What is it that we expect all students to learn?

Grade: 8th	Subject: Pre-Algebra	Semester:	Team Members:			
Description of Standard	**Example of Rigor**	**Prerequisite Skills**	**When Taught?**	**Common Summative Assessment**	**Extension Standards**	**Non-Negotiable Instruction Strategies**
What is the essential standard to be learned? Describe it in student friendly vocabulary.	What does proficient student work look like? Provide an example and/or description.	What prior knowledge, skills, and/or vocabulary are needed for a student to master this standard?	When will this standard be taught?	What assessment(s) will be used to measure student mastery?	What will we do when students have already learned this standard?	What instructional strategies/tools will every teacher agree to use in order to promote consistency between classrooms and across grade levels?
8.EE.1 - Know and apply the properties of integer exponents to generate equivalent numerical expressions.	3^2 x 3^-5 = 3^-3 = 1/3^3 = 1/27	Multiplication and exponent rules	Chapter 4; Early to Late November; Early Q2	Chapter 4 Quiz 1 and Chapter 4 Test	Enrichment 4-1; Sumdog; Khan Academy	Understanding of a base and an exponent
8.EE.2 - Use square root to represent solutions to equations of the form x^2 = p, where p is a positive rational number. Evaluate square roots of small perfect squares.	x^2 = p; x^2 = 16; x = 4	Small perfect squares	Chapter 9; Can cover in Chapter 4 when coving exponents: Early to late November, Early Q2	Chapter 4 Quiz 1 and Chapter 4 Test	Enrichment 4-1; Enrichment 9-1; Sumdog; Khan Academy	Utilize a multiplication chart and understanding that square root and squaring a number are inverse operations
8.EE.5 - Graph proportional relationships, interpreting the unit rate as the slope of the graph. Compare two different proportional relationships represented in different ways.	Graph: cost of candy; $3.50 per pound; c = 3.50x; 3.50 is the unit rate	Graphing and solving proportional relationships	Chapter 6; March; Late Q3	Chapter 6 Quiz 1 and 2 and Chapter 6 Test	Enrichment 6-1 and 6-2; Sumdog; Khan Academy	Students have to understand the properties of a graph (x and y coordinates) and how to determine slope or rate of change.

8.EE.6 - Use similar triangles to explain why the slope "m" is the same between any two distinct points on a non-vertical line in the coordinate plane; derive the equation y=mx for a line through the origin and the equation y=mx+b for a line intercepting the vertical axis at "b".	Slope of 4c is the same as 4c +2	Congruent and similar figures	Chapter 6; March; Late Q3; Chapter 7	Chapter 6 Quiz 1 and Chapter 7 Quiz 2 and Chapters 6 and 7 Tests	Enrichment 6-1 and 7-3; Sumdog; and Khan Academy	Show multiple triangles on the same coordinate system with same slopes.
8.EE.7 - Solve linear equations in one variable.	4c+2 = 14; 4c = 12; c = 3	4 basic math operations and knowledge of coefficients and variables.	Chapter 3; Late October to early November; Late Q1 to early Q2	Chapter 3 Quiz 2 and Chapter 3 Test	Enrichment 3-3 through 3-5; Sumdog; Khan Academy	Work to get the variable by itself by always doing the inverse operation for each term.
8.F.1 - Understand that a function is a rule that assigns to each input exactly one input. The graph of a function is the set of ordered pairs consisting of an input and the corresponding output.	y = 4x+2; (x,y) (1,6) (2,10) (3,14)	Ability to write equations and generate one output from one specific input	Chapter 2; Early October; Mid Q1 (Input/Output); Chapter 7; Late April to early May; Early to mid Q4	Chapter 2 Quiz 4 and Chapter 2 Test	Enrichment 2-6 and 7-1; Sumdog; Khan Academy	Connect ordered pairs with a function and a graph.
8.F.2 - Understand that a function can be represented in each of the following ways (algebraically, graphically, numerically in tables, or by verbal descriptions).	y = 4x+2; graphing; listing inputs and outputs in a table; four times a number increased by two.	Ability to write equations, graphing on a coordinate system and creating a table	Chapter 7; Later April to early May: Early to mid Q4	Chapter 7 Quiz 1 and Chapter 7 Test	Enrichment 7-1 and 7-2; Sumdog; Khan Academy	Connect ordered pairs, a function and a graph as they are all ways of representing the same information.

8.F.4 - Construct a function to model a linear relationship between two quantities. Determine the rate of change and initial value of the function from a description of a relationship or from two (x,y) values, including reading these from a table or from a graph. Interpret the rate of change and initial value of a linear function in terms of the situation it models, and in terms of its graph or a table of values.	y = 4x+2; rate of change is 4 and the initial value is 2	Ability to write equations, graphing on a coordinate system and creating a table	Chapter 7; Later April to early May: Early to mid Q4	Chapter 7 Quiz 2, 3 and 4 and Chapter 7 Test	Enrichment 7-3; Sumdog; Khan Academy	Create a function based on looking at a table or graph. Teach students what each term in a function represents.