

Teacher: _____

School Year: _____

Sixth Grade Objective Sheet

Student: _____

Objectives:	1	2	3	4	Comments:
NUMBER AND OPERATIONS					
1. Analyze numbers using place value and prime factorization. Solve problems involving basic operations of rational numbers					
a. Compare and order rational numbers using symbols ($<$, $>$, and $=$) and a number line. (DOK 1)					
b. Use estimation strategies to determine the reasonableness of results in a variety of situations including rational number computations. (DOK 2)					
c. Determine the Greatest Common Factor (GCF) and Least Common Multiple (LCM) of two numbers. (DOK 2)					
d. Compute using basic operations with fractions and mixed numbers. Express answers in the simplest form. (DOK 1)					
e. Solve problems by dividing whole and decimal numbers by decimals and interpret the quotient and remainder within the problem context. (DOK 2)					
f. Explain the relationship(s) among fractions, decimals, and percents and model and represent a specific quantity in multiple ways. (DOK 2)					
g. Model addition and subtraction of integers with physical materials and the number line. (DOK 2)					

h. Solve problems by finding the percentage of a number including percentages greater than 100 and less than 1. (DOK 2)					
i. Multiply four-digit numbers by two-digit numbers (including whole numbers and decimals). (DOK 1)					
j. Explain the meaning of multiplication and division of rational numbers. (DOK 2)					
k. Explain the meaning and relationship between absolute value and opposites. (DOK 2)					
ALGEBRA					
<i>2. Use algebraic functions, patterns, and language across a variety of contexts.</i>					
a. Solve simple equations using guess-and-check, diagrams, properties, or inspection, explaining the process used. (DOK 2)					
b. Complete a function table based on a given rule. (DOK 2)					
c. Formulate algebraic expressions, equations, and inequalities to reflect a given situation. (DOK 2)					
d. State the following properties using variables and apply them in solving problems: (DOK 1) ·Zero property of multiplication ·Inverse properties of addition/subtraction and multiplication/division ·Commutative and associative properties of addition and multiplication ·Identity properties of addition and multiplication ·Distributive properties of multiplication over addition and subtraction					

e. Describe a rule for a function table using words, symbols, and points on a graph and vice versa. (DOK 2)					
GEOMETRY					
3. <i>Analyze geometric relationships of lines, angles, two- and three-dimensional shapes, and transformations.</i>					
a. Compare, classify, and construct transformations (reflections, translations, and rotations). (DOK 3)					
b. Construct three-dimensional figures using manipulatives and generalize the relationships among vertices, faces, and edges (such as Euler's Formula). (DOK 3)					
c. Draw, label, and classify polygons to include regular and irregular shapes. Identify congruent and symmetrical figures. (DOK 1)					
d. Identify, estimate, and compare right, acute, and obtuse angles. (DOK 1)					
e. Explain the relationships between corresponding parts of the pre-image and image of a dilation. (DOK 2)					
MEASUREMENT					
4. <i>Apply geometric formulas and standard (English and metric) units of measurement in mathematical and real-life situations.</i>					
a. Convert units within a given measurement system to solve problems. (DOK 1)					
b. Calculate the perimeter and area of regular and irregular shapes using a variety of methods. (DOK 2)					

c. Determine the radius, diameter, and circumference of a circle. (DOK 1)					
d. Use scale factors to perform dilations and to solve ratio and proportion problems. (DOK 2)					
e. Predict and calculate the volume of prisms. (DOK 2)					
f. Apply techniques and tools to accurately find length, area, and angle measures to appropriate levels of precision. (DOK 1)					
g. Explain the relationship of circumference of a circle to its diameter, linking to π . (DOK 1)					
DATA ANALYSIS & PROBABILITY					
<i>5. Organize, interpret, analyze, and display data to predict trends</i>					
a. Construct, interpret, and explain line graphs, double bar graphs, frequency plots, stem-and-leaf plots, histograms, and box-and-whisker plots. (DOK 2)					
b. Determine how changes in data affect mean, median, mode, and range. (DOK 2)					
c. Predict trends based on graphical representation. (DOK 3)					

