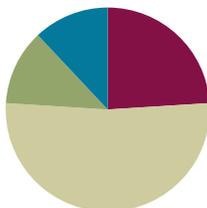


Lesson 2

Objective: Compare length using *taller than* and *shorter than* with aligned and non-aligned endpoints.

Suggested Lesson Structure

■ Fluency Practice	(6 minutes)
■ Application Problem	(3 minutes)
■ Concept Development	(13 minutes)
■ Student Debrief	(3 minutes)
Total Time	(25 minutes)



Fluency Practice (6 minutes)

- Counting Drumbeats **PK.CC.3b** (3 minutes)
- Tall and Short Chant **PK.MD.1** (3 minutes)

Counting Drumbeats (3 minutes)

Materials: (T) Toy drum or coffee can with lid and unsharpened pencil or other object to use as drumstick

Note: This activity challenges students to hone their listening skills and to count by sound alone, or use fingers to keep track of the count.

- T: I'm going to play my drum, and I want you to count the beats. So, if I play this (tap the drum once), that's 1. If I play this (tap twice), that's 2. You can keep track on your fingers if you'd like. Ready? (Play 2 distinct taps, one immediately after the other.) How many beats did I play?
- S: 2 beats!
- T: Very good! Now, listen again. (Play 3 distinct taps, each one immediately after the other.) How many beats did I play?
- S: 3 beats!



NOTES ON MULTIPLE MEANS OF ACTION AND EXPRESSION:

Provide a variety of ways for students to track the number of drumbeats. Students who have difficulty tracking the beats with their fingers may benefit from having a cube or bean to place in front of them each time a drumbeat is heard.

Let students know that the counting sequence will not necessarily be followed. As students become acquainted with the activity, experiment with the musicality of the beats. For example, try long pauses, short pauses, or a combination between the beats. Make today's goal to work within 3, including 0.

Tall and Short Chant (3 minutes)

Materials: (T) Objects, or pictures of objects (giraffe, cat) named in the chant (optional)

Note: The chant and corresponding movements activate students' prior knowledge, preparing them to use the vocabulary in today's lesson.

- T: Remember yesterday, we used the words *tall* and *short* to describe things? (Show a picture of a giraffe.) Look at this giraffe. Is it tall or short?
- S: Tall.
- T: Listen to my chant. I can make myself tall, tall, tall (emphasize with movement). Tall like a giraffe! Now, you try it.
- S: I can make myself tall, tall, tall (standing up straight, on tip-toes). Tall like a giraffe!
- T: (Show a picture of a cat.) Look at this cat. Is it tall or short?
- S: Short.
- T: Listen to my chant. I can make myself short, short, short (emphasize with movement). Short like a cat! Now, you try it.
- S: I can make myself short, short, short (crouching down, kneeling, other movement indicating shortness). Short like a cat!
- T: Sounds great! Let's put it all together.
- S: I can make myself tall, tall, tall. Tall like a giraffe! I can make myself short, short, short. Short like a cat!

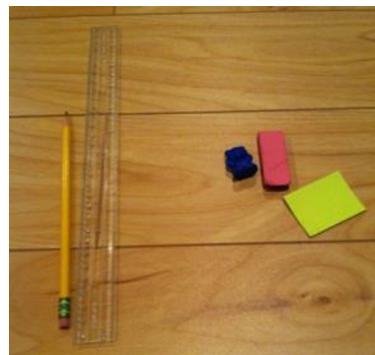
Continue a few more times with objects that lend themselves to comparison of height and that would be familiar to students. For example, city students might relate to a skyscraper or an apartment building, whereas students from rural areas might be more familiar with a barn or a shed.

Application Problem (3 minutes)

Materials: (T) 5 items of tall and short objects

Show students the 5 objects and say, "Sort these into two groups." Then, ask students to tell about how they sorted the objects. If students sort in a way other than tall and short, let them explain their reasoning, then sort the items by tall and short. Then ask, "Now, how are the objects sorted?" Listen for the vocabulary students use (e.g., *bigger* and *smaller*, *taller* and *shorter*). Have them count how many objects are tall and how many are short.

Note: This activity leads into today's Concept Development as students compare length in an informal manner. It also provides an opportunity for them to discover naturally the importance of aligned endpoints.



Concept Development (13 minutes)

Part 1: Concept Introduction

Materials: (T) 1 chair, pen, marker, paper with straight line drawn across the bottom

1. Call on a student to stand next to the teacher, back-to-back. Ask the class, “Who is **taller**? Who is **shorter**?”
2. Say, “Yes, I am *taller than* David!” and “Yes! David is *shorter than* I am.” Guide students to repeat, using the sentence frame: “_____ is *taller/shorter than* _____.” Explain that these words are used when wanting to **compare height**.
3. Help David onto a chair so that it appears he is taller. Ask, “Am I shorter than David now?” Discuss that the teacher is still taller than David. Have students use new vocabulary with the sentence frame from Step 2.
4. Explain that length cannot be compared unless starting from the same place—the floor. This is also true when comparing a pen and a marker. Demonstrate moving the endpoint with the pen and marker, playfully announcing, “Oh, look! Now, the pen is longer!” “Is that correct?” “Why?” Again, have students practice using new vocabulary with the sentence frame from Step 2.
5. Discuss that, when something is standing up, it is usually described as **tall**; whereas, when something is lying flat, it is usually described as **long**. “Would we describe a snake as long or tall?” “Would we describe a rope as long or tall?”
6. Say, “I’m going to lay this pen and marker down on this piece of paper so that the bottom of both objects is touching this line. Which one is *longer*?”
7. Encourage students to use the sentence frame to compare the marker and pen: “The _____ is *longer than* the _____.”



Part 2: Practice

Materials: (S) Box of objects to compare

Prepare each table with a box of several objects to compare.

1. Pair students, and send them to a table to compare their heights using the statement, “I am *taller than/shorter than* _____.” Comment while listening to students using new vocabulary.
2. Invite students to compare the objects in the box. Encourage students to make *longer than*, *taller than*, and *shorter than* statements as they work.
3. Notice if students align the endpoints. Use parallel talk to describe their actions: “Rhonda is standing both animals up on the table to see which one is taller.”

MP.3

Student Debrief (3 minutes)

Lesson Objective: Compare length using *taller than* and *shorter than* with aligned and non-aligned endpoints.

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.

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 (**compare, height, taller, taller than, shorter, shorter than**).

- Which is *longer*, your arm or your leg? Which is **taller**, a baby giraffe or a mama giraffe? What other pairs of objects can you think of that are taller and **shorter**? (Guide students to respond with the sentence frame.)
- Which do you think will be shorter, a brand new pencil or a pencil that you have been writing with all week? Which do you think will be longer, a brand new crayon or a crayon that you have been using for a week?
- Why does it matter that we put objects at the same starting point when we want to know which one is longer or taller?
- Can you use our new words to **compare** the **height** of 2 objects or people?



CENTER CONNECTION:

Place several paper strips and yarn of different lengths at the art center table. Allow students to use scissors to cut the strips and yarn to show *longer*, *taller*, and *shorter*. Students can also simply compare the strips and yarn to each other.