

Grade 2 Module 4

Tips for Families

Key Concepts Overview

Focus TEKS: **2.4B, 2.4C, 2.4D, 2.7B, 2.7C**

In Module 4, students use their knowledge of place value and properties of operations to build fluency in two-digit addition and subtraction within 100, and to solve one- and two-step word problems within 100. This module also builds students' understanding of addition and subtraction of multi-digit numbers within 200. Your student will:

- ☐ Learn **simplifying strategies** to develop fluency.
- ☐ Learn how to add vertically with a focus on building lasting place value understanding.
- ☐ Model and record the steps of the **vertical form** by using **place value disks** on a place value chart.
- ☐ Use drawings of place value disks and the **chip model** to show place value concepts at work.
- ☐ Subtract vertically by aligning place value units.
- ☐ **Compose**, or bundle, tens and hundreds when adding.
- ☐ Use known facts, such as $5 + 8 = 13$ (5 ones + 8 ones = 13 ones), to solve more complex problems, such as $50 + 80 = 130$ (5 tens + 8 tens = 13 tens).
- ☐ Deepen their understanding of the repetitive nature of the subtraction **algorithm**, unbundling 1 hundred for 10 tens and 1 ten for 10 ones when necessary.
- ☐ Compare and discuss the various strategies for adding and subtracting up to 200.
- ☐ Learn about an addition method called **totals below**.
- ☐ Solve and create one- and two-step word problems.

You can use the checklist above to help monitor your student's progress of the knowledge and skills in this module. Daily sample problems with solutions and thought bubbles are found in the Homework Helper pages in the Succeed Student Edition to help you support your student as they work at home.

Additional Ways to Help at Home

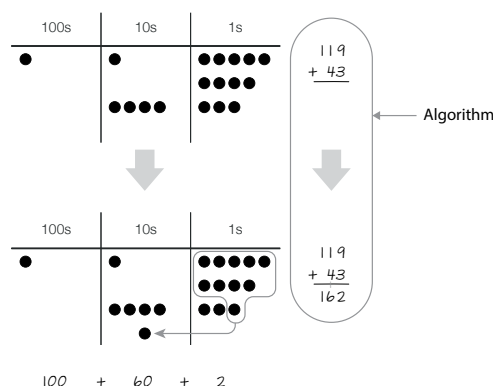
- Practice place value understanding by asking your student to tell how many ones, tens, and hundreds are in various numbers. For example, you say, "134," and your student responds, "4 ones, 3 tens, 1 hundred."
- Invite your student to find the missing part to make the next ten. For example, ask, "How much does 7 need to make 10?" (3) Then say, "Tell me the number sentence." ($7 + 3 = 10$) Continue with 17, 27, 37, and so on. Repeat this activity with other sequences, starting small and building to larger numbers up to 100.
- Encourage your student to explain what she is doing when solving problems to reinforce place value language. For example, ask, "How did you know you needed (or didn't need) to bundle in the ones place?" "I knew I needed to bundle in the ones place because 7 ones plus 5 ones equals 12 ones. That's 1 ten 2 ones."



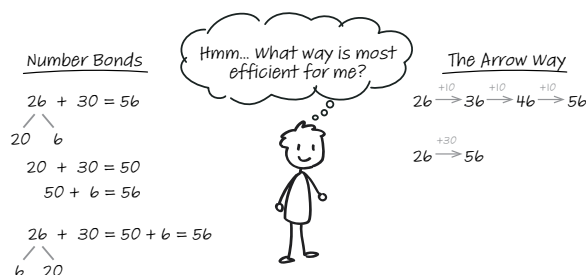
- Help your student practice knowing when to unbundle a ten by playing the game “Take from the Tens or Ones” with him. For example, if you say, “ $46 - 5$,” your student should say, “Take from the ones.” If you say, “ $46 - 7$,” your student should say, “Take from the tens.”
- When your student sees a number that is close to the next ten (one that ends in 7, 8, or 9), suggest she use a simplifying strategy rather than the vertical form. For example, to solve $58 + 63$, ask your student, “How can you make the next ten to solve a simpler problem?” ($60 + 61$).
- Use consistent language to help your student through the subtraction process. For example, to solve $172 - 56$, you might say, “Let’s look at the ones place first. Do you have enough ones to subtract 6 ones?” (No, because 6 ones are more than 2 ones.) “Where can you get more ones?” (From the tens place.) “Show what happens in the tens place.” (7 tens becomes 6 tens.) “How many ones do you have in the ones place now?” (12 ones.) Continue with, “Now, let’s look at the tens place. Do you have enough tens to subtract 5 tens?” (Yes, because there are 6 tens.) And so on. Encourage your student to use place value language to respond and have them record their work.

Terms

Algorithm (*Algoritmo*): a step-by-step procedure to solve a particular type of problem



Simplifying strategy (*Estrategia para simplificar*): a way of thinking about a problem that makes it simpler to find the value (e.g., to solve $26 + 30$, think $20 + 30 = 50$ and $50 + 6 = 56$)



Totals below: an addition strategy where the values of each of the digits in like places are added together and written below the line before being totaled

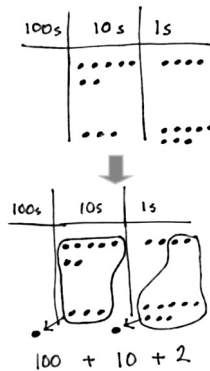
$$\begin{array}{r}
 125 \\
 + 75 \\
 \hline
 100 \\
 90 \\
 10 \\
 \hline
 200
 \end{array}
 \quad \text{or} \quad
 \begin{array}{r}
 125 \\
 + 75 \\
 \hline
 10 \\
 90 \\
 100 \\
 \hline
 200
 \end{array}$$

Models

Arrow Way

$$29 \xrightarrow{+40} 69 \xrightarrow{+2} 71$$

Chip Model



Place Value Disks

