	GMS Curriculum Map Grade 6 Math				
Unit Overview	Students use the meaning of fractions, the meanings of multiplication and division, and the relationship between multiplication & division to understand & explain why the procedures for dividing fractions make sense. Students use these operations to solve problems. Students extend their previous understandings of number & the ordering of numbers to the full system of rational numbers, which includes negative rational numbers, and in particular negative integers. They reason about the order & absolute value of rational numbers & about the location of points in all four quadrants of the coordinate plane.	Students use reasoning about multiplication & division to solve ratio & rate problems about quantities. By viewing equivalent ratios and rates as deriving from, and extending, pairs of rows (or columns) in the multiplication table, and by analyzing simple drawings that indicate the relative size of quantities, students connect their understanding of multiplication and division with ratios and rates. Thus students expand the scope of problems for which they can use multiplication and division to solve problems, and they connect ratios and fractions. Students solve a wide variety of problems involving ratios and rates.	Students understand the use of variables in mathematical expressions. They write expressions and equations that correspond to given situations, evaluate expressions, and use expressions and formulas to solve problems. Students understand that expressions in different forms can be equivalent, and they use the properties of operations to rewrite expressions in equivalent forms. Students know that the solutions of an equation are the values of the variables that make the equation true. Students use properties of operations and the idea of maintaining the equality of both sides of an equation to solve simple one-step equations. Students construct and analyze tables, such as tables of quantities that are in equivalent ratios, and they use equations to describe relationships between quantities.	Students build on their work with area by reasoning about relationships among shapes to determine area, surface area, and volume. They find areas of right triangles, other triangles, and special quadrilaterals by decomposing these shapes, rearranging or removing pieces, and relating the shapes to rectangles. Using these methods, students discuss, develop, and justify formulas for areas of triangles and parallelograms. Students find areas of polygons and surface area of prisms and pyramids by decomposing them into pieces whose area they can determine. They reason about right rectangular prisms with fractional side lengths to extend formulas for the volume of a right rectangular prism to fractional side lengths. They draw polygons in the coordinate plane.	Building on and reinforcing their understanding of number, students begin to develop their ability to think statistically. Students recognize that a data distribution may not have a definite center and that different ways to measure center yield different values. The median measures center in the sense that it is roughly the middle value. The mean measures center in the sense that it is the value that each data point would take on if the total of the data values were redistributed equally, and also in the sense that it is a balance point. Students recognize that a measure of variability (interquartile range or mean absolute deviation) can also be useful for summarizing data because two very different sets of data can have the same mean and median yet be distinguished by their variability. Students learn to describe and summarize numerical data sets, identifying clusters, peaks, gaps, and symmetry, considering the context in which the data were collected.
Duration	24 Days & 25 Days	35 Days	45 Days	25 Days	25 Days
Priority Standards are Highlighted In Blue	**6.NS.1** **6.NS.2** **6.NS.3** **6.NS.4** **6.NS.5** **6.NS.6** **6.NS.7** **6.NS.8**	**6.RP.A.1** **6.RP.A.2** **6.RP.A.3**	**6.EE.A.1** **6.EE.A.2** **6.EE.A.3** **6.EE.A.4** **6.EE.B.5** **6.EE.B.6** **6.EE.B.7** **6.EE.B.8** **6.EE.C.9**	**6.G.A.1** **6.G.A.2** **6.G.A.3** **6.G.A.4**	**6.SP.A.1** **6.SP.A.2** **6.SP.A.3** **6.SP.B.4** **6.SP.B.5**
Essential Questions	1. Why do we need to know the relationships between positive and negative numbers and zero ?	1. What are the benefits of finding rate or unit rate? 2. When and why do I use proportional comparisons?	1. When does it benefit you to translate words into expressions or equations? 2. When might creating an equation be useful in solving a problem?	1. What is dimension? 2. How can the inside of a two dimensional figure be measured? 3. How can the surface area and volume of a 3 dimensional figure be measured and when might you need to do this?	1. How can I solve a problem which includes a subject that has variability?

					2. How do I know when to use mean, median or mode to describe a given data set?
Instructional Strategies	● Gradual release of responsibility ● Illustrative Mathematics ● Using non linguistic representations ● Small groups and learning stations ● EngageNY: exploration, practice, formative assessments ● Providing real world application ● Cooperative learning tasks ● Cues, questions and advanced organizers ● Rigorous and open ended tasks fostering self discovery and independent learning	• Providing real world application • Cooperative learning tasks • Partner work • Testing hypotheses • Comparing and contrasting solutions • Rigorous and open ended tasks fostering self discovery and independent learning • Cues, questions and advanced organizers • Illustrative Mathematics • EngageNY: exploration, practice, formative assessments	• Illustrative Mathematics • EngageNY: exploration, practice, formative assessments • Providing real world application • Cooperative learning tasks • Rigorous and open ended tasks fostering self discovery and independent learning • Cues, questions and advanced organizers • Nonlinguistic representations	• Nonlinguistic representations • Illustrative Mathematics • EngageNY: exploration, practice, formative assessments • Providing real world application • Cooperative learning tasks • Rigorous and open ended tasks fostering self discovery and independent learning • Gradual release of responsibility	• Illustrative Mathematics • EngageNY: exploration, practice, formative assessments • Providing real world application • Cooperative learning tasks • Rigorous and open ended tasks fostering self discovery and independent learning • Gradual release of responsibility
Key Resources /Texts	Engage NY Module 2 & 3 Holt ch. 11 SBAC practice items NWEA Map	Engage NY Holt SBAC practice items NWEA Map	Engage NY Module 4 Holt ch. 2 SBAC practice items NWEA Map	Engage NY Holt SBAC practice items NWEA Map	Engage NY Holt SBAC practice items NWEA Map
Assessment	Mid/EndModule Think Smart for the Smarter Balanced Assessment, Chapter 5 PT IAB	Mid/EndModule Teacher created IAB	Mid/EndModule Teacher created IAB	Mid/EndModule Teacher created IAB	Mid/EndModule Teacher created IAB
Performance Tasks	Rational Numbers PT	Chapter 2 Think Smart for the Smarter Balanced Assessment	SBAC Design a Garden PT	SBAC Aquarium PT	Statistical question research project
Writing Tasks	Performance tasks require students to write their explanations and justifications for their answers in paragraph form, using sequence words, and math vocabulary.	Performance tasks require students to write their explanations and justifications for their answers in paragraph form, using sequence words, and math vocabulary.	Performance tasks require students to write their explanations and justifications for their answers in paragraph form, using sequence words, and math vocabulary.	Performance tasks require students to write their explanations and justifications for their answers in paragraph form, using sequence words, and math vocabulary.	Performance tasks require students to write their explanations and justifications for their answers in paragraph form, using sequence words, and math vocabulary.