

Topic: Revisiting Numbers

Days: 25
Grade(s):

Subject(s):

Key Learning: *Understand the structure of the base ten # system

*Understand the various rules and procedures of real numbers



Unit Essential Question(s):

How is the base ten number system structured?**What are the rules and procedures that govern real numbers?****Concept:
Number Sense**

- Connects background knowledge to ratio tables and unit rate
- Expands on unit rate to make more difficult conversions
- Leads to exponential notation in base ten
- Leads to scientific notation of large numbers and small numbers

- *Use a ratio table to calculate average speed
- *Calculate unit rate
- *Convert base ten numbers to exponential notation
- *Write numbers in scientific notation

**Concept:
Number Theory**

- Builds upon knowledge of operations in order to create various strategies for multiplication and division
- Structures rules and procedures into formal properties
- *Use an appropriate method to multiply and/or divide
- *Analyze methods for effectiveness and efficiency
- *Know integer rules (positive & negative)
- *Know and use commutative, distributive and associative properties

**Concept:
Number System**

- Connects to knowledge of integers
- Extends to all subsets of real numbers
- *Inverse operations
- *Identify irrational and rational numbers

**Lesson Essential Question(s):**

How can you use proportional reasoning strategies to make calculations? (A)

What is scientific notation and how it is used? (A)

How are values affected by operations of various base ten numbers? (A)

Lesson Essential Question(s):

Why is a given strategy the most effective method when solving a multiplication or a division problem? (A)

(A)

Lesson Essential Question(s):

How do rational and irrational numbers relate to the number system?

(Irrational numbers can't be written as a fraction, while rational numbers can. Together they make up the real numbers which are a part of the number system.) (A)

**Vocabulary:**

- Average Speed
- , Mantissa, Rate
- , Scientific Notation
- , Conversion, Base ten
- , Exponent, Base

Vocabulary:

- algorithm
- , area model
- , whole number
- , mixed number
- , commutative property
- , distributive property
- , associative property

Vocabulary:

- rational number
- , irrational number
- , real number
- , natural number
- , counting number
- , whole number
- , integer, inverse

Additional Information:**Attached Document(s):**

Vocab Report for Topic: Revisiting Numbers
Subject(s):

Days: 25
Grade(s):

Concept: Number Sense

Average Speed

- Mantissa -

Rate

- Scientific Notation

- Conversion -

Base ten

- Exponent -

Base -

Concept: Number Theory

algorithm

- area model

- whole number

- mixed number

- commutative property

- distributive property

- associative property

-

Concept: Number System

rational number

- irrational number

- real number

- natural number

- counting number

- whole number

- integer -

inverse