

# FAMILY MATH

## Compare Height and Length

Dear Family,

Your child is learning to explore measurement by noticing the importance of aligning endpoints to compare the lengths of two objects. The terms *taller* and *shorter* are used to compare objects that are vertical or “standing up.” The terms *longer* and *shorter* are used to compare objects that are horizontal or “laying down.” Your child will also compare objects that are “about the same length.” There are many opportunities in your child’s daily life to notice and explore length and height.

### Words We Are Learning

Height

Tall(er)

Short(er)

Long(er)

Endpoint

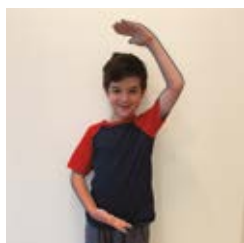


Longer

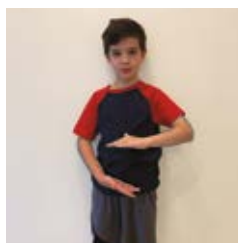


Shorter

*Students use gestures to help remember new math words.*



Taller



Shorter

## At-Home Activities

### Activity Idea 1 Let the Straws Decide

Gather two or more straws and cut one shorter than the others. Create a rule for the game. For example, for the first round, whoever chooses the shorter straw wins. Then for the second round, whoever chooses the longer straw wins. Hold the straws in front of you with closed fists and with the ends aligned. The straws should appear to be the same length. Ask your child to select a straw and see who won! Invite them to explain who won by using their new math words.

### Activity Idea 2 Scavenger Hunt

A scavenger hunt allows children to explore and compare household items. Cut out the attached word cards and choose a household item, such as a marker. Ask your child if they can find a different household item that matches the word on one of the cards.

For example:

“Can you find something that is taller than the marker?”

“Can you find something shorter than the marker?”

“What is about the same length as the marker?”

“If you lay the marker down, what card could you use?” (the *longer* card)



**TALLER**

**SHORTER**

## Standard Measurement

In kindergarten, measurement is used as a meaningful context to practice comparisons. Students become confident directly comparing the lengths of items, like a pencil and shoe, with statements such as, “The shoe is longer than the pencil.” As the learning progresses, students will associate number and length by including cube sticks in their comparisons. “The sticky note is about the same length as the 4-stick.” This work



**SHORTER**



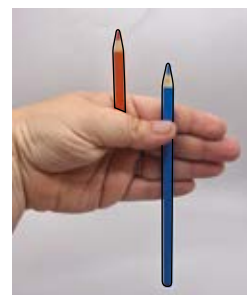
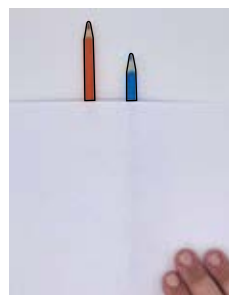
**LONGER**



will prepare students to measure with centimeter cubes in grade 1 and rulers in grade 2.

## Aligning Endpoints

Students discover the importance of aligning endpoints to compare the lengths of two objects. In the first image below, the orange pencil appears longer than the blue one. However, once the paper is removed, students recognize that this isn't the case and that both pencils must be aligned for an accurate measure.



Students learn that mathematicians call this *lining up the endpoints*. They discover that it doesn't matter which end of an item they use, as long as both start at the same place. Similar to a race, all participants line up at the starting line. Students may use a tool, such as a piece of paper, to make sure the endpoints are aligned. This is foundational for the accurate use and understanding of rulers and number lines.

**TALLER**

**SHORTER**

**LONGER**

**SAME**

