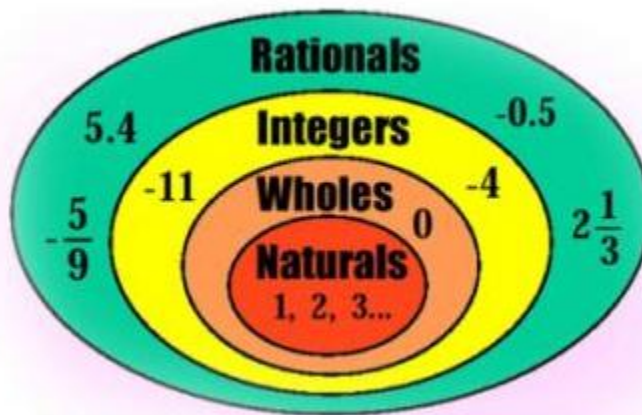


Number and Quantity



This first unit 6th grade will focus on extending previous understandings of performing mathematical operations on whole numbers, decimals, and fractions. We will learn about the number system and how to classify numbers. Our focus will be on developing understanding of mathematical operations and how to perform and use them to solve real life problems

Unit Priority Standards

- Apply and extend previous understandings of operations using fractions.
- Compute fluently multi-digit numbers and find common factors and multiples
- Apply and extend previous understandings of numbers to the system of rational numbers.

Unit Transfer Goals

- Apply mathematics to problems that arise in everyday life, society and the workplace.
- Display, explain, and justify mathematical ideas and arguments using precise mathematical language in written or oral communication

Unit Essential questions	
1. What is the role of the number system in mathematics? 2. How can estimating be useful? 3. How are fractions, decimals, and percentages related?	
Acquisition of Knowledge Skill	
<i>Students will know...</i> 1. Understandings the use of operations using fractions 2. Understand the role of the number system 3. Understand how to use the cartesian plane to plot coordinate points 4. The way we can conduct operations on fractions	<i>Students will be skilled at...I can...</i> 1. All operations with fractions 2. Use the standard algorithm to complete long division involving decimals. 3. Use four quadrants of the cartesian plane to graph coordinate points. 4. Add, subtract, multiply and divide decimals

Unit Plan

Week 1: Dates Aug 23-26th	Does order matter?
Learning Target(s):	L1: Focus on classroom expectations, introductions, unit discussion, resources, grade breakdown. Math survey to be completed by next week L2: Reviewing PEMDAS and multi-digit multiplication and addition L3: Reviewing fractional operations
Acquired Knowledge:	Use order of operations to complete operations with whole multi digit numbers Strategies to find common denominators
Skills, Activities, Due Dates and Assessments:	Activities: Review exercises to be completed in class Due Dates: -Introductory math survey due L1 of Week 2

Week 2: Dates: August 30th - Sept 3rd	What's the deal with decimals? How does estimating help?
Learning Target(s):	L1: Add and Subtract Decimals, L2: Estimate Products L3: Decimal Multiplication
Acquired Knowledge:	Estimate products of decimals to compare with the actual product and check for Reasonability. Find the sum and difference of decimals Estimate product of decimals Multiply decimals

Skills, Activities, Due Dates and Assessments:	Activities: Pedmas poster Due Dates: Weekly homework #1 Due First lesson L1 of Week 3:
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Week 3: Dates: Sept 6th - Sept 10th	How is estimation useful in real life?
Learning Target(s):	L1: Decimal questions in real world context L2: Decimal quotient and estimation L3: Introduce decimal project
Acquired Knowledge:	Estimate quotients of decimals to compare with the actual quotient and check for Reasonability. Estimate quotient of decimals Divide decimals
Skills, Activities, Due Dates and Assessments:	Due Dates: Weekly homework #2 Due L1 of Week 4: Decimal Project due L3 of Week 4 Summative Assessment: Decimal question creation: Students will come up with four real life scenarios involving decimals that will involve each of the operations. Due last lesson of Week 4

Week 4: Dates: Sept 13-17	What does it mean to multiply and divide fractions?
Learning Target(s):	L1: Multiplying fractions and estimating products L2: Converting from mixed number to improper fractions L3 Multiply and divide whole numbers, mixed numbers and improper fractions
Acquired Knowledge:	A solid understanding of what it means to multiply and divide fractions Estimate products of fractions Multiply fractions and whole numbers Multiply fractions Multiply mixed numbers
Skills, Activities, Due Dates and Assessments:	Activities: Fraction card game Assessment: Due Dates: Weekly homework #3 Due L1 of Week 5:

Week 5: Dates: Sept 20-24 (Chuseok Break 20-23, only school on 24/24)	What does it mean to multiply and divide fractions?
Learning Target(s):	L1/L2: All fractional operations
Acquired Knowledge:	Divide mixed numbers fractions Complete and wrap up any holes in understanding of fractions
Skills,	

Activities, Due Dates and Assessments:	Activity: Illustrative math fraction task Due date: Weekly homework #4 due L1 of Week 6 Summative: Quiz on fractional operations on L2
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Week 6: Dates: Sept 27th- October 1st	Converting and understanding the link between fractions, decimals and percentages
Learning Target(s):	L1: Converting fractions to decimals L2: Introduce the idea of a percentage L3: Converting decimals to fractions to percentages
Acquired Knowledge:	-Converting decimals to fractions to percentages -Estimating percentages -Tricks for converting percentages
Skills, Activities, Due Dates and Assessments:	Activities: Due dates: Weekly homework #5 due Week 7 L1

Week 7: Dates: October 4-8th	How are integers and absolute value used in real-world situations? Integers and the cartesian plane
Learning Target(s):	L1: Integer definition, number line and ordering rational numbers using symbols L2: Write fractions as terminating or repeating decimals L3: Introduce My life as an integer project
Acquired Knowledge:	Write fractions as terminating or repeating decimals Compare and order rational numbers using $<$, $>$, or $=$ Graph on the coordinate plane

Skills, Activities, Due Dates and Assessments:	Activities: Due dates: Weekly homework 6 due L1 of Week 8 My life as an integer project due end of Week 8 L3 Summative: My life as an integer project

Week 8: Dates: October 11-15 (11th off for Hangul day)	How are integers and absolute value used in real-world situations? Integers and the number system and unit wrap up
Learning Target(s):	L1: Solve real-world problems by applying understandings of integers and the coordinate plane. L2: Time to work on project L3:
Acquired Knowledge:	Applying knowledge of integers and coordinate plane to solve and reason about real life situations
Skills, Activities, Due Dates and Assessments:	Activities: Underwater integer activity Due Dates: My life as an integer project due L3 Portfolio due end of Week 9

Assessment Details

Evidence	
I will check students' understanding throughout the unit by...	
Summative Mini Project 1: Decimal Question - Students will use the four operations to come up with their own decimal number questions using real life contexts. They will exchange these with a partner and offer peer-feedback. They will also engage in a reflection of their learning. Decimal Rubric Mini Project 2: My life as an integer timeline project - Students will create a timeline using integers as the focus. Their birthdate will be set as 0 and they will select 10 events that happened prior to their birth and 10 after. They will calculate the integer number based on the zero start. Project description Rubric for my life in integers Mid unit Quiz week 5	Formative Daily warm up questions - Daily bell ringer questions will be used as a way to review and go over previous lessons content. This will act as formative Weekly homework (self grading in class) - Weekly homework will be assigned and corrected on the first day of each week. They will have one week to complete it. Illustrative math performance tasks - Illustrative math offers questions that allow students to think outside the box and use their mathematical skills to reason and solve complex real life situations involving the content at stake.

