Curriculum Parent Overview - Unit 5 (Grade 3)

MATHEMATICS

UNIT #5: CUBE PATTERNS, ARRAYS, AND MULTIPLES OF 10 (MULTIPLICATION AND DIVISION 2)

CONTENT FOCUS:
This is the second unit that focuses on multiplication and division in Grade 3. This unit focuses on the meaning and structure of multiplication and division and the relationship between them, solving multiplication and division problems, multiplying by multiples of 10, and learning the remaining multiplication facts to 10 x 10.

UNIT FOCUS:
- Understanding the meaning/structure of multiplication and division and the relationship between them: Students continue the work they began in unit 1 to make sense of multiplication and division . Through visualizing multiplication and division with physical models, arrays, and story contexts, they deepen their understanding of the properties and behaviors of these operations as well as the inverse relationship between the two operations.
- Solving multiplication and division problems: As students continue to develop their understanding of the meaning, structure, and properties of multiplication, they use that developing understanding to solve multiplication and division problems. They learn to focus on the structure and properties of multiplication and division as they solve problems.
- Making sense of multiplying multiples of 10: Students work on problems that involve multiplying multiples of 10 by one-digit numbers. Grade 3 students quickly notice the pattern of what happens with the numerals when a multiple of 10 is multiplied by some number - that they can multiply the non-zero numerals of the factors and then put a 0 on the end, which they often express as "add a zero."
- Learning multiplication facts: Students focus on identifying the multiplication facts they need to learn through 10 x 10 by sorting them into those they already know and those they are still working on.

MATHEMATICAL PRACTICES:
MP2: Reason abstractly and quantitatively.
MP7: Look for and make use of structure.

CONNECTIONS TO PREVIOUS CONTENT:
This unit builds on the multiplication/division work Grade 3 students have done in Unit 1, which began their formal work with multiplication and division. Students developed an understanding of multiplication and division as equal groups and began using that understanding to solve multiplication and division problems with numbers less than 100. They also worked with an array model for multiplication. The work in this unit assumes students have experience solving multiplication and division problems using multiplication and division notation. It is expected that students are able to represent both multiplication and and division situations in a variety of ways, including arrays, story contexts, and pictures or models of groups and that most students are fluent with the multiplication facts through 10 x 10.

CONNECTIONS TO FUTURE CONTENT:

Students continue studying the properties of operations and developing strategies for solving multiplication and division problems in Unit 8, the fifth Grade 3 Number and Operations unit. This work includes further developing their understanding of the distributed property and examining the effect of multiplying a single-digit number by a multiple of 10. In Grades 4 and 5, they apply multiplication and division strategies to larger numbers and become fluent in solving those problems. In Grade 5, they extend their understanding of place value, multiplication, and division to work with decimals.

MATH AT HOME:

- Play any of the following games with your child on Pearson Site after it has been introduced in the classroom:
    - Factor Pairs
    - Missing Factors
    - Multiplication Compare
- Visit Investigations Math At-Home for ideas
- Review the Math Words and Ideas videos for this unit on Pearson Site