## GRADE FOCUS

First Grade mathematics is about (1) learning strategies for adding and subtracting within 20; (2) developing an understanding of whole number relationships and place value, including grouping in tens and ones; (3) measuring length and using length units such as centimeters; and (4) reasoning about the qualities of shapes.

- Module 1: Sums and Differences to 10
- Module 2: Introduction to Place Value Through Addition and Subtraction Within 20
- Module 3: Ordering and Comparing Length Measurements as Numbers
- Module 4: Place Value, Comparison, Addition and Subtraction to 40
- Module 5: Identifying, Composing, and Partitioning Shapes
„ Module 6: Place Value, Comparison, Addition and Subtraction to 100


## LET'SCHCK IT OUT!

## MODULE 6 FOCUS

In this final module of the school year, students synthesize their learning from all the other modules, working with the most challenging Grade 1 content. In the first several lessons, students identify and solve various types of word problems. Next, they extend their skills with tens and ones to numbers to 120 , both counting and performing addition and subtraction. Finally, they are introduced to nickels and quarters, having already worked with dimes and pennies. The module concludes with fun fluency activities to celebrate their year of mathematical learning.

## MORE SPECHIICALIY, CHILDREN WILL LEARN HOW TO

- Represent and solve problems involving addition and subtraction
» Use addition and subtraction within 20 to solve word problems
- Extend the counting sequence
» Count to 120, starting at any number less than 120
- Understand place value
» Understand that the two digits of a two-digit number represent amounts of tens and ones
» Compare two two-digit numbers based on meanings of the tens and ones digits
- Use place value understanding and properties of operations to add and subtract
- Tell and write time and money


## TOPIC OVERVIEW

Topics are the lessons within a module that help children master the skills above. Here are the lessons that will guide your child through Module 6:

- Topic A: Comparison Word Problems
- Topic B: Numbers to 120
- Topic C: Addition to 100 Using Place Value Understanding
- Topic D: Varied Place Value Strategies for Addition to 100
- Topic E: Coins and Their Values
- Topic F: Varied Problem Types Within 20
- Topic G: Culminating Experiences


## WORDS TO KNOW

- Comparison Problem Type: In these word problems, students compare two quantities to find the part that makes them different from each other. (See reverse for a sample problem).
- < less than symbol: 5<10
- > greater than symbol: $4>1$
- = equal to symbol: $6=6$
- Dime: 10 cents
- Nickel: 5 cents
- Penny: 1 cent
- Quarter: 25


## SAMPLE PROBLEMS

Two different methods for two-digit addition:

$$
\begin{gathered}
47+23=70 \\
\hat{\wedge}= \\
47+20=67 \\
67+3=70 \\
47+23=70 \\
3 \hat{20} \\
47+3=50 \\
50+20=70
\end{gathered}
$$



The tape diagram is a powerful model that students can use to solve various types of problems. At this point in first grade, we will introduce it as another way to conceptualize addition and subtraction word problems. Tape diagrams are especially powerful visual models for comparing two quantities, which students will do quite extensively in Module 6. These diagrams are also called "bar models" and consist of simple bar drawings that students make and adjust to fit a word problem. They then use the drawing to discuss and solve the problem.

As students move through the grades, tape diagrams will continue to be used, and later will provide an essential bridge to algebra. Below are two sample word problems from Module 6 solved using a tape diagram to show the parts of the problem.
 Number bonds with coins off. Students learn to solve for the missing part, and to show their answer as a subtraction equation.

Shanika has 6 roses and 7 tulips in a vase. Maria has 4 roses and 8 tulips in a vase. Who has more flowers? How many more flowers does she have?


## HOW YOU CAN HELP AT HOME

- Using loose change around the house, invite your student to count and compare the coins.
- Continue to practice 10 more/10 less questions, e.g. "What is 10 less than 40 ? What is 10 more than 52?"
- Ask your student to compare and find the difference between two quantities, and note the strategy used.

