Foundations of Algebra Unit One Plan by Prioritized Standards

Content Area	Math
Grade/Course	9th Foundations of Algebra
Unit of Study	Number Sense and Quantity - Module 1
Duration of Unit	34 days

Insert priority standards below (include code). **CIRCLE or Highlight** the **SKILLS** that students need to be able to do and **UNDERLINE** the **CONCEPTS** that students need to know. **(address "supporting" standards in daily lesson plans)**

MFANSQ1a - Solve multi-step real world problems, analyzing the relationships between all four operations.
MFANSQ2c - Explain meanings of real numbers in a real world context.
MFANSQ4b - Find sums, differences, products, and quotients of all forms of rational numbers, stressing the conceptual understanding of these operations.
MFANSQ4e - Solve multi-step real-life and mathematical problems posed with positive and negative rational numbers in any form (whole numbers, fractions, and decimals), using estimation strategies and graphing technology.

Skills (what must be able to do)	**Concepts** (what students need to know)	**DOK Level / Bloom's**
Solve	Multi-step word problems	1
Analyze	Relationships between operations	2
Explain	Meanings of real numbers in a real world context	3
Find	Sums, differences, products and quotients of all forms of rational numbers	1
Use	Estimation strategies	2

Step 5: Determine BIG Ideas (enduring understandings students will remember long after the unit of study)	**Step 6: Write Essential Questions** (these guide instruction and assessment for all tasks. The big ideas are answers to the essential questions)
Perform the four basic mathematical operations with ease. Represent a number in a variety of ways Solve real world problems using a variety of strategies. Determine the fractional amount of a given set and determine the entire set when given a fractional amount of the set. Find equivalent fraction. Multiply and divide by a power of ten.	How can you mentally compute mathematical operations? How are multiplication and division related? How can you model multiplication of whole numbers, fractions, decimals (base ten) and integers? What does it mean to take the fraction portion of a whole number? How do you solve a multi-step problem? How do you compare decimals or decimals and fractions?

Identify the placement of integers on the number line. Understand and use positive and negative numbers in real world context. Identify rational and irrational numbers. Estimate the square root of a number using the number line or colored tiles.	How can you represent integers on the number line? How can you use the number line to add/subtract/multiply integers? How can you identify rational and irrational numbers? How can you estimate the square root of a number?
Essential Unit Vocabulary	
Digit • Array • Fact Family • Sum • Difference • Place Value • Line Diagram • Inverse Operation Factors • Product • Quotient • Divisor • Dividend • Fraction • Numerator • Denominator Area Model • Power of Ten • Place Value • Benchmark Fraction • Integer • Zero Opposite of a Number • Rational Number • Irrational Number • Approximation	
Next step, create assessments and engaging learning experiences	