Month	Topic Content	Skills	Major Assessments	Learning Standards (Common Core)	Text Page
September (20 days)	**Number Systems** Review operations with whole and decimal numbers Place value review Exponents: base, exponent, repeated multiplication Order of Operations Number Properties: commutative, associative, distributive, identity, inverse, & zero property of addition and multiplication	I can complete division of whole numbers with a multi-digit divisor. I can compute all operations with decimal numbers. I can evaluate numerical expressions with exponents using the order of operations. I can identify number properties.	Daily Observations Assignments Journal/Notebook Quiz/Test Problem of the day Finish line problems Collaborative group work Chapter Test	**NS 2** - Fluently divide multi-digit numbers **NS 3** - Fluently add, subtract, multiply, decimal numbers **EE 1** - Write and evaluate numerical expressions with whole numbers and exponents **EE 3** - Apply the number properties of operations to generate equivalent expressions. **EE 4** – Identify when two expressions are equivalent. (ex. *3y = y + y + y*)	In textbook: Sections 1.1,1.2,1.3, 2.5,2.6 3.3,3.4
October (20 days)	**Algebraic Expressions & Equations** Algebraic Terms: coefficient, variable, inverse operation, expression, equation, independent and dependent variable. Writing & Evaluating Expressions Writing & Solving Equations Solving inequalities Graphing inequalities Analyze function tables	I can use substitution to evaluate algebraic expressions and solve equations. I can write expressions that record operations with numbers. I can identify parts of an expression using mathematical terms – sum, product, quotient, difference, term, factor,	Daily Observations Assignments Journal/Notebook Quiz/Test Problem of the day Finish line problems Collaborative group work	**EE 2** – Write, read, and evaluate expressions in which letter stand for numbers. Write expressions that record operations with numbers. Identify parts of an expression using mathematical terms – sum, term, factor, and coefficient. Evaluate expressions (and apply formulas) Use order of operations correctly. **EE 5** - Solving an equation or inequality is a process of answering a question of a value or values from a given set. Use substitution to determine if the equation or inequality is true. **EE 6** - Use variable to write and solve equations	In textbook: Sections 3.1,3.2 7.1,7.2,7.3, 7.4,7.5,7.6, 7.7

	Solving a proportion	and coefficient. I can evaluate expressions using order of operations. I can solve one and two step equations using the inverse operation. I can translate a 2 step verbal sentences into an algebraic equation. I can solve and graph an inequality on a number line. I can use the correct steps to solve a proportion.	Chapter Test	related to real world problems **EE 7** – Solve real world and mathematical problems by writing and solving equations. **EE 8** - Write an inequality; represent data on a number line **EE 9** – Use dependent and independent variables to represent two quantities that change in relationship to one another; write an equation to express one quantity (dependent variable) in terms of the other quantity (independent variable).	
November (15 days)	**Geometry Concepts** <u>Triangles</u>: acute, right, obtuse, scalene, isosceles, equilateral, <u>Quadrilaterals:</u> square, rectangle, parallelogram, trapezoid, <u>Other Polygons</u>: hexagon, pentagon, octagon, <u>3-D Space Figures:</u> sphere, prism, pyramid, net, face, vertex, edge, cube, polyhedron <u>Coordinate Geometry:</u> X and Y axis, origin, coordinate plane,	I can identify regular polygons. I can find the perimeter of a polygon. I can find the area of quadrilaterals and triangles. I can identify polyhedrons and name the number of faces, vertices and edges. I can create a polyhedron from a net. I can identify the parts of a coordinates: Plane, X & Y axis, quadrant, origin, and ordered pairs. I can find locations on a	Daily Observations Assignments Journal/Notebook Quiz/Test Problem of the day Finish line problems Collaborative group work Chapter Test	**G 1** - Area of Triangles and special quadrilaterals **G 3** - Draw polygons in coordinate planes. Find lengths of sides with same x or y coordinate. **G 4** - Represent 3-d shapes using nets made up of triangles and rectangles.	In textbook: Sections 4.1,4.2,4.3, 4.4

	quadrants, ordered pair Formula Review: Perimeter and Area	coordinate grid using ordered pairs of numbers. I can calculate the area and perimeter of a figure.			
December (15 days)	**Geometric Formulas** Area of irregular figures Surface Area Volume Labeling units	I can find the area of irregular figures, quadrilaterals, and triangles. I can calculate the surface area of rectangular prisms using nets. I can find the volume of rectangular prisms. I can apply the given formulas for area, surface area, & volume. I can label units correctly.	Daily Observations Assignments Journal/Notebook Quiz/Test Problem of the day Finish line problems Collaborative group work Chapter Test	. **Solve Surface Area and Volume problems** **G 1** - Area of Triangles and special quadrilaterals **G 2** - Volume of rectangular prisms applying the formulas $V = lwh$ and $V = bhd$ **G 4** - Represent 3-d shapes using nets made up of triangles and rectangles. Use these to find surface area of figures	In textbook: Sections 8.1,8.2,8.3, 8.4
January (20 days)	**Fractions** Multiply and divide fractions/mixed number Simplest form Mixed numbers Improper fractions Least common multiple/denominator Greatest common factor	I can list the factors and multiples of a number. I can complete the prime factorization of a number. I can identify prime and composite numbers. I can find the divisibility of a number. I can reduce a fraction to simplest form.	Daily Observations Assignments Journal/Notebook Quiz/Tests Problem of the day Finish line problems	**NS 1** - Apply and extend previous understandings of multiplication and division to divide fractions. Compute quotients of fractions and solve word problems involving division of fractions. **NS 4** - Find the greatest common factor of 2 whole numbers up to 100 and the least common multiple of 2 whole numbers 12 or under. (Use distributive property to express it.)(factors, multiples, divisibility, prime, composite, prime factorization)	In textbook: Sections 1.5,1.6,2.1, 2.2,2.3,

		I can change a mixed number into an improper fraction.	Collaborative group work		
	Reciprocal		Chapter Test		
	Divisibility	I can change an improper fraction into a mixed number.			
	Prime				
	Composite	I can find the greatest common factor.			
	Factors				
	Multiples	I can find the least common multiple.			
	Prime factorization	I can multiply and divide fractions & mixed numbers.			
		I can change a fraction into a decimal and a percent.			
February - March (30 days)	**Ratio, Proportions and Percent**	I can create a ratio.	Daily Observations	**RP 1** - Understand the concept of ratio and use ratio language to describe a ratio relationship between two quantities.	In textbook: Sections 5.1,5.2,5.3, 5.4,5.5,5.6, 5.7
		I can set up a proportion to solve a real world problem.			
	Ratio		Assignments	**RP 2** -Unit rate (a/b) associated with ratio a:b with b not equal to zero is the same at a/b.	
	Proportions	I can follow the steps to solve a proportion.	Journal/Notebook		
	Ratio vs. Rate	I can calculate unit rates.	Quiz/Tests	**RP 3** -Ratio and rate reasoning	
	Unit rate	I can identify the difference between unit rate and a ratio.	Problems of the day	Tables of equivalent fractions	
	Percent of a Number			Unit rate problems – setting up proportions and solving proportions	
	Similar figures	I can create equivalent ratios.	Finish line problems		
	Scale		Collaborative group work	Find percent of a number (quantity)	
	Scale drawings	I can convert measurements using a ratio or scale.	Chapter Test	Use ratio reasoning to converts measurement units; manipulate and transform units appropriately when multiplying or dividing quantities.	
	Convert measures	I can calculate a unit rate.			

		I can find percent of number. I can discuss scale as a ratio. I can solve real world problems with scale. I can create scale drawings. I can convert both customary and metric units of measure.			
End of March (10 days)	**Integers** Opposites Positive integers Negative integers Absolute value Rational number Coordinate plane Number lines	I can express how integers relate to the real world. I can name rational numbers. I can compare and order rational numbers. I can identify integers and their opposites. I can find the absolute value of an integer I can locate locations on a coordinate plane. I can locate integers on a number line.	Daily Observations Assignments Journal/Notebook Quiz/Tests Problems of the day Finish line problems Collaborative group work Chapter Test	**NS 5** - Positive and negative integers describe quantities have opposite values **NS 6** - Identify rational numbers on a number line. **NS 7** - Understand ordering and absolute value of rational numbers **NS 8** - Graph points in all four quadrants on a coordinate plane. Calculate distances between points using absolute value.	In textbook: Sections 6.1,6.2,6.3, 6.4,6.5,
April	NYS Test Review/NYS Test	NYS Test Review/NYS Test	Review/NYS Test	NYS Test Review/NYS Test	
May (25 days)	**Statistics** Calculate Central Tendency: Mean, Mode, Median & Range Display data on number lines, dot plots, histograms, and box plots, frequency	I can create a statistical question. I can find the mean, mode, median & range for data. I can display data on a number line, dot plot, histogram, box plot, and	Daily Observations Assignments Journal/Notebook Quiz/Test	**SP 1** - Recognize a statistical question as one that anticipates variability in the data related to the question and accounts for it in the answers. **SP 2** -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. **SP 3** - Recognize that a measure of center for a numerical	In textbook: Sections 9.1,9.2,9.3, 9.4,9.5, 10.1,10.2, 10.3,10.4,

	tables. Absolute deviation Survey Statistical question Population Samples Bias Outliers Predictions Conclusions	frequency table. I can make predictions and conclusions based on the given data. I can complete a survey and display my results. I can read bar graphs, line graphs and circle graphs. I can recognize bias and outliers I can calculate the mean absolute deviation. I can find the interquartile range on a box graph.	Problem of the day Finish line problems Collaborative group work Chapter Test	data set summarizes all of its value with a single number, while a measure of variation describes how its values vary with a single number. **SP 4** - Display numerical data in plots on a number line, including dot plots, histograms and box plots. **SP 5** - Summarize numerical data sets in relations to their context by: number of observations, mean, median, interquartile range, mean absolute deviation, and outliers.	
June	Review for the test/Final Review/ Survey Project				