



Course-at-a-Glance (CAG) --- Mathematics --- Grade 6

First Semester	Second Semester
<p>Unit 1: Number and Operations (2 weeks) Approximate dates: August 29 – September 12, 2016</p> <p>1.1 I can demonstrate prime factorization using exponents. (6.1.1.5, 6.1.1.7) 1.2 I can use greatest common factors and least common multiples to calculate with fractions and find their equivalents. (6.1.1.6) 1.3 I can create equivalent expressions using order of operations, the associative, commutative, and distributive properties with whole numbers and addition and subtraction of fractions. (6.2.2.1)</p> <p>Unit 2: Rational Numbers (4 weeks) Approximate dates: September 13 – October 10, 2016</p> <p>2.1 I can convert rational numbers to equivalent expressions including fractions, mixed numbers, and improper fractions. (6.1.1.7) 2.2 I can use estimation and know if my answer makes sense. (6.1.3.5) 2.3 I can justify procedures for multiplication and division of fractions, and solve real-world problems using fractions and mixed numbers. (6.1.3.1, 6.1.3.2, 6.1.3.4) 2.4 I can create equivalent expressions using order of operations, the associative, commutative, and distributive properties with whole numbers and fractions. (6.2.2.1)</p> <p>Unit 3: 2-D and 3-D Geometry (4 weeks) Approximate dates: October 11 – November 14, 2016</p> <p>3.1 I can calculate the area of a variety of quadrilaterals, and justify the formulas and/or other methods used. (6.3.1.2) 3.2 I can estimate the perimeter and area of irregular figures on a grid when they cannot be decomposed into common figures. (6.3.1.3) 3.3 I can justify how I solve mathematical and real-world problems involving the surface area and volume of prisms. (6.3.1.1)</p> <p>Unit 4: More Rational Numbers (5 weeks) Approximate dates: November 15, 2016 – January 6, 2017</p> <p>4.1 I can use estimation and know if my answer makes sense. (6.1.3.5) 4.2 I can use and justify procedures for multiplication and division of decimals, fractions, and mixed numbers. (6.1.3.1, 6.1.3.2) 4.3 I can solve real-world mathematical problems with combinations of decimals, fractions, and mixed numbers. (6.1.3.4) 4.4 I can create equivalent expressions using order of operations, the associative, commutative, and distributive properties with positive rational numbers. (6.2.2.1) 4.5 I can determine the equivalence among fractions, decimals and percents. (6.1.1.4) 4.6 I can compare fractions, decimals and percents using equality and inequality symbols. (6.1.1.2, 6.1.1.3) 4.7 I can use percents in my daily life. (6.1.3.3)</p> <p>Unit 5: Ratio and Rates (5 weeks) Approximate dates: January 9 – February 16, 2017</p> <p>5.1 I can solve problems in a variety of contexts by comparing ratios and applying the relationship between ratios, equivalent fractions and percent. (6.1.2.1, 6.1.2.2) 5.2 I can use rates to solve real-world problems. (6.1.2.3, 6.1.2.4)</p>	<p>Unit 5: Ratios and Rates (cont.)</p> <p>5.3 I can estimate weights, capacities and geometric measurements using benchmarks, and use the appropriate units. (6.3.3.2) 5.4 I can solve real-world problems involving conversion of weights, capacity, measurements and time. (6.3.3.1)</p> <p>Unit 6: Probability (3 weeks) Approximate dates: February 21 – March 13, 2017</p> <p>6.1 I can use theoretical probability to measure the likelihood of an event happening or not happening. (6.4.1.2) 6.2 I can make predictions using experimental probability. (6.4.1.3, 6.4.1.4) 6.3 I can analyze probability situations to determine sample space and likelihood of related events occurring, and use the analysis to make decisions and predictions. (6.4.1.1, 6.4.1.2) 6.4 I can compare results from probability experiments to known theoretical probability. (6.4.1.3, 6.4.1.4)</p> <p>Unit 7: Algebra (6 weeks) Approximate dates: March 14 – April 28, 2017</p> <p>7.1 I can locate positive rational numbers on a number line and plot ordered pairs on a coordinate grid. (6.1.1.1) 7.2 I can identify the variables in a real-world situation and describe their relationship to each other. (6.2.1.1) 7.3 I can write equations and inequalities with variables to represent real-world situations. (6.2.3.1) 7.4 I can solve equations with variables in context using number sense and properties of arithmetic and equality. (6.2.3.2) 7.5 Given a representation of a function, I can move flexibly between tables, graphs, and equations. (6.2.1.2) 7.6 I can determine the measurement of angles formed by intersecting lines. (6.3.2.1) 7.7 I can prove the sum of the interior angles of any type of polygon. (6.3.2.2, 6.3.2.3)</p> <p>MCA Testing (1 week) Units 1 – 7 must be taught prior to MCA testing. Approximate dates: May 1-5, 2017</p> <p>Unit 8: Similarity (5 weeks) Approximate dates: May 8 – June 14, 2017</p> <p>8.1 I can use algebraic rules to describe and produce translations and reflections of figures on a coordinate grid. (7.3.2.4) 8.2 I can determine if two figures are similar. (7.3.2.1) 8.3 I can find missing measures in similar figures using scale factors and/or length and area ratios. (7.3.2.2) 8.4 I can use the properties of similarity to solve problems involving scale drawings. (7.3.2.3)</p> <p><i>These benchmarks are covered at the end of 6th-grade in order for all students to be on track to pass the linear portion of Algebra in 8th grade.</i></p>