7th Grade Accelerated - Unit 1 Number System

Content Area: **Mathematics**
Course(s): **Math 6, Generic Course**
Time Period: **Generic Time Period**
Length: **22 Days**
Status: **Published**

Established Goals/Standards

Please choose the appropriate Goals/Standards from the Standards tab above.

MA.7.NS	The Number System
MA.7.NS.A	Apply and extend previous understandings of operations with fractions to add, subtract, multiply, and divide rational numbers.
MA.7.NS.A.1	Apply and extend previous understandings of addition and subtraction to add and subtract rational numbers; represent addition and subtraction on a horizontal or vertical number line diagram.
MA.7.NS.A.1a	Describe situations in which opposite quantities combine to make 0.
MA.7.NS.A.1b	Understand $p + q$ as the number located a distance $\|q\|$ from p, in the positive or negative direction depending on whether q is positive or negative. Show that a number and its opposite have a sum of 0 (are additive inverses). Interpret sums of rational numbers by describing real-world contexts.
MA.7.NS.A.1c	Understand subtraction of rational numbers as adding the additive inverse, $p – q = p + (–q)$. Show that the distance between two rational numbers on the number line is the absolute value of their difference, and apply this principle in real-world contexts.
MA.7.NS.A.1d	Apply properties of operations as strategies to add and subtract rational numbers.
MA.7.NS.A.2	Apply and extend previous understandings of multiplication and division and of fractions to multiply and divide rational numbers.
MA.7.NS.A.2a	Understand that multiplication is extended from fractions to rational numbers by requiring that operations continue to satisfy the properties of operations, particularly the distributive property, leading to products such as (–1)(–1) = 1 and the rules for multiplying signed numbers. Interpret products of rational numbers by describing real-world contexts.
MA.7.NS.A.2b	Understand that integers can be divided, provided that the divisor is not zero, and every quotient of integers (with non-zero divisor) is a rational number.If p and q are integers, then $–(p/q) = (–p)/q = p/(–q)$. Interpret quotients of rational numbers by describing real-world contexts.
MA.7.NS.A.2c	Apply properties of operations as strategies to multiply and divide rational numbers.
MA.7.NS.A.2d	Convert a rational number to a decimal using long division; know that the decimal form of a rational number terminates in 0s or eventually repeats.
MA.7.NS.A.3	Solve real-world and mathematical problems involving the four operations with rational numbers.

Essential Questions

Please add your Essential Questions by clicking on the Lists tab above.

- How are sums, differences, products, and quotients of rational numbers estimated and found?
- How can rational numbers be represented in different forms?

- How can you compare and order rational numbers?

Enduring Understanding

Please add your Enduring Understandings by clicking on the Lists tab above.

- Rational numbers can be compared by, graphing them on a number line, and converting into like forms.
- Rational numbers can be converted from fractions and decimals and vice versa.
- Students will be able to extend upon their prior knowledge of numerical operations when negatives are involved.

Content

Students will be able to:

- Compare and order integers
- Add and subtract integers and to solve real life problems involving integers
- Multiply and divide integers and to solve real life problems involving integers
- Convert between fractions and decimals
- Compare and order rational numbers
- Add and subtract rational numbers and solve real life problems
- Multiply and divide rational numbers and solve real life problems involving rational numbers

Vocabulary list:

- additive inverse
- integers
- opposites
- rational number
- repeating decimal
- terminating decimal
- absolute value
- irrational number

Assessments

Resources

- Pearson textbook and online resources

- Teacher made flip-charts
- Web-based activities (mathplayground.com) (coolmath.com)
- Teacher made worksheets/assessments
- mad minutes
- NJCTL.org (PMI math)
- Pizzazz series of worksheets