

Core Focus

- Developing the concept of zero
- Working with benchmarks of 5 and 10
- Extending repeating patterns and growing patterns



Numbers 0–10

- When students are first learning to count, they begin from 1. Thinking about zero, as a word or symbol for the absence of something, is a more advanced idea.

5.1 → **Developing the Concept of Zero**

Write the number you see in each.

a.

apples

In this lesson, students write the numbers for the quantity they see, including zero.

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

5.3 → **Working with Benchmarks of 5**

Write the number of counters, then how many **less than** or **more than** 5.

a.

less than

5

b.

less than

5

c.

less than

5

In this lesson, students represent numbers 1 to 10 on a five-frame, and identify how many more or less the number is than 5.

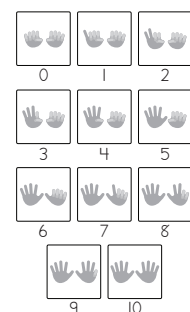
- Students build on their understanding of five-frames and begin to represent numbers on ten-frames.
- Students describe how numbers are related to 10 (8 is both 2 less than 10, and 3 more than 5). Becoming familiar with these relationships is helpful for later lessons on basic addition facts.

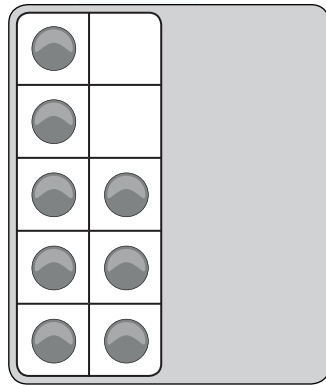
Ideas for Home

- Count out a set of five small objects, such as coins or dry beans. Ask your child to create a set with more than five. Then ask them how much more the set is than five. Keep all quantities at ten or less. Change the game and ask your child to create sets that are less than five.
- 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 10 cans. Be sure to listen for how they explain their thinking.

Glossary

- Students use Deca Cards to see numbers in relation to 5 and 10 when they look at the number of **fingers up** and the number of **fingers down**. E.g. 6 fingers up shows that 6 is 1 more than 5, and 4 away from 10.



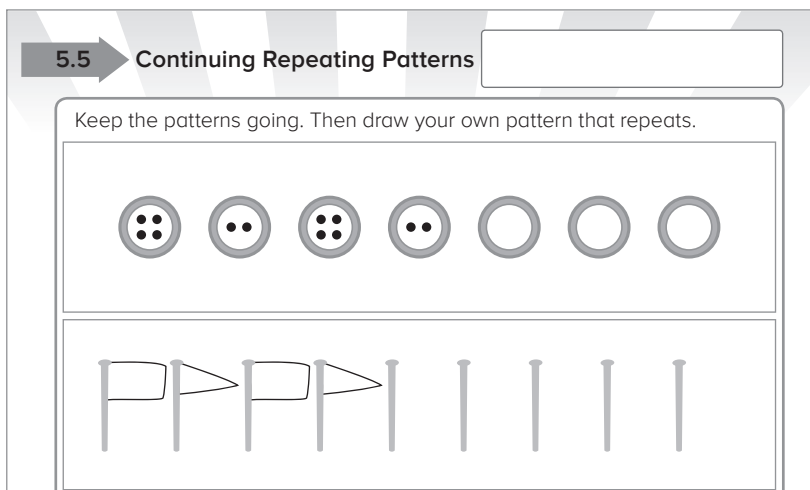


“Eight is two less than ten and
three more than five.”

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

Patterns

- Students use their own words to describe what they see and what will occur when a pattern is extended.
- The prediction of what will happen in the pattern encourages students to develop a rule.



In this lesson, students describe what is happening in a pattern (i.e. a button with four holes followed by a button with two holes), and then draw the next images to continue the pattern.

Ideas for Home

- Help your child identify and describe patterns they see all around them. E.g. a piece of clothing might have alternating blue and green stripes, or wallpaper might have an alternating pattern of astronaut and spaceships.
- Patterns can also be made by sounds and movements. Take turns with your child to make up repeating patterns by clapping, snapping fingers, stomping feet, or touching toes.
- Build simple patterns with your child at home using everyday objects such as buttons, spoons, socks, and toys. Once you've repeated the pattern at least two times (e.g. white sock, pink sock, white sock, pink sock), ask your child to keep the pattern going.