Teacher:_____ **School Year:**_____

Transition to Algebra Objective Sheet **Student:**_____

Objectives:	1	2	3	4	Comments:
NUMBER AND OPERATIONS					
1. Understand relationships between numbers and their properties and perform operations fluently.					
a. Compare and contrast the subsets of real numbers. (DOK 1)					
b. Simplify and evaluate expressions using order of operations and use real number properties to justify solutions. (DOK 2)					
c. Express, interpret, and compute numbers using scientific notation in meaningful contexts. (DOK 1)					
d. Apply the concept of Greatest Common Factor (GCF) and Least Common Multiple (LCM) to monomials with variables. (DOK 2)					
e. Use the inverse relationship to develop the concept of roots and perfect squares. (DOK 2)					
ALGEBRA					
2. Understand, represent, and analyze patterns, relations, and functions.					
a. Given a literal equation, solve for a specified variable of degree one. (DOK 1)					
b. Explain and illustrate how changes in one variable may result in a change in another variable. (DOK 2)					
c. Solve and check multi-step equations and inequalities, including distributive property, variables on both sides, and rational coefficients. (DOK 2)					

d. Use real-world data to express slope as a rate of change. (DOK 2)					
e. Graph solutions to linear inequalities. (DOK 2)					
f. Write linear equations given slope and y-intercept or two points. (DOK 2)					
g. Identify domain, range, slope, and intercepts of functions. (DOK 1)					
h. Develop generalizations to characterize the behaviors of graphs (linear, quadratic, and absolute value). (DOK 2)					
i. Classify and determine degree of a polynomial and arrange polynomials in ascending or descending order of a variable. (DOK 1)					
j. Apply ratios and use proportional reasoning to solve real-world algebraic problems. (DOK 2)					
k. Add, subtract, multiply, and divide polynomial expressions. (DOK 1)					
l. Analyze the relationship between x and y values, and determine whether a relation is a function. (DOK 2)					
GEOMETRY					
3. Understand geometric principles of polygons, angles, figures.					
a. Apply the Pythagorean Theorem to solve problems. (DOK 2)					
b. Apply proportional reasoning to determine similar figures and find unknown measures. (DOK 2)					
MEASUREMENT					
4. Demonstrate and apply various formulas in problem-solving situations.					

a. Solve real-world problems involving measurements (i.e., circumference, perimeter, area, volume, distance, temperature, etc.). (DOK 2)					
b. Explain and apply the appropriate formula to determine length, midpoint, and slope of a segment in a coordinate plane (i.e., distance formula, Pythagorean Theorem). (DOK 2)					
DATA ANALYSIS					
5. Interpret data.					
a. Construct graphs, make predictions, and draw conclusions from tables, line graphs, and scatter plots. (DOK 3)					
b. Use a given mean, mode, median, and range to summarize and compare data sets including investigation of the different effects that change in data have on these measures of central tendency, and select the appropriate measures of central tendency for a given purpose. (DOK 2)					
c. Calculate basic probability of experiments and simulations to make and test conjectures about results. (DOK 3)					