Curriculum Parent Overview (Grade 4)

MATHEMATICS

UNIT #5: LARGE NUMBERS AND LANDMARKS (ADDITION, SUBTRACTION, AND THE NUMBER SYSTEM)

CONTENT FOCUS:
Students study place value and the operations of addition and subtraction as they solve problems fluently. They compare different types of addition and subtraction strategies, including the U.S. standard algorithm. Students extend their understanding of place value to one million, and use what they know about place value and the operations to solve addition and subtraction problems involving 4- and 5-digit numbers.

UNIT FOCUS:
- Extending knowledge of the number system to 1,000,000:   An important part of students' mathematical work in the elementary grades is building an understanding of the base-10 number system. This unit provides activities that develop knowledge about important landmarks in that system - numbers that are familiar landing places, that make for simple calculations, and to which other numbers can be related. Because our number system is based on powers of 10, the numbers 100, 1,000, and 10,000, as well as their multiples, are especially important landmarks. Students will develop a sense of the magnitude and relationships of these numbers.
- Adding and subtracting fluently: Throughout the unit, students solve addition and subtraction problems presented in contexts, such as travel measured in miles or kilometers, or as numerical problems. Students solve a variety of types of addition and subtraction problems in context. This unit introduces students to the U.S. standard algorithms for addition and subtraction.
- Describing, analyzing and comparing strategies for adding and subtracting whole numbers: Students have worked on addition and subtraction for several grades. Grade 4 students delve more deeply into the properties and behavior of these operations. Students describe and compare addition and subtraction strategies by focusing on the first steps of these methods. They also study *why* certain addition expressions are equivalent and *how* certain expressions in subtraction are related.

MATHEMATICAL PRACTICES:
MP7: Look for and make use of structure.
MP5: Use appropriate tools strategically.

CONNECTIONS TO PREVIOUS CONTENT:
This unit builds on the work students have done in Grade 3 on addition and subtraction, as they extended their ideas about place value and the operations of addition and subtraction. It is expected that most students are able to fluently solve addition and subtraction problems within 1,000.

CONNECTIONS TO FUTURE CONTENT:
Students will continue to practice addition and subtraction through Ten-Minute Math activities, practice pages, and homework throughout the rest of the year and Grade 5. In the next unit and in Grade 5, students will apply their knowledge of the operations of addition and subtraction to fractions and decimals.

MATH AT HOME:
- Look for large numbers in the newspaper, on packages, on signs, and around your home and neighborhood. Talk about the numbers. You might ask, "How much would the car cost if the salesperson offered a $2,000 discount? $2,500 discount?"
- Review the Math Words and Ideas videos for this unit on SavvasRealize site.