

## Unit 9

# Family Letter

Reveal  
**MATH**<sup>®</sup>

Dear Family,

In this unit, Strategies to Add 3-Digit Numbers, we will be learning how to use mental math to add 10 and 100 to a 3-digit number and different strategies to add 3-digit numbers.

### STEM Career Kid for this Unit

#### Hi, I'm Riley.

Hello! My name is Riley, and I want to be an automotive engineer. Automotive engineers use math when they determine the sum of miles a car can travel on two tanks of gas.



### What math terms will your child use?

Term	Student Understanding
addends	numbers that are added to find a sum
adjust	when used to add, add an amount to one addend and take away the same amount from another addend to create at least one friendly number
decompose	break numbers into smaller parts; for example: you can use place value to decompose 425 into $400 + 20 + 5$
partial sums	a strategy for addition in which the sums of the place values are calculated and then added together



### What can your child do at home?

Throughout this unit, practice adding 3-digit numbers with your child. Create number cards using self-stick notes or index cards. There should be 3 cards for each number 0–9. Have your child use the cards to create a vertical addition problem. Have him or her solve the problem before drawing new cards.

# What Will Students Learn in This Unit?

## Mentally Adding 10 or 100

In this unit, your child learns how to use patterns to add 10 and 100 to 3-digit numbers. When adding 10, the digits in the tens place is one more. There is one more 10 and the other digits do not change. Students need to remember that they will sometimes need to make a new hundred. In this case, the hundreds and tens place will change but the ones place will not. When adding 100, the digit in the hundreds place is one more. There is one more 100 and the other digits do not change.

*Examples:*

Adding 10

$$148 + 10 = 158$$

$$319 + 10 = 329$$

$$691 + 10 = 701$$

Adding 100

$$457 + 100 = 557$$

$$711 + 100 = 811$$

$$832 + 100 = 932$$

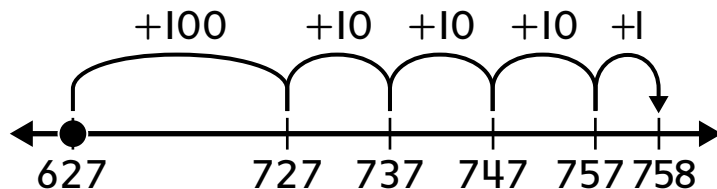
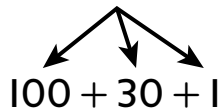
## Decomposing Addends to Add 3-Digit Numbers

Your child also learns to decompose one or both addends to add 3-digit numbers. Students will decompose one or both addends and then add the parts to find partial sums. They then add the partial sums to find the total.

*Examples:*

Decompose One Addend

$$627 + 131$$



Decompose Both Addends

$$\begin{array}{r} 332 \\ \swarrow \downarrow \searrow \\ 300 + 30 + 2 \end{array} + \begin{array}{r} 546 \\ \swarrow \downarrow \searrow \\ 500 + 40 + 6 \end{array} = ?$$

$$300 + 500 = 800$$

$$30 + 40 = 70$$

$$2 + 6 = 8$$

$$800 + 70 + 8 = 878$$

$$\text{So, } 332 + 546 = 878.$$

## Explain Addition Strategies

Your child also learns that he or she can use any of the addition strategies taught in this unit to add 3-digit numbers and the sum will stay the same no matter what strategy is used. Your child will also learn that one of the addition strategies may work better than the others when finding the sum of an addition equation. Your child will learn to identify which addition strategy is most useful based on the 3-digit addends in the problem.