

Grade 6 Topic 01 - Numeration

Content Area: **Mathematics**
Course(s):
Time Period: **Week1**
Length: **1 Week**
Status: **Published**

Stage 1: Desired Results

Unit Overview/ Rationale

Standards & Indicators

MA.6.6.EE.A.1

Write and evaluate numerical expressions involving whole-number exponents.

MA.6.6.NS.B.3

Fluently add, subtract, multiply, and divide multi-digit decimals using the standard algorithm for each operation.

Big Ideas - Students will understand that...

The Base-Ten Numeration System – The base ten numeration system is a scheme for recording numbers using digits 0-9, groups of ten, and place value.

Number Uses, Classification, and Representation - Numbers can be used for different purposes, and numbers can be classified and represented in different ways.

Equivalence – Any number, measure, numerical expression, algebraic expression, or equation can be represented in an infinite number of ways that have the same value.

Comparison and Relationships – Numbers, expressions, measures, and objects can be compared and related to other numbers, expressions, measures, and objects in different ways.

Solving Equations and Inequalities – Rules of arithmetic and algebra can be used together with notions of equivalence to transform equations and inequalities so solutions can be found.

Patterns, Relations and Functions – Relationships can be described and generalizations made for mathematical situations that have numbers or objects that repeat in predictable ways. For some relationships, mathematical expressions and equations can be used to describe how members of one set are related to members of a second set.

Practices, Processes and Proficiencies – Mathematics content and practices can be applied to solve problems.

Essential Questions - What provocative questions will foster inquiry and transfer of learning

What are whole number and decimal place values?

How can whole numbers and decimals be written, compared, and ordered?

Content - Students will know...

Write numerical expressions with exponents.

Evaluate numerical expressions with exponents.

Skills - Students will be able to...

Read and write numbers to trillions in standard, expanded, and word form, and give the values of specified digits.

Use place value to compare and order whole numbers.

Write powers as products and evaluate, write expressions in exponential form, and write numbers in expanded form using exponents.

Stage 2: Assessment Evidence

Assessment

Stage 3: Learning Plan

Learning Activities

Students use place-value chart to help them read a number in the billions.

Resources

Trillions Place Chart