InsightMath

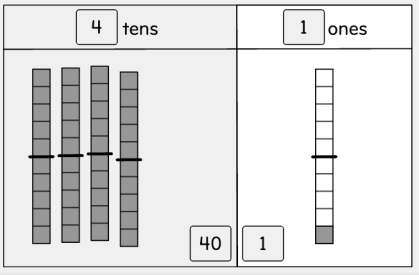
Exploring Place Value within 120

Family Guide | Grade 1 | Unit 4

Your student is exploring how the base-10 place value system provides a structure to represent all numbers symbolically using the same 10 digits.

Key Math Ideas

The concept of place value is the basis of our number system. Place value refers to the value of each digit in a number depending on where it is in a number. For example, in the number 53, the 5 represents 5 tens (or 50), but in the number 35, the 5 represents 5 ones (or 5). Using visual models can help students make sense of the value of each digit in a number. For example, the number 22 can be represented with two groups of 10 ones and 2 more ones.

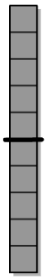


Place value mat showing 41

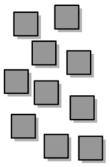
→ In the first part of the unit, your student will learn to

- compose and decompose numbers from 11 to 19 as a
- group of 10 and some more using models such as a ten frame;
- use a place value mat to represent numbers as one group of 10 and some more. For example, 13 is one group of 10 and 3 more;
- create groups of 10 using a ten frame and other models;
- count efficiently by making groups of 10.

Compose 10.

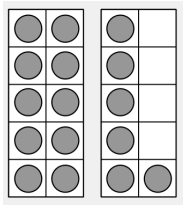


Decompose 10.



→ In the middle of the unit, your student will learn to

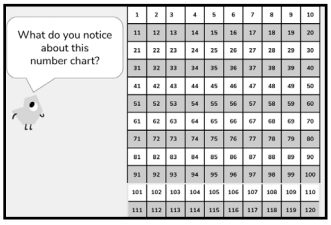
- count and represent two-digit numbers as tens and ones;
- recognize and use a variety of models—including numerals, words telling tens and ones, physical materials, ten frames, and place value mats—to represent numbers from 0 to 99.



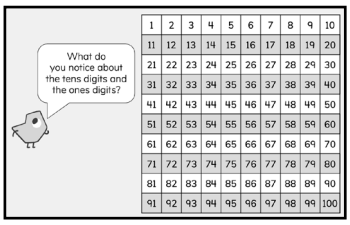
Ten frame showing 16 is one group of 10 and 6 more.

→ In the last part of the unit, your student will learn to

- build, write, name, and count numbers up to 120;
- create a number path and a hundred chart to be able to identify number patterns to find numbers that are 10 greater or 10 less and 1 greater or 1 less than a given number;
- identify and place numbers from 1 to 120 on a number path or number chart.



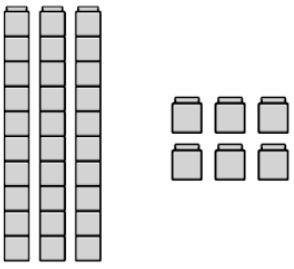
Hundred chart



Number chart

Helpful Hint

Use explicit place-value language, such as “3 tens and 6 ones,” when talking about numbers and follow immediately with standard language, such as “thirty-six.” This supports students’ understanding of the value of each digit in two-digit numbers.



Tips for Supporting Your Student at Home

Questions to Ask Your Student

→ At the beginning of the unit:

- How does making a group of 10 make it easier to count?
- How do different models (sticks, blocks, petals) show groups of 10?
- What model do you understand the best for making 10 and some more?

→ In the middle of the unit:

- How can you model a two-digit number?
- How does the model you created show the number of tens and ones?

→ At the end of the unit:

- How can you count forward by 10 and backward by 10?
- How many ones, tens, and hundreds are in the number?

If...	Try...
your student reverses the digits when writing teen numbers, such as writing fourteen as 41 because they hear "four" first . . .	encouraging them to wait until they hear the entire number before they write the matching number.

Student Strengths Spotlight

We listen to other people's ideas.	As students share how to show two-digit numbers by making groups of 10, they listen to each others' ideas to expand their understanding and make place value connections.
We model our thinking.	Students build models of two-digit and three-digit numbers within 120 using a variety of tools, such as place value blocks, counting cubes, craft sticks, and visuals like flower petals.

Try This Together!

- **Daily Moments.** Take advantage of moments in your day, such as walking or driving to school or getting ready for bedtime, to practice counting forward and backward by 1s and by 10s with numbers up to 100, starting at any number. When counting by 10s, start at numbers that end in 0.
- **Daily Task Fun!** When doing daily tasks involving quantities, ask your student how many there would be if there were 1 more or 1 fewer, or 10 more or 10 fewer. For example, when setting the table, ask your student how many dishes you are using, and then ask, "How many is 10 more?"
- **Modeling to Show Value.** Ask your student to say a two-digit number and use objects you have around the house, such as building blocks, sticks, or cereal, to model the number. Then, ask them to write the number, share the value of each digit, and explain how their model shows that. For example, the number 25 can be modeled with two rows of 10 objects to show 2 tens and 5 more objects to show 5 ones.