

Essential Standards Chart: What is it we expect students to learn?

Grade:	8th	Subject:	Math	Semester		Team Members:			
Standard Description		Example Rigor		Prerequisite Skills		Common Assessment		When Taught?	Extension Standards
What is the essential standard to be learned? Describe in student-friendly vocabulary.		What does proficient student work look like? Provide an example and/or description.		What prior knowledge, skills, and/or vocabulary is/are needed for a student to master this standard?		What assessment(s) will be used to measure student mastery?		When will this standard be taught? (Based on Savvas)	What will we do when students have learned the essential standard(s)?
8.EE.1 I can use exponent rules to simplify expressions Know and apply the properties of integer exponents to generate equivalent numerical expressions.						Mid-Unit Quiz Unit 1 Assessment		Unit 1 - September / early October	
8.EE.7b I can use inverse operations to solve multi-step equations. Solve linear equations with rational number coefficients, including equations whose solutions require expanding expressions using the distributive property and combining like terms.								Unit 2 Mid October - Mid November	



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<p>8.F4 I can use $y=mx+b$ to write the equation of a graph, table, or situation.</p> <p>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.</p>				Unit 3 & 4: Late November - Late January	
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Standard Description	Example Rigor	Prerequisite Skills	Common Assessment	When Taught?	Extension Standards
<p>8.F2</p> <p>I can compare the slopes and y-intercepts of two graphs, equations, or tables.</p> <p>Compare properties of two functions each represented in a different way (algebraically, graphically, numerically in tables, or by verbal descriptions).</p>				Unit 3: Late November - Mid December	



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<p>8.EE.5 (similar to 8.F.2) I can compare the slopes of two different graphs or equations.</p> <p>Graph proportional relationships, interpreting the unit rate as the slope of the graph. Compare two different proportional relationships represented in different ways. e.g., Compare a distance-time graph to a distance-time equation to determine which of two moving objects has greater speed.</p>				Unit 2: Early October - Mid November	
<p>8.F.1 I can identify if a set of ordered pairs or a graph is a function.</p> <p>Understand that a function is a rule that assigns to each input exactly one output. The graph of a function is the set of ordered pairs consisting of an input and the corresponding output.</p>				Unit 3: Late November - Mid December	
<p>8.F.3 I can identify linear and nonlinear equations, graphs, and tables.</p> <p>Interpret the equation $y = mx + b$ as defining a linear function, whose graph is a straight line. Recognize examples of functions that are linear and nonlinear.</p>				Unit 3 & 4: Late November - Late January	
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<p>SP.3 I can explain what the slope of an equation means in context of the problem.</p> <p>Use the equation of a linear model to solve problems in the context of bivariate measurement data, interpreting the slope and intercept. e.g., In a linear model for a biology experiment, interpret a slope of 1.5 cm/hr as meaning that an additional hour of sunlight each day is associated with an additional 1.5 cm in mature plant height.</p>				Unit 4: Mid December - Late January	
<p>8.G.9 I can use my formula sheet to calculate the volume of cones, cylinders, and spheres.</p> <p>Given the formulas for the volume of cones, cylinders, and spheres, solve mathematical and real-world problems.</p>				Unit 8: Early to Mid April	