Grade 4 Elementary Mathematics

Purpose of the Document: This document provides an overview of mathematics focus for students in grade 4. The information provided below is designed to support students, parents, and the school community to understand the major content of the course and the standards used to design it. To support the needs of students, teachers may make adjustments as needed. Please contact your child's teacher for additional information.

Program Vision: We strive to provide equitable access to *ALL* students to develop a foundational understanding of whole numbers, operations, geometry, measurement, fractions, and decimals.

Program Mission: Our mission is to develop the student's ability to think and reason mathematically using the standards of mathematical practices and to develop mathematical proficiency for *ALL* students so they can apply mathematics to real-world situations. We do this by providing quality mathematical learning experiences that are aligned with rigorous standards.

Course Description: Grade 4 Mathematics begins the year exploring numbers to one million. During the start of the year, they will compare and round whole numbers and continue to use their knowledge of place value to perform multi-digit arithmetic. Students will use all four operations with whole numbers to solve problems and then transition to fractions where they will extend their understanding of equivalent fractions and comparing and ordering fractions through the use of area models and number lines. Fourth grade math will dive more deeply into adding and subtracting fractions as well as extending the concept of multiplying fractions. Students will end the year interpreting data , comparing decimals, and working with lines, angles and shapes.

Topics at-a-Glance	
Marking Period 1 ● Using place value understandings with larger number to compare and round numbers ● Fluently add and subtract Multi-digit whole numbers ● Use strategies to multiply by 1 digit numbers then to 2 digit numbers	**Marking Period 2** ● Use operations with whole numbers to solve comparison and multi step word problems. ● Understand factors and multiples and prime and composite numbers ● Begin fraction equivalence and ordering

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Marking Period 3	**Marking Period 4**
● Fraction equivalence and ordering ● Addition and subtraction of fractions ● Multiplication concepts to fractions ● Represent and interpret data on line plots ● Understand and compare decimals	● Measure and find equivalence in units of measure ● Generate a number or shape pattern that follows a given rule, such as "add 3" ● Understand concepts of angles and angle measurement ● Lines angles and shapes

Standards

- MP 1: Generalize place value understanding for multi- digit whole numbers. Use place value understanding and properties of operations to perform multi-digit arithmetic
- MP 2: Use place value understanding and properties of operations to perform multi-digit arithmetic. Use the four operations with whole numbers to solve problems. Gain familiarity with factors and multiples. Extend understanding of fraction equivalence and ordering.
- MP 3: Extend understanding of fraction equivalence and ordering. Build fractions from unit fractions by applying and extending previous understandings of operations on whole numbers. Represent and interpret data. Understand decimal notation for fractions, and compare decimal fractions.
- MP 4: Solve problems involving measurement and conversion of measurements from a larger unit to a smaller unit. Generate and analyze patterns. Understand concepts of angle and measure angles. Draw and identify lines and angles, and classify shapes by properties of their lines and angles.

Grading

- Formative Assignments- 3 per MP
- Comprehensive Assessments 1 per MP
- Writing task 1 per MP

Resources

- envision Math 2020

Home and School Connection

- Reinforce mathematics by sharing your thinking through real problems, especially if it takes time and effort
- Use everyday activities such as cooking and measuring to apply their understanding of fractions
- Talk to your child about how we use math in our everyday lives

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- Play math games and ask them to explain their strategies
- Encourage perseverance
- Explore perimeter and area using addition, subtraction, multiplication and division.
- For examples of models used in the classroom as well as narrative descriptions of each marking period, please access this link.