distributions Mid-Unit Assessment Unit 8: Data Sets and Distributions End of Unit Assessment	• Statistical variability practice problems

6.DSP.B Summarize and describe distribution	Prerequisite Standards	• I can display and interpret data • I can summarize numerical data sets in relation to the context.	Unit 8: Data Sets and Distributions Pre-Unit Diagnostic Unit 8: Data Sets and Distributions Mid-Unit Assessment Unit 8: Data Sets and Distributions End of Unit Assessment	• Summarize and describe distribution practice problems

Math Curriculum

7th Grade Year At-A-Glance:

Quarter 1	Quarter 2
• Unit 1: Scale Drawings (3 weeks) • Unit 2: Introducing Proportional Relationships (4 weeks)	• Unit 3: Measuring Circles (3 weeks) • Unit 4: Proportional Relationships and Percentages (4 weeks)
Quarter 3	**Quarter 4**
• Unit 5: Rational Number Arithmetic (4 weeks) • Unit 6: Expressions, Equations, and Inequalities (5 weeks)	• Unit 7: Angles, Triangles, and Prisms (4 weeks) • Unit 8: Probability and Sampling (5 weeks)

7th Grade:			Last Revised (Date & Name): 1/7/19 Bethany Johnston	
Priority Standards: (Based on Missouri Learning Standards / CLEs / GLEs)	Prerequisite Standards:	Learning Target:	Assessment Methods:	Instructional Activities & Assignments

Math Curriculum

7.RP.A, Ratios & Proportional Relationships, Analyze proportional relationships and use them to solve problems.	Prerequisite standards for grade 7 See the link from OpenUp for each unit highlighting the prerequisite concepts and standards addressed in previous grade levels.	• Unit 2: Introducing Proportional Relationships I can statements • Unit 4: Proportional Relationships and Percentages I can statements	Unit 2 Pre-Assessment Unit 2 Post-Assessment Unit 2 Proficiency Scales Unit 4 Pre-Assessment Unit 4 Post-Assessment Unit 4 Proficiency Scales	• Unit 2 Practice Problems • Unit 4 Practice Problems
7.NS.A, Number Sense & Operations, Apply and extend previous understandings of operations to add, subtract, multiply and divide rational numbers.		• Unit 5: Rational Number Arithmetic I can statements	Unit 5 Pre-Assessment Unit 5 Post-Assessment Unit 5 Proficiency Scales	• Unit 5 Practice Problems
7.EEI.A, Expressions, Equations & Inequalities, Use properties of operations to generate equivalent expressions.		• Unit 6: Expressions, Equations, and Inequalities I can statements	Unit 6: Expressions, Equations, and Inequalities Assessments Unit 6 Pre-Assessment Unit 6 Mid-Unit Assessment Unit 6 Post-Assessment Unit 6 Proficiency Scales	• Unit 6 Practice Problems
7.EEI.B, Expressions, Equations & Inequalities, Solve problems using numerical and algebraic expressions and equations.		• Unit 6: Expressions, Equations, and Inequalities I can statements	Unit 6 Pre-Assessment Unit 6 Mid-Unit Assessment Unit 6 Post-Assessment Unit 6 Proficiency Scales	• Unit 6 Practice Problems
7.GM.A, Geometry & Measurement, Draw and describe geometrical figures and describe the relationships between them.		• Unit 1: Scale Drawings I can statements	Unit 1 Pre-Assessment Unit 1 Post-Assessment Unit 1 Proficiency Scales	• Unit 1 Practice Problems

7.GM.B, Geometry & Measurement, Apply and extend previous understandings of angle measure, area and volume.		• Unit 3: Measuring Circles I can statements • Unit 7: Angles, Triangles, Prisms I can statements	Unit 3 Pre-Assessment Unit 3 Post-Assessment Unit 3 Proficiency Scales Unit 7 Pre-Assessment Unit 7 Post-Assessment Unit 7 Proficiency Scales	• Unit 3 Practice Problems • Unit 7 Practice Problems
7.DSP.A, Data, Statistics & Probability, Use random sampling to draw inferences about a population.		• Unit 8: Probability and Sampling I can statements	Unit 8 Pre-Assessment Unit 8 Post-Assessment Unit 8 Proficiency Scales	• Unit 8 Practice Problems
7.DSP.B, Data, Statistics & Probability, Draw informal comparative inferences about two populations.		• Unit 8: Probability and Sampling I can statements	Unit 8 Pre-Assessment Unit 8 Post-Assessment Unit 8 Proficiency Scales	• Unit 8 Practice Problems
7.DSP.C, Data, Statistics & Probability, Develop, use and evaluate probability models.		• Unit 8: Probability and Sampling I can statements	Unit 8 Pre-Assessment Unit 8 Post-Assessment Unit 8 Proficiency Scales	• Unit 8 Practice Problems

Math Curriculum

8th Grade Year At-A-Glance:

Quarter 1	Quarter 2
• Rigid Transformations and Congruence (4 weeks) • Dilations, Similarity, and Introducing Slope (3 weeks)	• Linear Relationships (4 weeks) • Linear Equations and Linear Systems (4 weeks)
Quarter 3	**Quarter 4**
• Functions and Volume (5 weeks) • Associations in Data (3 weeks)	• Exponents and Scientific Notation (4 weeks) • Pythagorean Theorem and Irrational Numbers (4 weeks)

8th Grade (Pre Algebra):			Last Revised (Date & Name): 1/2/19 Rebekkah Smale	
Priority Standards: (Based on Missouri Learning Standards / CLEs / GLEs)	Prerequisite Standards:	Priority Standards: (Based on Missouri Learning Standards / CLEs / GLEs)	Assessment Methods:	Instructional Activities & Assignments

Math Curriculum

NS.A Know that there are numbers that are not rational, and approximate them by rational numbers.	NS. A Apply and extend previous understandings of operations to add, subtract, multiply and divide rational numbers	• NS.A I can distinguish between rational and irrational numbers and estimate a number's value. • I can generate equivalent representations of rational numbers.	Open Up Resources: Exponents and Scientific Notation NS.A Proficiency Scale	• Estimating Square Roots lesson
EEI.A Work with radicals and integer exponents.	NS. A Apply and extend previous understandings of operations to add, subtract, multiply and divide rational numbers	• EEI.A I can apply the properties of integer exponents to generate equivalent numerical expressions. I can use scientific notation to solve real-world mathematical problems.	Open Up Resources: Exponents and Scientific Notation EEI.A Proficiency Scale	• Powers and Exponents lesson • Negative Exponent lesson and link to Properties of Exponents activity • Powers and Exponents jeopardy • Scientific Notation lesson
EEI.B Understand the connections between proportional relationships, lines and linear equations.	RP.A Analyze proportional relationships and use them to solve problems	• EEI.B I can graph proportional relationships. • I can apply concepts of slope and y-intercept to graphs, equations, and proportional relationships.	Open Up Resources: Dilations, Similarity, and Slope EEI.B Proficiency Scale	• Linear Equation jeopardy • Slope on a graph or from any two points lesson • Slope Stories activity
EEI.C Analyze and solve linear equations and inequalities and pairs of simultaneous linear equations.	EEI.A Use properties of operations to generate equivalent expressions. EEI.B Solve problems using numerical and algebraic expressions and equations.	• EEI.C I can solve linear equations and one variable. • I can solve systems of equations in two variables by using a variety of methods.	Open Up Resources: Linear Equations and Linear Systems EEI.C Proficiency Scale	• Solving Multi-step Equations lesson • Solving One-step Equations lesson • Solving Equations with Variables on Both Sides lesson • Systems of LInear Equations Card Sort activity
GM.A Understand congruence and similarity.	GM.A Draw and describe geometrical figures and describe the relationships between them.	• GM.A I can describe the effect of transformations on two-dimensional figures using coordinates. • I can establish informal arguments for problems of angle measure.	Open Up Resources: Rigid Transformations and Congruence GM.A Proficiency Scale	• Similar Figures lesson

GM.B Understand and apply the Pythagorean Theorem.	NS. A Apply and extend previous understandings of operations to add, subtract, multiply and divide rational numbers	• GM.B I can prove the Pythagorean Theorem and its converse. • I can apply the Pythagorean Theorem to find the distance between two points.	Open Up Resources: Pythagorean Theorem and Irrational Numbers GM.B Proficiency Scale	• Discovery of the Pythagorean Theorem lesson • Pythagorean Theorem Practice lesson
GM.C Solve problems involving volume of cones, pyramids and spheres.	GM.B Apply and extend previous understanding of angle measure, area and volume.	• GM.C I can find the surface area of pyramids. • I can find the volume of pyramids, cones, and spheres.	Open Up Resources: Functions and Volume GM.C Proficiency Scale	• Volume of Pyramids lesson • Volume of Cylinder, Cone and Sphere lesson
DSP.A Investigate patterns of association in bivariate data.	DSP.A Use random sampling to draw inferences about a population DSP.B Draw informal comparative inferences about two populations.	• DSP.A I can construct and interpret scatter plots to investigate patterns of association between two quantities. • I can construct and interpret a two-way table and use relative frequencies calculated for rows or columns to describe possible association between the two variables.	Open Up Resources: Associations in Data DSP.A Proficiency Scale	• Construct and Analyze Scatter Plot lesson • Estimating Age Scatter Plot activity • Scatter Plot Questions activity • Analyze Two-way Tables lesson
F.AB Define, evaluate and compare functions. Use functions to model relationships between quantities.	RP.A.3 Solve problems involving ratios, rates, percentages and proportional relationships.	• F.A I can compare functions represented in a different ways. • I can investigate the differences between linear and nonlinear functions. • F.B I can describe the functional relationship between two quantities from a graph.	Open Up Resources: Linear Relationships F.A Proficiency Scale F.B Proficiency Scale	• Comparing Functions lesson • Review Functions activity • Introduction to Functions lesson

Math Curriculum

Alg A Year At-A-Glance:

Quarter 1	Quarter 2
• Statistics • Solving One-Step Equations	• Solving Two-Step Equations • Solving Multi-Step Equations • Solving Simple and Compound Inequalities
Quarter 3	**Quarter 4**
• Identifying and Evaluating Functions • Graphing and Interpreting Lines	• Writing Equations of Lines • Solving Systems of Linear Equations (Graphically and Analytically)

Alg A:			Last Revised (Date & Name):	
Priority Standards: (Based on Missouri Learning Standards / CLEs / GLEs)	Prerequisite Standards:	Learning Target (click hyperlink):	Assessment Methods:	Instructional Activities & Assignments
Use units to solve problems., A1.NQ.B Use units to solve problems.		(encompasses all learning targets)		
Create equations that describe various relationships., A1.NQ.A Extend and use properties of rational exponents., A1.SSE.A Interpret and use structure., A1.CED.A Create equations that describe linear, quadratic, and exponential relationships., A1.BF.A.1 Build new functions	EEI.B Understand the connections between proportional relationships, lines and linear equations.	• Writing Linear Functions	Writing Equations of Lines	• Writing Equations of Lines

from existing functions (linear, quadratic, and exponential).				
Solve and interpret equations that describe various relationships., A1.REI.A Understand solving equations as a process, and solve equations and inequalities in one variable., A1.REI.B Solve systems of equations., A1.APR.A Perform operations on polynomials.	EEI.C I can solve linear equations and one variable.	• Solving One-step Equations • Solving Two-step Equations • Solving Multi-step Equations • Solving Simple and Compound Inequalities • Solving Systems of Linear Equations	Solving One-step Equations Solving Two-step Equations Solving Multi-step Equations Solving Simple Inequalities Solving Compound Inequalities Solving Systems of Linear Equations	• Solving One-Step Equations • Solving Two-step Equations • Solving Multi-step Equations • Solving Simple Inequalities • Solving Compound Inequalities • Solving Systems of Linear Equations
Analyze various functions using different representations., A1.REI.C Represent and solve linear and exponential equations and inequalities graphically., A1.IF.C Analyze linear, quadratic, and exponential functions using different representations., A1.LQE.A Construct and compare linear, quadratic, and exponential models and solve problems.	EEI.B I can graph proportional relationships.	• Identifying and Evaluating Functions • Graphing and interpreting lines	Identifying and Evaluating Functions Graphing and Interpreting Lines	• Identifying and Evaluating Functions • Graphing and Interpreting Lines
Understand and interpret the concept of a function and its notation in terms of the context., A1.IF.A Understand the concept of a function and use function notation., A1.IF.B Interpret linear, quadratic, and exponential functions in terms of the context., A1.LQE.B Use arithmetic and geometric sequences.	F.A I can compare functions represented in a different way. I can investigate the differences between linear and nonlinear functions. F.B I can describe the functional relationship between two quantities from a graph.	• Identifying and Evaluating Functions	Identifying and Evaluating Functions	• Identifying and Evaluating Functions
Summarize, represent, and interpret data., A1.DS.A Summarize, represent, and interpret data.	DSP.A I can construct and interpret scatter plots to investigate patterns of association between two quantities.	• Statistics	Statistics	• Statistics

Math Curriculum

Math Curriculum

Alg B Year At-A-Glance:

Quarter 1	Quarter 2
• Factoring • Solving Quadratics (factoring)	• Solving Quadratics (completing the square & quadratic formula) • Transformations of Quadratics
Quarter 3	**Quarter 4**
• Graphing Quadratics • Exponent Rules	• Exponential Growth and Decay • Graphing Inequalities

Alg B:			Last Revised (Date & Name):	
Priority Standards: (Based on Missouri Learning Standards / CLEs / GLEs)	Prerequisite Standards:	Learning Target (click hyperlink):	Assessment Methods:	Instructional Activities & Assignments

Use units to solve problems., A1.NQ.B Use units to solve problems.		• (encompasses all learning targets)		
Create equations that describe various relationships., A1.NQ.A Extend and use properties of rational exponents., A1.SSE.A Interpret and use structure., A1.CED.A Create equations that describe linear, quadratic, and exponential relationships., A1.BF.A.1 Build new functions from existing functions (linear, quadratic, and exponential).	EEI.A I can apply the properties of integer exponents to generate equivalent numerical expressions. GM.A I can describe the effect of transformations on two-dimensional figures using coordinates.	• Factoring • Transformations of Quadratics • Exponent Rules	Factoring (a = 1) Factoring (a >1) Transformations of Quadratics Exponent Rules	• Factoring (a = 1) • Factoring (a > 1) • Transformations of Quadratics • Exponent Rules
Solve and interpret equations that describe various relationships., A1.REI.A Understand solving equations as a process, and solve equations and inequalities in one variable., A1.REI.B Solve systems of equations., A1.APR.A Perform operations on polynomials.	EEI.C I can solve linear equations and one variable.	• Solving Quadratics (Factoring) • Solving Quadratics (Complete the Square/Quadratic Formula)	Solving Quadratics (Factoring) Solving Quadratics (Complete the Square/Quadratic Formula)	• Solving Quadratics (Factoring) • Solving Quadratics (Complete the Square/Quadratic Formula)

Math Curriculum

Analyze various functions using different representations., A1.REI.C Represent and solve linear and exponential equations and inequalities graphically., A1.IF.C Analyze linear, quadratic, and exponential functions using different representations., A1.LQE.A Construct and compare linear, quadratic, and exponential models and solve problems.	EEI.B I can graph proportional relationships.	• Graphing Quadratics • Graphing Inequalities • Exponential Growth/Decay • Solving Quadratics (Factoring) • Solving Quadratics (Complete the Square/Quadratic Formula)	Graphing Quadratics (Vertex Form) Graphing Quadratics (Standard Form) Graphing Inequalities Exponential Growth/Decay Solving Quadratics (Factoring) Solving Quadratics (Complete the Square/Quadratic Formula)	• Graphing Quadratics (Vertex Form) • Graphing Quadratics (Standard Form) • Graphing Inequalities • Exponential Growth/Decay • Solving Quadratics (Factoring) • Solving Quadratics (Complete the Square/Quadratic Formula)
Understand and interpret the concept of a function and its notation in terms of the context., A1.IF.A Understand the concept of a function and use function notation., A1.IF.B Interpret linear, quadratic, and exponential functions in terms of the context., A1.LQE.B Use arithmetic and geometric sequences.	F.A I can compare functions represented in a different way. I can investigate the differences between linear and nonlinear functions. F.B I can describe the functional relationship between two quantities from a graph.	• (encompasses all learning targets)		
Summarize, represent, and interpret data., A1.DS.A Summarize, represent, and interpret data.	DSP.A I can construct and interpret scatter plots to investigate patterns of association between two quantities.	• (covered in Algebra A)		

Math Curriculum

Alg I Year At-A-Glance:

Quarter 1	Quarter 2

• Unit 1:
  ○ Summarize, represent and interpret data.
• Unit 2:
  ○ Use units to solve problems
  ○ Create equations that describe linear relationships.
  ○ Understand solving equations is a process, and solve equations and inequalities in one variable.
	•

Quarter 3	**Quarter 4**
•	•

Alg I:			Last Revised (Date & Name):	
Priority Standards: (Based on Missouri Learning Standards / CLEs / GLEs)	Prerequisite Standards:	Learning Target:	Assessment Methods:	Instructional Activities & Assignments
Use units to solve problems., A1.NQ.B Use units to solve problems.		• (encompasses all learning targets)		

Create equations that describe various relationships., A1.NQ.A Extend and use properties of rational exponents., A1.SSE.A Interpret and use structure., A1.CED.A Create equations that describe linear, quadratic, and exponential relationships., A1.BF.A.1 Build new functions from existing functions (linear, quadratic, and exponential).	EEI.B Understand the connections between proportional relationships, lines and linear equations.	• Writing Linear Functions • Factoring • Transformations of Quadratics	Writing Linear Functions Factoring Transformations of Quadratics	• Writing Linear Functions • Factoring • Transformations of Quadratics
Solve and interpret equations that describe various relationships., A1.REI.A Understand solving equations as a process, and solve equations and inequalities in one variable., A1.REI.B Solve systems of equations. A1.APR.A Perform operations on polynomials.	EEI.C I can solve linear equations and one variable.	• Solving Linear Equations • Solving Linear Inequalities • Solving Systems of Equations • Solving Quadratics	Solving Linear Equations Solving Linear Inequalities Solving Systems of Equations Solving Quadratics	• Solving Linear Equations • Solving Linear Inequalities • Solving Systems of Equations • Solving Quadratics
Analyze various functions using different representations., A1.REI.C Represent and solve linear and exponential equations and inequalities graphically., A1.IF.C Analyze linear, quadratic, and exponential functions using different representations., A1.LQE.A Construct and compare linear,	EEI.B I can graph proportional relationships.	• Identifying and Evaluating Functions • Graphing and Interpreting Lines • Graphing Quadratics	Identifying and Evaluating Function Graphing and Interpreting Lines Graphing Quadratics	• Identifying and Evaluating Function • Graphing and Interpreting Lines • Graphing Quadratics

quadratic, and exponential models and solve problems.				
Understand and interpret the concept of a function and its notation in terms of the context., A1.IF.A Understand the concept of a function and use function notation., A1.IF.B Interpret linear, quadratic, and exponential functions in terms of the context., A1.LQE.B Use arithmetic and geometric sequences.	F.A I can compare functions represented in a different way. I can investigate the differences between linear and nonlinear functions. F.B I can describe the functional relationship between two quantities from a graph.	• Identifying and Evaluating Functions	Identifying and Evaluating Functions	• Identifying and Evaluating Functions
Summarize, represent, and interpret data. A1.DS.A Summarize, represent, and interpret data.	DSP.A I can construct and interpret scatter plots to investigate patterns of association between two quantities.	• Statistics	Statistics	• Statistics

Math Curriculum

Alg II Year At-A-Glance:

Quarter 1	Quarter 2
• Summarize, represent and interpret data to make inferences and justify conclusions. • Use understanding of transformations of parent functions to graph new functions. • Solve systems of linear and non-linear equations and inequalities	• Solve and interpret equations and inequalities that describe various relationships. (Quadratic Equations) • Solve and interpret equations that describe various relationships. (Polynomial Equations) • Graph quadratic and polynomial functions in various manners.
Quarter 3	**Quarter 4**
• Solve and interpret equations that describe various relationships. (Radical Equations) • Solve and interpret equations and inequalities that describe various relationships. (Exponential and Logarithmic Equations) • Graph radical, exponential, and logarithmic functions.	• Solve and interpret equations that describe various relationships. (Rational Equations) • Graph rational functions. • Use trig identities to solve problems • Graph trig functions • Determine simple and compound probabilities.

Alg II:			Last Revised (Date & Name):	
Priority Standards: (Based on Missouri Learning Standards / CLEs / GLEs)	Prerequisite Standards:	Learning Target:	Assessment Methods:	Instructional Activities & Assignments

Perform operations using various number sets.	A1.NQ.A Extend and use properties of rational exponents. A1.SSE.A Interpret and use structure. A1.APR.A Perform operations on polynomials.	• Perform operations with complex numbers. • Perform operations with radical numbers • Use trig identities to solve problems	Algebra 2 test folder	• Algebra 2 Resource Folder
Solve and interpret equations and inequalities that describe various relationships.	A1.REI.A Understand solving equations as a process, and solve equations and inequalities in one variable. A1.CED.A Create equations that describe linear, quadratic, and exponential relationships. A1.REI.C Represent and solve linear and exponential equations and inequalities graphically. A1.IF.C Analyze linear, quadratic, and exponential functions using different representations. A1.LQE.A Construct and compare linear, quadratic, and exponential models and solve problems.	• Solve systems of linear and non-linear equations and inequalities • Solve and interpret equations and inequalities that describe various relationships. (Quadratic Equations) • Solve and interpret equations that describe various relationships. (Polynomial Equations) • Solve and interpret equations that describe various relationships. (Radical Equations) • Solve and interpret equations and inequalities that describe various relationships. (Exponential and Logarithmic Equations) • Solve and interpret equations that describe various relationships. (Rational Equations)	Algebra 2 test folder	• Algebra 2 Resource Folder

Create new functions from existing functions by performing various operations	A1.CED.A Create equations that describe linear, quadratic, and exponential relationships. A1.BF.A.1 Build new functions from existing functions (linear, quadratic, and exponential).	• Graph radical, exponential, and logarithmic functions. • Use understanding of transformations of parent functions to graph new functions. • Graph quadratic and polynomial functions in various manners. • Graph rational functions. • Graph trig functions	Algebra 2 Test Folder	• Algebra 2 Resources
Create and use quadratic and exponential functions to model and solve real world problems.	A1.LQE.B Use arithmetic and geometric sequences. A1.IF.A Understand the concept of a function and use function notation. A1.IF.B Interpret linear, quadratic, and exponential functions in terms of the context. A1.REI.C Represent and solve linear and exponential equations and inequalities graphically. A1.IF.C Analyze linear, quadratic, and exponential functions using different representations. A1.LQE.A Construct and compare linear, quadratic, and exponential models and solve problems.	• Graph radical, exponential, and logarithmic functions.	Algebra 2 Test Folder	• Algebra 2 Resources
Summarize, represent and interpret data to make inferences and justify conclusions.		• Summarize, represent and interpret data to make inferences and justify conclusions. • Determine simple and compound probabilities.	Algebra 2 Test Folder	• Algebra 2 Resource Folder

Math Curriculum

Geometry Year At-A-Glance:

Quarter 1	Quarter 2
• Probability and Statistics • Students will be able to distinguish the difference between a point, line and a plane. Students will also be able to use the specific properties for each. • Unit 2: Students will understand the various relationships of angles • Unit 3: Students will be able to interpret similar and congruent triangle relationships.	• Unit 4: Students will understand the various properties of the different types of quadrilaterals and use algebraic skills to help them make conclusions • Unit 5: Special right triangles and Trigonometric functions
Quarter 3	**Quarter 4**
• Unit 6: Circles • Unit 7: 3D Shapes	• Unit 8: Analytical Geometry • Preview of Algebra 2 Unit

Geometry:			Last Revised (Date & Name):	
Priority Standards: (Based on Missouri Learning Standards / CLEs / GLEs)	Prerequisite Standards:	Learning Target:	Assessment Methods:	Instructional Activities & Assignments

	Previous Standards: 6th-8th grade math 7.NS.A Number Sense & Operations 2. Apply and extend previous understandings of operations to add, subtract, multiply and divide rational numbers. 1. Analyze proportional relationships and use them to solve problems. 6.GM.A Solve problems involving area, surface area, and volume EEI.A Work with radicals and integer exponents. EEI.B Understand the connections between proportional relationships, lines and linear equations. GM.B Understand and apply the Pythagorean Theorem. GM.C Solve problems involving volume of cones, pyramids and spheres.			
G.CO.A.1 Experiment with transformations in the plane	See Above	• I can understand and distinguish the difference between points, lines and planes	Exit Ticket, Graded Homework, Quizzes, Kahoot, Quizziz, Unit Tests Common Assessments for Geometry	• Big Ideas Textbook resources, khan academy, kahoot, teacher created resources. • Common Assessments for Geometry
Prove geometric theorems algebraically and logically, G.CO.C Prove Geometric Theorems	See Above	• I can prove geometric theorems algebraically and logically	Exit Ticket, Graded Homework, Quizzes, Kahoot, Quizziz, Unit Tests Common Assessments for Geometry	• See Above

Understand and experiment with congruence and similarity transformations, G. CO.B Understand congruence in terms of rigid motion, G.SRT.B Prove theorems involving similarity	See Above	• I can understand and experiment with congruence and similarity transformations	Exit Ticket, Graded Homework, Quizzes, Kahoot, Quizziz, Unit Tests Common Assessments for Geometry	• See Above
Define Trigonometric ratios and solve problems involving right triangles, G.SRT. C Define trigonometric ratios, and solving problems using right triangles	See Above	• I can define Trigonometric ratios and solve problems involving right triangles	Exit Ticket, Graded Homework, Quizzes, Kahoot, Quizziz, Unit Tests Common Assessments for Geometry	• See Above
Apply theorems and formulas related to circles to solve problems, G.C.A Understand and apply theorems about circles, G.C.B Find arc lengths and areas of sectors of circles, G.GPE.A Translate between the geometric descriptions and the equation for a conic section	See Above	• I can apply theorems and formulas related to circles to solve problems	Exit Ticket, Graded Homework, Quizzes, Kahoot, Quizziz, Unit Tests Common Assessments for Geometry	• See Above
Understand independence and conditional probability and use them to interpret data, G. CP.A Understand independence and conditional probability and use them to interpret data.	See Above	• I can understand independence and conditional probability and use them to interpret data	Exit Ticket, Graded Homework, Quizzes, Kahoot, Quizziz, Unit Tests Common Assessments for Geometry	• See Above

Use relationships between two and three dimensional objects to solve problems, G.CO.D Make geometric constructions, G. GMD. A Explain volume formulas and use them to solve problems, G. GMD. B Visualize relationships between two and three dimensional objects, G.MG.A Apply geometric concepts in modeling situations.	*See Above*	• I can use relationships between two and three dimensional objects to solve problems	Exit Ticket, Graded Homework, Quizzes, Kahoot, Quizziz, Unit Tests Common Assessments for Geometry	• See Above

Math Curriculum

Statistics Year At-A-Glance:

Quarter 1	Quarter 2
• Calculate the probability of events • Calculate and interpret summary statistics of univariate data sets • Appropriately collect data and analyze the data • Create and interpret data displays	• Calculate the probability of events • Calculate and interpret summary statistics of univariate data sets • Create and interpret data displays
Quarter 3	**Quarter 4**
• Calculate and interpret summary statistics of bivariate data sets • Create and interpret data displays	• Appropriately collect data and analyze the data collection methods of published works • Create and interpret data displays

Statistics:			Last Revised (Date & Name):	
Priority Standards: (Based on Missouri Learning Standards / CLEs / GLEs)	Prerequisite Standards:	Learning Target:	Assessment Methods:	Instructional Activities & Assignments

Calculate the probability of events		• Calculate the probability of events	Statistics Assessment Folder	• Statistics Folder
Calculate and interpret summary statistics of univariate and bivariate data sets		• Calculate and interpret summary statistics of univariate and bivariate data sets	Statistics Assessment Folder	• Statistics Folder
Appropriately collect data and analyze the data collection methods of published works		• Appropriately collect data and analyze the data collection methods of published works	Statistics Assessment Folder	• Statistics Folder
Create and interpret data displays		• Create and interpret data displays	Statistics Assessment Folder	• Statistics Folder
Recognize patterns and use equations to determine future values		• Recognize patterns and use equations to determine future values	Statistics Assessment Folder	• Statistics Folder
Draw conclusions and inferences from probability and summary statistics		• Draw conclusions and inferences from probability and summary statistics	Statistics Assessment Folder	• Statistics Folder

Math Curriculum

Statistics Ap/DC Year At-A-Glance:

Quarter 1	Quarter 2
•	•
Quarter 3	**Quarter 4**
•	•

Statistics AP/DC:			Last Revised (Date & Name):	
Priority Standards: (Based on Missouri Learning Standards / CLEs / GLEs)	Prerequisite Standards:	Learning Target:	Assessment Methods:	Instructional Activities & Assignments
Describe the center, spread, shape, and irregularities of a data set		• Describe the center, spread, shape, and irregularities of a data set		
Determine appropriate methods for data collection		• Determine appropriate methods for data collection		
Design statistical experiments		• Design statistical experiments		
Appropriately display data graphically		• Appropriately display data graphically		
Determine the relationship between data sets		• Determine the relationship between data sets		

Calculate probability		• Calculate probability		
Describe the sampling distribution		• Describe the sampling distribution		
Estimate and draw inferences for proportions and means		• 8. Estimate and draw inferences for proportions and means		
Design, execute, and draw conclusions from hypothesis tests		• Design, execute, and draw conclusions from hypothesis tests		

Math Curriculum

College Alg DC (Year Long Class) Year At-A-Glance:

Quarter 1	Quarter 2
• Unit 1 Review of basic algebra • Unit 2 Equations & Inequalities • Unit 3 Functions & Graphing • Unit 4 Linear & Quadratic Functions	• Unit 5 Systems & Matrices • Unit 6 Polynomial & Rational Functions • Unit 7 Exponential & Logarithmic Functions • Unit 8 Inverse Functions & Advanced Topics
Quarter 3	**Quarter 4**
• Dual Credit Computer Course through Local College • Currently State Fair	• Same

College Alg DC (Year Long Class):			Last Revised (Date & Name):	
Priority Standards: (Based on Missouri Learning Standards / CLEs / GLEs)	Prerequisite Standards:	Learning Target:	Assessment Methods:	Instructional Activities & Assignments

Solve equations and inequalities with a single variable	All Standards that are required in Algebra II essential for College Algebra	• Solve equations and inequalities with a single variable	In class tests/quizzes, formal/informal assessments State Fair Computer Module	• College Board Materials • Khan Academy • Teacher Created Materials • State Fair Computer Module
Graph functions given its equation by considering its domain and using transformations	See Above	• Graph functions given its equation by considering its domain and using transformations	See Above	• See Above
Solve and graph polynomial equations with degree of three or larger	See Above	• Solve and graph polynomial equations with degree of three or larger	See Above	• See Above
Graph rational functions and determine the corresponding domain and range	See Above	• Graph rational functions and determine the corresponding domain and range	See Above	• See Above
Determine the inverse function of an invertible function	See Above	• Determine the inverse function of an invertible function	See Above	• See Above
Evaluate and graph logarithmic and exponential functions	See Above	• Evaluate and graph logarithmic and exponential functions	See Above	• See Above
Model exponential and logarithmic functions appropriately	See Above	• Model exponential and logarithmic functions appropriately	See Above	• See Above
Solve systems of linear equations with two or three variables	See Above	• Solve systems of linear equations with two or three variables	See Above	• See Above
Use linear inequalities for linear programming	See Above	• Use linear inequalities for linear programming	See Above	• See Above

Math Curriculum

College Alg DC (Semester Long Class) Year At-A-Glance:

Semester 1	Semester 2
• Unit 1 Review of basic algebra • Unit 2 Equations & Inequalities • Unit 3 Functions & Graphing • Unit 4 Linear & Quadratic Functions	• Unit 5 Systems & Matrices • Unit 6 Polynomial & Rational Functions • Unit 7 Exponential & Logarithmic Functions • Unit 8 Inverse Functions & Advanced Topics

College Alg DC (Semester Long Class):			Last Revised (Date & Name):	
Priority Standards: (Based on Missouri Learning Standards / CLEs / GLEs)	Prerequisite Standards:	Learning Target:	Assessment Methods:	Instructional Activities & Assignments

Solve equations and inequalities with a single variable	All Standards that are required in Algebra II essential for College Algebra	• Solve equations and inequalities with a single variable	In class tests/quizzes, formal/informal assessments State Fair Computer Module	• College Board Materials • Khan Academy • Teacher Created Materials • State Fair Computer Module
Graph functions given its equation by considering its domain and using transformations	See Above	• Graph functions given its equation by considering its domain and using transformations	See Above	• See Above
Solve and graph polynomial equations with degree of three or larger	See Above	• Solve and graph polynomial equations with degree of three or larger	See Above	• See Above
Graph rational functions and determine the corresponding domain and range	See Above	• Graph rational functions and determine the corresponding domain and range	See Above	• See Above
Determine the inverse function of an invertible function	See Above	• Determine the inverse function of an invertible function	See Above	• See Above
Evaluate and graph logarithmic and exponential functions	See Above	• Evaluate and graph logarithmic and exponential functions	See Above	• See Above
Model exponential and logarithmic functions appropriately	See Above	• Model exponential and logarithmic functions appropriately	See Above	• See Above
Solve systems of linear equations with two or three variables	See Above	• Solve systems of linear equations with two or three variables	See Above	• See Above
Use linear inequalities for linear programming	See Above	• Use linear inequalities for linear programming	See Above	• See Above

Math Curriculum

Trig DC Year At-A-Glance:

Semester 1	Semester 2
• Unit 1 Unit Circle • Unit 2 Trig Graphs • Unit 3 Trig Functions & Identities • Unit 4 Vectors	• Unit 4 Vectors • Unit 5 Law of Sines & Cosines • Unit 6 Trig Angle Formulas • Unit 7 Limits & Intro to Calculus

Trig DC:			Last Revised (Date & Name):	
Priority Standards: (Based on Missouri Learning Standards / CLEs / GLEs)	Prerequisite Standards:	Learning Target:	Assessment Methods:	Instructional Activities & Assignments
Find the measure of an angle in radians and degrees	All Standards that are required in College Algebra/Geometry are essential for Trigonometry	• Find the measure of an angle in radians and degrees	In class tests/quizzes, formal/informal assessments	• College Board Materials • Khan Academy • Teacher Created Material
Apply the trigonometric functions to right triangle applications	See Above	• Apply the trigonometric functions to right triangle applications	See Above	• See Above
Calculate trigonometric function values given a point on circle, with any radius	See Above	• Calculate trigonometric function values given a point on circle, with any radius	See Above	• See Above
Graph trigonometric functions and determine	See Above	• Graph trigonometric functions and determine	See Above	• See Above

amplitude, phase shift, and period		amplitude, phase shift, and period		
Prove trigonometric identities	See Above	• Prove trigonometric identities	See Above	• See Above
Solve trigonometric equations	See Above	• Solve trigonometric equations	See Above	• See Above
Solve triangles including the ambiguous case	See Above	• Solve triangles including the ambiguous case	See Above	• See Above
Determine approximate trigonometric function values for angles in degrees and radians using appropriate technology	See Above	• Determine approximate trigonometric function values for angles in degrees and radians using appropriate technology	See Above	• See Above

Math Curriculum

Calculus AP/DC Year At-A-Glance:

Quarter 1	Quarter 2
• Unit 1: Limits and Continuity • Unit 2: Definition of a Derivatives/Derivative Rules • Unit 3: Applications of Derivatives	• Unit 4: Approximating Area • Unit 5: Definite Integrals, Anti-differentiation • Unit 6: Applications of Integrals
Quarter 3	**Quarter 4**
• Unit 6: Applications of Integrals • Unit 7: Areas and Volumes • Unit 8: Differential Equations	• Review for AP Exam

Calculus AP/DC:			Last Revised (Date & Name):	
Priority Standards: (Based on Missouri Learning Standards / CLEs / GLEs)	Prerequisite Standards:	Learning Target:	Assessment Methods:	Instructional Activities & Assignments
Evaluate limits of algebraic, trigonometric, logarithmic, and exponential functions	All Standards that are required in College Algebra/Trig are essential for Calculus 1. Find the measure of an angle in radians and degrees 2. Apply the trigonometric functions to right triangle applications 3. Calculate trigonometric function values given a point on circle, with any radius	• I can evaluate limits of algebraic, trigonometric, logarithmic, and exponential functions	In class tests/quizzes, formal/informal assessments Calculus Assessments	• NMSI Materials • College Board Materials • Khan Academy • Teacher Created Materials

	4. Graph trigonometric functions and determine amplitude, phase shift, and period 5. Prove trigonometric identities 6. Solve trigonometric equations 7. Solve triangles including the ambiguous case 8. Determine approximate trigonometric function values for angles in degrees and radians using appropriate technology			
Determine continuity of function of a single real variable	See Above	• I can determine continuity of function of a single real variable	See Above	• See Above
Differentiate algebraic, trigonometric, logarithmic, exponential, composite, and inverse functions	See Above	• I can differentiate algebraic, trigonometric, logarithmic, exponential, composite, and inverse functions	See Above	• See Above
Explain the geometric significance of the derivative of a function	See Above	• I can explain the geometric significance of the derivative of a function	See Above	• See Above
Analyze graphs of functions and solve extrema problems using derivatives	See Above	• I can analyze graphs of functions and solve extrema problems using derivatives	See Above	• See Above
Calculate higher order derivatives and calculate derivatives implicitly	See Above	• I can calculate higher order derivatives and calculate derivatives implicitly	See Above	• See Above
Apply methods of antidifferentiation	See Above	• I can apply methods of antidifferentiation	See Above	• See Above

Evaluate definite integrals using limits and antiderivatives	See Above	• I can evaluate definite integrals using limits and antiderivatives	See Above	• See Above
Apply integration to work, area, volume, centroids, arc lengths, and differential equations	See Above	• I can apply integration to work, area, volume, centroids, arc lengths, and differential equations	See Above	• See Above
Use differentials for approximation of functions when appropriate	See Above	• I can use differentials for approximation of functions when appropriate	See Above	• See Above

Math Curriculum

AP Computer Science Principles Year At-A-Glance:

Quarter 1	Quarter 2
• Unit 1 The Internet • Unit 2 Digital Information	• Unit 3 Intro to Programming • Unit 4 Big Data and Privacy
Quarter 3	**Quarter 4**
• Explore - AP Performance Task • Unit 5 Building Apps	• Unit 6 • Create - AP Performance Task • Unit 7 Post AP Data Tools

AP Computer Science Principles			Last Revised:	
Priority Standards: (Based on Missouri Learning Standards / CLEs / GLEs)	Prerequisite Standards: (Based on Missouri Learning Standards / CLEs / GLEs)	Learning Target	Assessment Methods:	Instructional Activities & Assignments

Unit 1 The Internet		•		•
Unit 2 Digital Information		•		•
Unit 3 Intro to Programming		•		•
Unit 4 Big Data and Privacy		•		•
Explore - AP Performance Task		•		•
Unit 5 Building Apps		•		•
Unit 6		•		•
Create - AP Performance Task		•		•
Unit 7 Post AP Data Tools		•		•