

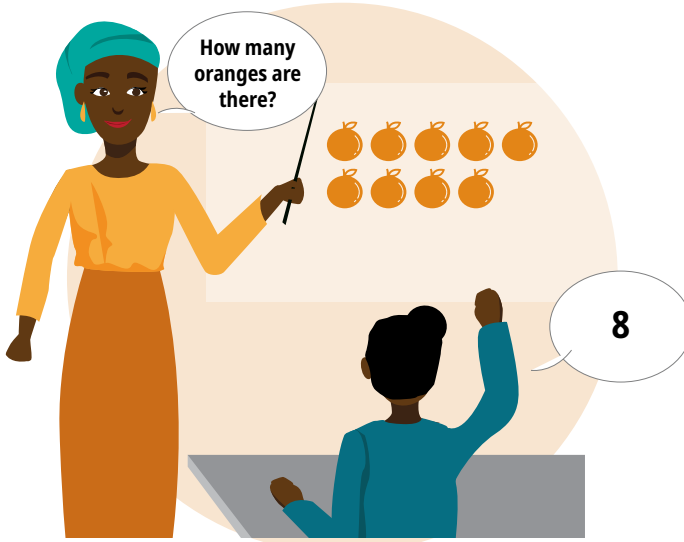
Count

Objectives

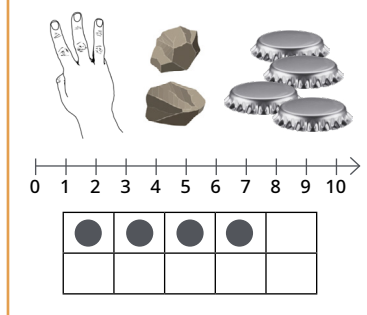
This mini-module aims to help teachers:

- Describe how children develop counting skills.
- Identify how materials are used to build counting skills.
- Practice a new teaching activity.

Illustration of Teaching



Recommended Materials



REFLECT:

- Why do you think the student said 8?
- What does this mistake tell you about the student's knowledge of counting?
- What would you do to support this student?

Ideas to Consider

The teacher drew 9 oranges on the blackboard. The student made a mistake, answering that there are 8 oranges. There could be different reasons for this mistake. The student might:

- Not know how the names of the numbers or how to count numbers in order ("1, 2, 3, ...").
- Have skipped over one orange when counting.
- Not understand that the quantity is the last number that was counted (9).
- Have difficulty seeing the picture on the board.

Mistakes are a normal part of the learning process, and they are valuable learning opportunities. Teachers should respond with a positive attitude and encourage children when they make mistakes. The teacher should assess why the student made this mistake so that she can plan activities that build their counting skills. For example, she could have them practice counting real objects instead of counting pictures on the board. When counting objects, children could touch them to make sure they are counting all of them. In this mini-module, you will learn how to support children to develop counting skills.



ACTIVITY: COUNT TO ANSWER "HOW MANY?"

This activity can be completed alone, in pairs, or with a group of teachers. If you have colleagues to work with, take turns moving and counting the counters. Discuss your responses to the questions.

Purpose: Consider how children learn counting skills.

Materials needed: A set of counters (e.g., bottle caps or stones) and a sheet of paper or exercise book for each participant to use independently or share with a partner.

Instructions

- Take a small handful of counters (fewer than 10).
- Count them one at a time, and place them on a table or desk as you do so.
- Say: **How many counters are there?**
- Pick up the counters one at a time, and put them on the sheet of paper (or exercise book). Count aloud as you do so.
- Say: **How many counters are there now?**
- Pick up each counter again, and move them off the paper. This time, place the counters in a straight line. Count aloud as you do so.
- Say: **How many counters are there now?**
- Pick up each counter again, and move them back to the paper. This time, place the counters in two straight lines. Count aloud as you do so.
- Say: **How many counters are there now?**
- Reflect and discuss: **What do you think children would learn by doing this activity?**




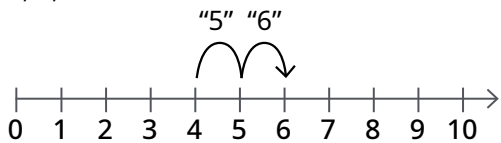
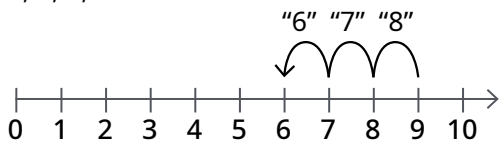
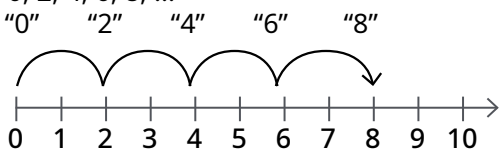
What Do Children Learn about Counting?

Children first learn how to count using real objects that they can hold and touch. Then, they count other representations of numbers, such as pictures drawn on the board, or dots on number cards. They count one by one by moving the objects or pointing to the pictures.

To count objects correctly and answer the question "How many?," children should:

- Know and say the number word sequence in the correct order ("1, 2, 3, ...").
- Use each number word only once as they count each object.
- Know that the last number word they say when they are done counting is how many things there are ("1, 2, 3, 4. There are 4 birds in the tree.").
- Know that the order in which things are counted does not matter.

After learning to count objects one by one, children learn other counting skills as well. They can count on, count backward, and skip count. It is helpful to practice each counting skill in different ways. For example, these skills can be practiced with objects, pictures, and a number line.

Children should be able to . . .	What does this mean?	Example
Count to answer the question "How many?"	Count objects or pictures accurately to answer the question "How many?"	
Count on	Count starting from a number other than 0 or 1.	<p>"Count on from 4." "5, 6, ..."</p> 
Count backward	Count backward from a greater number to a smaller number.	<p>"Count backward from 9." "8, 7, 6, ..."</p> 
Skip count	Count by a number other than 1.	<p>"Count by 2s." "0, 2, 4, 6, 8, ..."</p> 

Reflection

Write your responses down or discuss your ideas with your colleagues.

- Think of your own students. Which skills from the above table do you think they would find challenging? Why? How can you support them?
- Share an idea for how you could use each of these materials to teach skip counting:
 - Counters
 - Pictures
 - A number line
- Why do you think it is important for children to practice counting in different ways?

Teaching Practice

This practice activity may be completed by teachers with their own class or with a smaller group of students.



ACTIVITY: COUNT A GROUP OF OBJECTS

Purpose: Count objects to answer the question “How many?”

Materials needed: A set of counters (e.g., bottle caps or stones) and a sheet of paper or exercise book for each student to use independently or share with a partner. Each child’s set of counters need not be the same as those of their classmates.

Instructions

- Give each student (or pair of students) a small handful of counters (fewer than 10).
- Say: **Count the counters I gave you. How many do you have?**
- Invite students to share their number.
- Say: **Pick up the counters one at a time, and put them on your sheet of paper (or exercise book). Count them as you do so.**
- Say: **How many counters are there now? Did the number change?**
- Invite students to share their responses.
- Say: **Pick up each counter again, and move them off the paper. This time, place the counters in a straight line. Count them as you do so.**
- Say: **How many counters are there now? Did the number change? How do you know?**



- Invite students to share their responses.
- You may repeat with different instructions (e.g., **Put the counters in a circle as you count**).
- Ask students to exchange their set of counters with another student (or pair) and repeat the activity with a different set.



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