(K) Module 4

### Core Focus

- Number: Representing 0 to 10, including writing number names
- Number: Working with benchmarks of 5 (five-frame) and 10 (ten-frame)
- Number: Recognizing quantities by sight (subitizing)

Ideas for Home

- Count out a set of ten small objects. Ask your child to create a set with more than five. Then ask your child to describe how much more than five the set is. Then ask your child to create sets that are fewer than five.

Numbers 0–10

- Students write the **number names** ten, seven, six, three and zero first, and then five, nine, four, eight, two, and one, matching them to **numerals** and sets of objects.
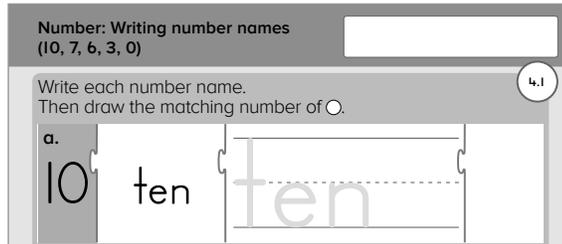
- Though students learn about zero very early on, when they are first learning to count, they begin from one. Thinking about zero as a number representing the absence of something is an advanced idea and is left to later grades.

Benchmarks of 5 and 10

- Because most of us have five fingers on each hand, and ten fingers on both hands, five and ten are useful benchmark numbers for students.

- A **five-frame** helps students develop a benchmark for working with numbers. They begin to identify the number in a collection without the need to count all of the objects. For example, seven is a filled five-frame and two more. Similarly, a collection that does not fill the five-frame is less than five.
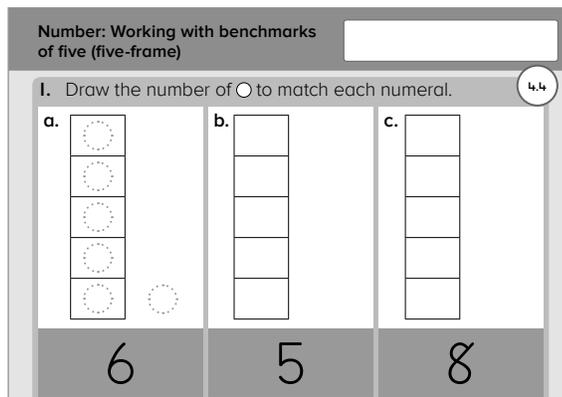
In this lesson, students work with a five-frame to represent quantites from 1 to 9.

Glossary

▸ Matching sets of objects to **number names** and **numerals** helps students understand number concepts.

▸ A **five-frame** helps students develop five as a benchmark number: 8 is a full frame and 3 more, and 3 is less than 5 since the five-frame is not full.
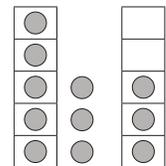

Helpful videos

View these short one-minute videos to see these ideas in action.

www.bit.ly/O1_11
www.bit.ly/O1_13

K Module 4

- Students build on their understanding of five-frames and begin to represent numbers on ten-frames.

- Students describe how numbers relate to 10 (8 is both 2 less than 10, and 3 more than 5). Becoming familiar with these relationships is helpful for later lessons on basic addition facts.

Number: Working with benchmarks of ten (ten-frame)

1. Draw ○ on the ten-frame to match each numeral. `4.5`

a. b. c.
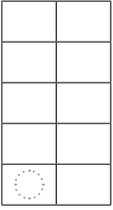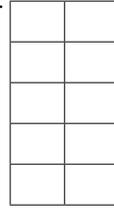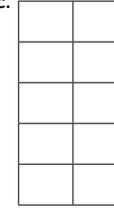
7   10   8

In this lesson, students represent numbers 1 to 10 on a ten-frame, comparing each number to the benchmarks of 5 and 10.
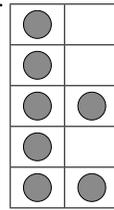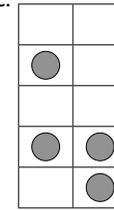
Subitizing

- Through continued experience with counting, students begin to recognize small sets without counting, just by looking (e.g. sets with two to five objects).

Number: Working with unstructured arrangements

Write the numeral to match the number of dots. `4.6`
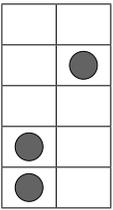
a. b. c.

In this lesson, students become more confident at recognising small sets without counting.

Ideas for Home

- Talk about quantities with your child. E.g. after you put six cans in the shopping cart, ask your child if there are more or less than ten cans, and to explain their thinking.

- Work with your child to create a counting book with drawings, stickers, and/or pictures cut from magazines. Show each number in different ways. Your child could draw three apples on one page and show three dots in a diagonal row on another page.

- Notice small groups of objects (five or less) when you are out with your child. Ask, "How many leaves do you see?" or "How many cans are in the shopping cart?" Ask your child how they know. Did they just know or did they count the objects one by one?

- Ask what comes after a number such as seven. Children may have to start at one and count up to the number. If needed, prompt them by offering a shorter running start. E.g. ask, "What number comes after seven? Five, six, seven ..."

Glossary

▸ **Subitizing** is recognizing by sight the number of items in a group without counting them one by one.