

| Weeks<br>1-6 OAS 2016 |   |
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| 6.A.2.1               | Generate equivalent expressions and evaluate expressions involving positive rational numbers by applying the commutative, associative, and distributive properties and order of operations to solve real-world and mathematical problems.                 |
| 6.GM.1.1              | Develop and use formulas for the area of squares and parallelograms using a variety of methods including but not limited to the standard algorithm.   |
| 6.N.1.5               | Factor whole numbers and express prime and composite numbers as a product of prime factors with exponents.  |
| 6.N.1.6               | Determine the greatest common factors and least common multiples. Use common factors and multiples to calculate with fractions, find equivalent fractions, and express the sum of two-digit numbers with a common factor using the distributive property. |
| 6.N.4.1               | Estimate solutions to problems with whole numbers, decimals, fractions, and mixed numbers and use the estimates to assess the reasonableness of results in the context of the problem.  |
| 6.N.4.2               | Illustrate multiplication and division of fractions and decimals to show connections to fractions, whole number multiplication, and inverse relationships.  |
| 6.N.4.3               | Multiply and divide fractions and decimals using efficient and generalizable procedures.  |
| 6.N.4.4               | Solve and interpret real-world and mathematical problems including those involving money, measurement, geometry, and data requiring arithmetic with decimals, fractions and mixed numbers.  |
| Academic Vocabulary   | Power, base, exponent, perfect square, numerical expression, evaluate, order of operations, prime number, composite number, factor pair, prime factorization, factor tree, venn diagram, common factors, GCF common multiples, LCM, LCD, reciprocals      |
| Resources             | Big Ideas Math Chapter 1  |
|                       | Big Ideas Math Chapter 2 (lesson 1)   |
|                       | Oklahoma Department of Education Website  |
|                       | IXL   |
|                       | Fast Bridge   |

| <div>Weeks</div> <div>7-12</div> <div>OAS 2016</div> |   |
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| 6.A.1.3  | Use and evaluate variables in expressions, equations, and inequalities that arise from various contexts, including determining when or if, for a given value of the variable, an equation or inequality involving a variable is true or false.  |
| 6.A.2.1  | Generate equivalent expressions and evaluate expressions involving positive rational numbers by applying the commutative, associative, and distributive properties and order of operations to solve real-world and mathematical problems.   |
| 6.A.3.1  | Represent real-world or mathematical situations using expressions, equations and inequalities involving variables and rational numbers.   |
| 6.N.1.1  | Represent integers with counters and on a number line and rational numbers on a number line, recognizing the concepts of opposites, direction, and magnitude; use integers and rational numbers in real-world and mathematical situations, explaining the meaning of 0 in each situation.                                   |
| 6.N.1.6  | Determine the greatest common factors and least common multiples. Use common factors and multiples to calculate with fractions, find equivalent fractions, and express the sum of two-digit numbers with a common factor using the distributive property.   |
| 6.N.2.1  | Estimate solutions to addition and subtraction of integers problems in order to assess the reasonableness of results.   |
| 6.N.2.2  | Illustrate addition and subtraction of integers using a variety of representations.   |
| 6.N.4.1  | Estimate solutions to problems with whole numbers, decimals, fractions, and mixed numbers and use the estimates to assess the reasonableness of results in the context of the problem.  |
| 6.N.4.2  | 6.N.4.2 Illustrate multiplication and division of fractions and decimals to show connections to fractions, whole number multiplication, and inverse relationships.  |
| 6.N.4.3  | Multiply and divide fractions and decimals using efficient and generalizable procedures.  |
| 6.N.4.4  | Solve and interpret real-world and mathematical problems including those involving money, measurement, geometry, and data requiring arithmetic with decimals, fractions and mixed numbers.  |
| Academic Vocabulary                                  | algebraic expression, coefficient, like terms, terms, constant, factoring an expression, variable, equivalent expressions, polygon, composite figure, Positive Numbers, Rational Number, Coordinate Plane, Negative, Numbers, Absolute Value, Origin, Opposites, Additive Inverse, Quadrants, Integers, equation, solution, |
| Resources  | Big Ideas Math Chapter 2 (Lessons 2-6)  |
|  | Big Ideas Math Chapter 3  |
|  | Big Ideas Math Chapter 6 (Lessons 1-4)  |
|  | Oklahoma Department of Education Website  |
|  | IXL   |
|  | Fast Bridge   |

| Weeks<br>13-18 OAS 2016 |   |
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| 6.A.1.1                 | Plot integer- and rational-valued (limited to halves and fourths) ordered-pairs as coordinates in all four quadrants and recognize the reflective relationships among coordinates that differ only by their signs.  |
| 6.GM.1.1                | Develop and use formulas for the area of squares and parallelograms using a variety of methods including but not limited to the standard algorithm.   |
| 6.GM.1.2                | Develop and use formulas to determine the area of triangles.  |
| 6.GM.1.3                | Find the area of right triangles, other triangles, special quadrilaterals, and polygons that can be decomposed into triangles and other shapes to solve real-world and mathematical problems.   |
| 6.GM.4.1                | Predict, describe, and apply translations (slides), reflections (flips), and rotations (turns) to a two-dimensional figure. rotations to establish congruency and understand symmetries.  |
| 6.GM.4.2                | Recognize that translations, reflections, and rotations preserve congruency and use them to show that two figures are congruent.  |
| 6.GM.4.3                | Use distances between two points that are either vertical or horizontal to each other (not requiring the distance formula) to solve real-world and mathematical problems about congruent two-dimensional figures.   |
| 6.GM.4.4                | Identify and describe the line(s) of symmetry in two-dimensional shapes.  |
| 6.N.1.1                 | Represent integers with counters and on a number line and rational numbers on a number line, recognizing the concepts of opposites, direction, and magnitude; use integers and rational numbers in real-world and mathematical situations, explaining the meaning of 0 in each situation. |
| 6.N.2.1                 | Estimate solutions to addition and subtraction of integers problems in order to assess the reasonableness of results.   |
| 6.N.2.2                 | Illustrate addition and subtraction of integers using a variety of representations.   |
| 6.N.2.3                 | Add and subtract integers; use efficient and generalizable procedures including but not limited to standard algorithms.   |
| Academic Vocabulary     | <p> polygon, composite figure, Transformation, Image, Translation, Reflection, Line of Reflection, Line of Symmetry, Rotations, Center of Rotation, Angle of Rotation </p>  |
| Resources               | Big Ideas Math Chapter 6 (Lessons 5-7), Chapter 4, Chapter 9  |
|                         | Oklahoma Department of Education Website  |
|                         | IXL   |
|                         | Fast Bridge   |

| Weeks<br>19-24      |   | OAS 2016 |
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| 6.A.1.2             | Represent relationships between two varying quantities involving no more than two operations with rules, graphs, and tables; translate between any two of these representations.  |          |
| 6.A.1.3             | Use and evaluate variables in expressions, equations, and inequalities that arise from various contexts, including determining when or if, for a given value of the variable, an equation or inequality involving a variable is true or false.  |          |
| 6.A.3.1             | Represent real-world or mathematical situations using expressions, equations and inequalities involving variables and rational numbers.   |          |
| 6.A.3.2             | Use number sense and properties of operations and equality to solve real-world and mathematical problems involving equations in the form $a + p = q$ and $a = b$ , where $a$ , $p$ , and $q$ are nonnegative rational numbers. Graph the solution on a number line, interpret the solution in the original context, and assess the reasonableness of the solution.  |          |
| 6.GM.3.1            | Estimate weights, capacities and geometric measurements using benchmarks in customary and metric measurement systems with appropriate measurement and use ratios to convert units. within measurement systems to solve real-world and mathematical problems.  |          |
| 6.GM.3.2            | Solve problems in various real-world and mathematical contexts that require the conversion of weights, capacities, geometric measurements, and time within the same measurement systems using appropriate units.  |          |
| 6.N.3.1             | Identify and use ratios to compare quantities. Recognize that multiplicative comparison and additive comparison are different.  |          |
| 6.N.3.2             | Determine the unit rate for ratios.   |          |
| 6.N.3.3             | Apply the relationship between ratios, equivalent fractions and percents to solve problems in various contexts, including those involving mixture and concentrations.   |          |
| 6.N.3.4             | Use multiplicative reasoning and representations to solve ratio and unit rate problems.   |          |
| Academic Vocabulary | Ratio, Unit rate, metric system, equivalent ratios, equivalent rates, conversion factor, ratio table, percent, unit analysis, rate, U.S. customary system, inverse operations, equation in two variables, solution of an equation in two variables, solution of an equation in two variables, independent variable, dependent variable, inequality, solution of an inequality, solution set, graph of an inequality |          |
| Resources           | Big Ideas Math Chapter 5  |          |
|                     | Big Ideas Math Chapter 7 (Lessons 1-3)  |          |
|                     | Oklahoma Department of Education Website  |          |
|                     | IXL   |          |
|                     | Fast Bridge   |          |

| Weeks<br>25-30      |  | OAS 2016 |
|---------------------|--|----------|
| 6.A.1.2             | Represent relationships between two varying quantities involving no more than two operations with rules, graphs, and tables; translate between any two of these representations.   |          |
| 6.A.1.3             | Use and evaluate variables in expressions, equations, and inequalities that arise from various contexts, including determining when or if, for a given value of the variable, an equation or inequality involving a variable is true or false.   |          |
| 6.A.3.1             | Represent real-world or mathematical situations using expressions, equations and inequalities involving variables and rational numbers.  |          |
| 6.D.1.1             | Display and analyze data. 6.D.1.1 Calculate the mean, median, and mode for a set of real-world data.   |          |
| 6.D.1.2             | Explain and justify which measure of central tendency (mean, median, or mode) would provide the most descriptive information for a given set of data.  |          |
| 6.D.1.3             | Create and analyze box and whisker plots observing how each segment contains one quarter of the data.  |          |
| 6.D.2.1             | Represent possible outcomes using a probability continuum from impossible to certain.  |          |
| 6.D.2.2             | Determine the sample space for a given experiment and determine which members of the sample space are related to certain events. Sample space may be determined by the use of tree diagrams, tables or pictorial representations.  |          |
| 6.D.2.3             | Demonstrate simple experiments in which the probabilities are known and compare the resulting relative frequencies with the known probabilities, recognizing that there may be differences between the two results.  |          |
| 6.GM.2.1            | Solve problems using the relationships between the angles (vertical, complementary, and supplementary) formed by intersecting lines.   |          |
| 6.GM.2.2            | Develop and use the fact that the sum of the interior angles of a triangle is 180 to determine missing angle measures in a triangle.   |          |
| 6.GM.4.1            | Predict, describe, and apply translations (slides), reflections (flips), and rotations (turns) to a two-dimensional figure. rotations to establish congruency and understand symmetries.   |          |
| 6.GM.4.2            | Recognize that translations, reflections, and rotations preserve congruency and use them to show that two figures are congruent.   |          |
| 6.GM.4.4            | Identify and describe the line(s) of symmetry in two-dimensional shapes.   |          |
| 6.N.4.4             | 6.N.4.4 Solve and interpret real-world and mathematical problems including those involving money, measurement, geometry, and data requiring arithmetic with decimals, fractions and mixed numbers.   |          |
| Academic Vocabulary | Adjacent angles, Vertical Angles, Congruent Angles, Complementary Angles, Supplementary Angles, Congruent Sides, Congruent Figures, Corresponding Angles, Corresponding Sides, statistics, statistical question, mean, measure of center, median, mode, measure of variation, range, quartiles, first quartile, third quartile, interquartile range, box-and-whisker plot, five-number summary, experiment, outcomes, event, favorable outcomes, sample space, compound event, Fundamental Counting Principle, probability, relative frequency |          |
| Resources           | Big Ideas Math Chapter 7 (Lesson 4-5)  |          |
|                     | Big Ideas Math Chapter 8   |          |
|                     | Big Ideas Math Chapter 10  |          |
|                     | Oklahoma Department of Education Website   |          |
|                     | IXL  |          |
|                     | Fast Bridge  |          |
|                     | State Test Review  |          |

| Weeks<br>31-36 OAS 2016 |   |
|-------------------------|---|
| 7.A.3.1                 | Write and solve problems leading to linear equations with one variable in the form $px + q = r$ and $p(x + q) = r$ , where $p$ , $q$ , and $r$ are rational equations and inequalities.   |
| 7.A.3.3                 | Represent real-world or mathematical situations using equations and inequalities involving variables and rational numbers.  |
| 7.N.2.3                 | 7.N.2.3 Solve real-world and mathematical problems involving addition, subtraction, multiplication and division of rational numbers; use efficient and generalizable procedures including but not limited to standard algorithms. |
| 7.GM.4.1                | Describe the properties of similarity, compare geometric figures for similarity, and determine scale factors resulting from dilations, translations, and reflections on the attributes of two-dimensional figures on              |
| 7.GM.4.2                | Apply proportions, ratios, and scale factors to solve problems involving scale drawings and determine side lengths and areas of similar and off the coordinate plane.   |
| 7.GM.4.3                | Graph and describe translations and reflections of figures on a coordinate plane and determine the coordinates of the vertices of the figure after the transformation.  |
| Academic Vocabulary     | dilations, tessellations  |
| Resources               | Big Ideas 7th grade book  |
|                         | Teacher Resources   |
|                         | Post Test   |
|                         | Fast Bridge   |