## Unit 7 <br> Family Letter

## Dear Family,

In this unit, Divide Multi-Digit Whole Numbers, your child will learn to relate multiplication and division, estimate quotients, and divide 4-digit whole numbers by 2 -digit whole numbers.

## STEM Career Kid for this Unit

## Hi, I'm Grace.

I want to be a computer programmer. I will use math in my job when I find how many pages are needed to hold all of the lines of computer code. I'll show students how I can divide whole numbers and interpret remainders.

## What math terms will your child use?

| Term | Student Understanding |
| :--- | :--- |
| compatible <br> numbers | numbers near the dividend and the divisor that are used to <br> estimate quotients |
| partial <br> quotients | strategy for using multiplication to help find the quotient of <br> two numbers |
| quotient | result of a division problem |

## What can your child do at home?

Help your child develop fluency with an algorithm used to divide numbers. Students will learn that division is related to multiplication. Practice finding compatible numbers in order to estimate a quotient. Point out situations in which a remainder has to be interpreted. Have your child teach you how to use a partial quotients algorithm to divide.

## What Will Students Learn in This Unit? <br> Use a Related Multiplication Equation or Compatible Numbers to Estimate a Quotient

Your child will learn how to estimate a quotient.
Estimate the quotient 2,978 $\div 46$.
Write a related multiplication equation.
$2,978 \div 46=n$
$n \times 46=2,978$
Use compatible numbers.
$60 \times 50=3,000$
$70 \times 40=2,800$
The quotient is between 60 and 70 .

## Divide Multi-Digit Whole Numbers

Your child will learn how to use the partial quotients strategy or an algorithm to divide whole numbers. Find the quotient of $3,120 \div 65$.

| $6 5 \longdiv { 3 , 1 2 0 }$ | 40 | $3,120 \div 65=48$ | 48 |
| :---: | :---: | :---: | :---: |
| -2,600 |  |  | $6 5 \longdiv { 3 , 1 2 0 }$ |
| -325 | 5 |  | -2,60 |
| 195 |  |  | 520 |
| -195 | 3 |  | -520 |
| 0 |  |  | 0 |

## Interpret Remainders in Division

Your child will learn how to interpret the remainder in the context of a problem in order to answer the question.

A shipping carton can hold up to 36 items. How many cartons are needed to ship 2,500 items?

To solve, find $2,500 \div 36$.

| $\begin{array}{r} 3 6 \longdiv { 2 , 5 0 0 } \\ -2,160 \end{array}$ | 60 |
| :---: | :---: |
| 340 |  |
| - 180 | 5 |
| 160 |  |
| - 144 | 4 |
| 16 |  |

The division shows that the quotient is 69 and the remainder is 16 .

So there will be 69 full cartons, and 1 more carton is needed for the extra 16 items.

70 cartons are needed to ship 2,500 items.

