## Dear Family,

## STEM Career Kid for this Unit

## Hi, I'm Saffron. <br> Hirlin Saffron.

I want to be a chef. I will use math in my job when I adjust measurements in recipes. I'll show students how I will use addition and subtraction in my work.

What math terms will your child use?

| Term | Student Understanding |
| :---: | :---: |
| algorithm | a step-by-step process to follow to solve a problem |
| bar diagram | a visual representation of the components of an addition or subtraction problem |
| partial sums | the sums you get in each step of an addition equation $\begin{array}{r} 2,423 \\ +1,256 \\ \hline 3,000 \\ 600 \\ 7 \quad 70 \\ +\quad 9 \\ \hline 3,679 \end{array}$ |



In this unit, Add and Subtract Multi-Digit Numbers, your child will learn how to use strategies to add and subtract multi-digit numbers. Your child will also learn to solve 2 -step problems involving addition and subtraction.

## What can your child do at home?

Help your child develop fluency in adding and subtracting multi-digit numbers. Write a different multi-digit number on each of ten index cards. Have your child draw two or three cards and find the sum or difference of the numbers.

## What Will Students Learn in This Unit?

## Estimating Sums or Differences

Your child will learn how to make estimates for sums or differences. Students learn how to use rounding, compatible numbers, and ranges to estimate. Estimating sums or differences allows students to determine if an answer is reasonable.

## Example

Estimate $4,873+2,923$. Then use a calculator to find the actual sum.

Round to estimate.
Use compatible numbers to estimate.
Think about a range.
$4,870+2,920=7,790$
$4,875+2,925=7,800$
Between 7,700 and 7,900.

The actual sum is 7,796 .

## Using an Algorithm to Add

Your child will use an algorithm, or a set of steps, to find the sums of multi-digit whole numbers. Students will learn that they add the digits in the same place value from right to left. The ones are added, then the tens, then the hundreds, and so on. Students will also learn how to add when regrouping is required. Below are two examples of using an algorithm to add. The first problem requires no regrouping. The second problem requires regrouping.

## Examples

$$
\begin{array}{r}
7,035 \\
+1,624 \\
\hline 8,659
\end{array} \begin{array}{r}
14,943 \\
+\quad 6,299 \\
\hline 21,242
\end{array}
$$

## Using an Algorithm to Subtract

Your child will use an algorithm to subtract multi-digit numbers. As with addition, subtraction with an algorithm is done right to left, starting with the ones place. Students will learn that regrouping is sometimes necessary in subtraction. Regrouping is required when the digit being subtracted from is less than the digit being subtracted. Below are two examples of using an algorithm to subtract. The first requires no regrouping. The second example requires regrouping.

## Examples

$$
\begin{array}{rr}
8,525 \\
-\quad 7,103 \\
\hline 1,422
\end{array} \begin{array}{r}
28,4,412 \\
-\quad 16,501 \\
\hline 12,911
\end{array}
$$

