# Curriculum Parent Overview - Unit 8 (Grade 3)

## MATHEMATICS

### UNIT #8: LARGER NUMBERS AND MULTI-STEP PROBLEMS (MULTIPLICATION AND DIVISION 3)

**CONTENT FOCUS:**

This unit develops students' ideas about counting and quantity, place value and the structure of the base-ten number system, the meaning of operations with whole numbers, the development of computational fluency, and generalizations about numbers and operations. In this unit, these ideas developed through activities that focus on solving multiplication and division problems (2-digits by 1-digit), learning the division facts, identifying arithmetic patterns, and solving multi-step problems.

**UNIT FOCUS:**

- Solving multiplication problems: Students continue to develop their understanding of the meaning, structure, and properties of multiplication as they solve 2-digit by 1-digit multiplication problems. Students use arrays diagrams, story contexts, and other math tools to deepen their understanding of the properties of multiplication and how they can use those properties to solve problems.
- Solving division problems: Just as with multiplication, solving division problems requires grounding in images of division. Students use diagrams, story contexts, and other math tools to deepen their understanding of division. Students extend the strategies they use for division facts to problems that result in a 2-digit quotient.
- Learning division facts: Learning division facts is closely tied to students' knowledge of the multiplication facts and provides a further opportunity for students to use and practice the multiplication facts. STudents are expected to develop fluency with these facts by the end of the unit.
- Identifying patterns and solving multi-step problems: Students solve word problems that involve two operations. Students represent multi-step problems using pictures, diagrams, and equations.

**MATHEMATICAL PRACTICES:**

MP6: Attend to precision.

MP8: Look for and express regularity in repeated reasoning.

**CONNECTIONS TO PREVIOUS CONTENT:**

This unit builds on the work students have done in Unit 5, where students continued to develop their understanding of the meaning, structure, and properties of multiplication and dvision. They worked on learning the remaining multiplication facts and were assessed on those facts. They continued to develop strategies for solving division problems , focusing on using the relationship between multiplication and division. They work on multiplying and dividing by multiples of ten and on understanding the effect of multiplying a single-digit number by a multiple of 10. They also solved multi-step problems involving more than one operation. The work in this unit assumes students know the multiplication facts, can solve multiplication and division problems within 100, and can multiply a single-digit number by a multiple of 10 (to 90).

**CONNECTIONS TO FUTURE CONTENT:**

In Grade 4, students continue to develop strategies for solving multiplication and division problems with larger numbers including 2-digit by 2-digit problems and 4-digit by 1-digit problems. They solve a variety of multiplication and division word problems including a new type of problem: multiplicative comparison problems. They develop their understanding of the relationships between numbers and their factors and multiples in order to use these relationships to solve multiplications and division problems.

**MATH AT HOME:**

- Visit Investigations Math At-Home for ideas
- Review the Math Words and Ideas videos for this unit on Pearson Site