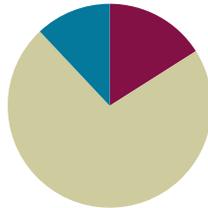


Lesson 11

Objective: Identify, analyze, sort, compare, and build with solid shapes.

Suggested Lesson Structure

■ Fluency Practice	(4 minutes)
■ Concept Development	(18 minutes)
■ Student Debrief	(3 minutes)
Total Time	(25 minutes)



Fluency Practice (4 minutes)

- Drum and Count to 7 **PK.CC.1** (4 minutes)

Drum and Count to 7 (4 minutes)

Materials: (S) Plastic or metal lid, 2 craft sticks

Note: This fluency activity anticipates the work of Module 3 by preparing children to count to 7 by rote so they are ready for the conceptual work of the first lessons in that module. By drawing out “i” the “fiiiive,” children start to see the relationship of 6 and 7 to 5.

- T: Let’s play and count to 6. Join in when you are ready. 1, 2, 3, 4, fiiiive, 6. (Continue until all are playing.)
- T: Now, let’s play and count to 7. Join in when you are ready. 1, 2, 3, 4, fiiiive, 6, 7. (Continue until all are playing.)

Concept Development (18 minutes)

Part 1: Concept Introduction

Materials: (T) Several foam or wooden 3-D shapes (cylinder, cone, cube, rectangular block, and sphere), box lid and can (ramp), piece of butcher paper large enough for a student to sit on

1. Demonstrate rolling with students. Call on a student to lie flat on the ground and **roll**. “Look at Sammy roll! His face is up, then down, then up again, and down again. Sammy is rolling!”
2. Demonstrate sliding with students. “Watch Mary **slide**.” Use a piece of butcher paper large enough for a student to sit on, and drag to slide her a few feet.



- Repeat rolling and sliding with as many students as time permits.
- Say, "Let's see if shapes can roll and slide." Display 3-D shapes (cylinder, cone, cube, rectangular block, and sphere), several of each kind, in different sizes, if available. Roll or slide each shape down the ramp. Test to see if each shape can be stacked.
- After each shape is tested, lead a short discussion about the shape's function. "This shape (cone) rolls AND slides!" "I can **stack** lots of these shapes (cubes) on top of each other."



NOTES ON MULTIPLE MEANS OF REPRESENTATION:

Highlight key vocabulary for English language learners when students roll and slide shapes and when they build a simple structure. This helps students feel more comfortable using math vocabulary in discussions.

Part 2: Practice

Materials: (S) 3-D shapes

Gather all the children in the block area.

- Say, "It's time for you to use shapes to be builders." Allow children to work with partners or independently.
- Model the activity by building a simple structure. Reinforce position words, and describe what is happening, using self-talk: "I am putting this shape with lots of flat sides on the **bottom**. Then, I will put this red box *above* the green one."
- Say, "Use the blocks and shapes to create a building, a room, a tower, or a bridge. When you are done, I will take a picture of your structure."
- As children begin building, encourage them to talk about their shapes' characteristics. Ask questions such as, "Why did you put the cone at the **top** of your building?" "Which shapes are good for making tall things? Why?" "Did you use any shapes that roll?" "What is *in front* of your tower?"

MP.6



Student Debrief (3 minutes)

Lesson Objective: Identify, analyze, sort, compare, and build with solid shapes.

The Student Debrief is intended to invite reflection and active processing of the total lesson experience. It is also an opportunity for informal assessment. Consider taking anecdotal notes or using a simple checklist to note each child's progress toward meeting the lesson objective.



CENTER CONNECTION:

Continue to explore 3-D shapes in the block center. As children build independently, ask them to tell why they chose particular blocks for specific functions. For example, "Why did you use the rectangular block at the bottom of your castle? Why didn't you use the cone?"

As students complete the Practice portion of the Concept Development, listen for misconceptions or misunderstandings that can be addressed in the Debrief.

Any combination of the questions below may be used to help students express ideas, make connections, and use new vocabulary (**roll, slide, stack**).

- What test did we give our shapes today?
- If you were going to build a tall tower, which shape(s) would be best to make the tallest tower?
- Which shapes can you roll *and* stack?
- I saw a lot of you use this shape (cylinder) in your buildings. Why did you build with it standing up instead of laying it down?