

Unit 6

Family Letter

Florida Reveal
MATH[®]

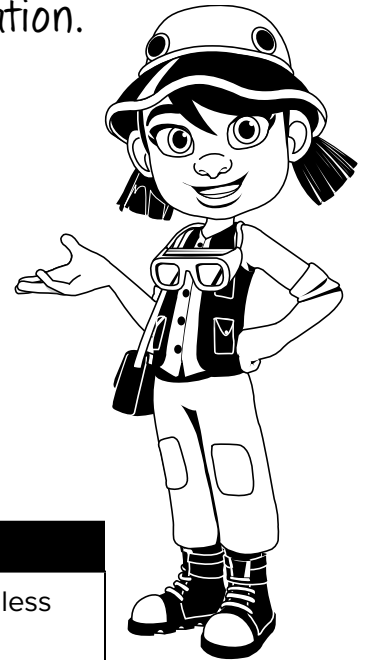
Dear Family,

In this unit, Multiply Multi-Digit Numbers with Decimals, your child will use representations and patterns to multiply whole numbers by decimals and decimals by decimals. They will also estimate products and solve problems involving money and multiplication.

STEM Career Kid for this Unit

Hi, I'm Maya.

I want to be a geologist. I will use math in my job when I find the weight of boulders. I'll show students how I will multiply with decimals in my work.



What math terms will your child use?

| Term | Student Understanding |
|------------------|--|
| decimal | a number or part of a number that represents a value less than 1 |
| partial products | numbers that represent a portion of the product of two numbers; add partial products to find the product |
| pattern | something that is arranged to follow a rule |
| range | two numbers between which you expect the product to be |



What can your child do at home?

Help your child develop fluency with the steps used to multiply numbers. Students will learn that multiplying decimals is similar to multiplying whole numbers. Practice multiplying whole numbers at home with your child. Have your child teach you how to find the products of whole numbers.

What Will Students Learn in This Unit?

Estimating Decimal Products

Your child will learn how to estimate the product of two decimals. Before solving a problem, an estimate can be made that can later be used to check the reasonableness of an answer. The calculations below show how to find a range of reasonable answers for 9.4×6.2 .

$$\begin{array}{c} 9.4 \times 6.2 = 58.28 \\ \swarrow \quad \searrow \\ 9 \times 6 = 54 \quad 10 \times 7 = 70 \end{array}$$

An estimate for the product is between 54 and 70. The product, 58.28, is a reasonable answer because it is between 54 and 70.

Using Patterns to Multiply Decimals

Your child will use patterns to make generalizations about multiplying decimals. Students will learn how to use the solution from one multiplication equation to solve other related equations. In the equations below, the first factor and the second factor in all three equations have the same digits. The products are related by a power of 10.

Example:

$$5.1 \times 1 = 5.1$$

$$5.1 \times 0.1 = 0.51$$

$$5.1 \times 0.01 = 0.051$$

Exploring Multiplication of Decimals

Use a decimal grid to multiply 0.9×0.6 . The product is the double-shaded area.

