

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

Grade:	9th	Subject:	Algebra 1	Semester: Fall 2017		Team Members:	Brad Gray	Danny Wiltz	Tracie Kinsey
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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?	What will we do when students have learned the essential standard(s)?				
NQ1: Use Units of measure as a way to understand problems.	Students will be able to determine the appropriate unit of measure (perimeter for fencing, area for flooring, etc)	vocabulary and prior knowledge of the difference in units of measure and appropriate formulas to calculate them	<ul style="list-style-type: none"> <li>Common questions on all assessments</li> <li>Benchmark assessment</li> <li>Common Quizzes</li> <li>Observations</li> <li>Weekly Homework</li> <li>Warm-up</li> </ul>	Unit 1	<ul style="list-style-type: none"> <li>DOK 3-4 problems</li> </ul>				
NQ2: Define appropriate quantities for the purpose of descriptive modeling. Students will use appropriate quantities for representing the situation.	Students will be able to analyse a problem and determine appropriate units to represent the situation	Knowledge of the metric and english systems of measurement. Knowledge of appropriate calculations (area, volume, etc)	<ul style="list-style-type: none"> <li>Common questions on all assessments</li> <li>Benchmark assessment</li> <li>Common Quizzes</li> <li>Observations</li> <li>Weekly Homework</li> <li>Warm-up</li> </ul>	Unit 1	<ul style="list-style-type: none"> <li>DOK 3-4 problems</li> </ul>				
CED 2: Create linear equations in two or more variable to represent relationships between quantities.	Given a word problem, students can gather the useful information, identify appropriate variables, and create an equation or function to represent the situation.	Ability to translate verbal statements into expressions, equations, or inequalities. Proficient skills of manipulating and solving equations.	<ul style="list-style-type: none"> <li>Common questions on all assessments</li> <li>Benchmark assessment</li> <li>Common Quizzes</li> <li>Observations</li> <li>Weekly Homework</li> <li>Warm-up</li> </ul>	Unit 2	<ul style="list-style-type: none"> <li>DOK 3-4 problems</li> </ul>				
SSE 3: Choose and produce an equivalent form of an expression to reveal and explain properties of the quantity represented by the expression.	Student will be able to solve linear equations, justifying each step with the specific algebraic property used.	Vocabulary related to algebraic properties. Knowledge of the steps involved in solving equations	<ul style="list-style-type: none"> <li>Common questions on all assessments</li> <li>Benchmark assessment</li> <li>Common Quizzes</li> <li>Observations</li> <li>Weekly Homework</li> <li>Warm-up</li> </ul>	Unit 1	<ul style="list-style-type: none"> <li>DOK 3-4 problems</li> </ul>				
REI 10: Understand that the graph of an equation in two variables is the set of all its solutions plotted in the coordinate plane.	Students will be able to analyse a graph to find specific values without algebraic calculations.	Knowledge of graphing lines and determining coordinates of specific points.	<ul style="list-style-type: none"> <li>Common questions on all assessments</li> <li>Benchmark assessment</li> <li>Common Quizzes</li> <li>Observations</li> <li>Weekly Homework</li> <li>Warm-up</li> </ul>	Unit 2	<ul style="list-style-type: none"> <li>DOK 3-4 problems</li> </ul>				

REI1: Use algebraic properties and the properties of real numbers, justify the steps of a simple one-solution equation.	Student will be able to solve linear equations, justifying each step with the specific algebraic property used.	Vocabulary related to algebraic properties. Knowledge of the steps involved in solving equations	<ul style="list-style-type: none"> <li>• Common questions on all assessments</li> <li>• Benchmark assessment</li> <li>• Common Quizzes</li> <li>• Observations</li> <li>• Weekly Homework</li> <li>• Warm-up</li> </ul>	Unit 1	<ul style="list-style-type: none"> <li>• DOK 3-4 problems</li> </ul>
FBF1: Write a function that describes a relationship between two quantities.	Given a specific scenario, students will be able to identify the dependent and independent variables and create an expression to model the situation	<p>Knowledge of functions (definition, vocabulary, and evaluating)</p> <p>Proficient ability to translate expressions</p>	<ul style="list-style-type: none"> <li>• Common questions on all assessments</li> <li>• Benchmark assessment</li> <li>• Common Quizzes</li> <li>• Observations</li> <li>• Weekly Homework</li> <li>• Warm-up</li> </ul>	Unit 2	<ul style="list-style-type: none"> <li>• DOK 3-4 problems</li> </ul>
FIF1: Understand that a function from one asset sent to another asset assigns to each element of the domain exactly; one element of the range each input value maps to exactly one output value	Students will be able to analyse charts, graphs, tables, etc to determine if the relation is a function.	All vocabulary dealing with functions (domain, range, input, output, etc)	<ul style="list-style-type: none"> <li>• Common questions on all assessments</li> <li>• Benchmark assessment</li> <li>• Common Quizzes</li> <li>• Observations</li> <li>• Weekly Homework</li> <li>• Warm-up</li> </ul>	Unit 2	<ul style="list-style-type: none"> <li>• DOK 3-4 problems</li> </ul>
				<ul style="list-style-type: none"> <li>• Since this is for 3 classes that move at different paces, this is the order in which they will be taught</li> </ul>	