

LESSON 2

Objective

Sort objects by height.

Common Core State Standards

- **K.MD.1** Describe measurable attributes of objects, such as length or weight. Describe several measurable attributes of a single object.
- **K.MD.2** Directly compare two objects with a measurable attribute in common, to see which object has “more of”/“less of” the attribute, and describe the difference. *For example, directly compare the heights of two children and describe one child as taller/shorter.*

Measurement and Data

Sorting by Height

It is important for children to learn the correct vocabulary for comparing the heights of objects. While they may be familiar with words such as *tall* and *short*, they may need explanations and practice using comparative words such as *tallest* and *shortest*. Use several real-life examples to reinforce these terms.

Try It! Perform the Try It! activity on the next page.

Talk About It

Discuss the Try It! activity.

- **Say:** Name something in the classroom. Now find something taller. **Ask:** What is the tallest object in our classroom? Make sure children understand the difference between *tallest* and *highest*. For example, a book on top of a bookshelf may be higher than other objects, but that does not mean it is taller than the other objects.
- **Say:** In the activity we just did, we made three towers. One was the shortest, one was the tallest, and one was in the middle. We can describe other things with these words. Give children an example. **Say:** I saw a giraffe, an elephant, and a monkey at the zoo. **Ask:** Which do you think was the shortest? The tallest?
- **Ask:** If we are looking at several items, how can we decide which is the tallest? How can we tell which is the shortest? How could we be sure? (measure or compare)

Solve It

With children, reread the problem. Instruct children to draw a picture of three books in the order that Ashley put them on the shelf (tallest to shortest).

More Ideas

For other ways to teach about sorting by height—

- Have each child draw a picture of a tree. Then have each child make a chain of Link ‘N’ Learn® Links that shows the height of his or her tree. Have groups of three children lay their chains beside each other and compare the heights.
- Have children work in groups of five. Give one child in each group one Snap Cube®, another child two cubes, another three, and so on. Each child should connect the cubes he or she has. Then children should work as a group to order the towers from shortest to tallest.

Formative Assessment

Have children try the following problem.

Use crayons to color the tallest house red.
Then color the shortest house blue.



Try It! 10 minutes | Pairs

Here is a problem demonstrating how to sort by height.

Ashley is helping her teacher put books on the shelf. The teacher told her to arrange three books from tallest to shortest. How can Ashley figure out where to place each of the books?

Introduce the problem. Then have children do the activity to solve the problem.

Show three Snap Cube® towers to the children. Ask which is the tallest, which is the shortest, and which is in the middle. Have a volunteer arrange the towers in order from tallest to shortest. Ask children to point to the towers and label each using the correct vocabulary. Repeat using three new towers. Assign children to work with partners. Give cubes to each pair of children, and have them follow these steps.

Materials

- Snap Cubes® (several per pair)



1. Ask children to make three towers using different numbers of cubes.



2. Have children compare the heights of the towers. **Say:** *Tell which tower is the tallest. Tell which is the shortest. Tell which is in the middle.*



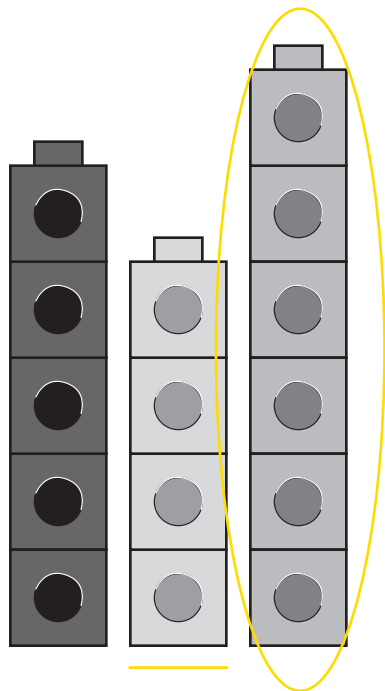
3. Have children order the towers from tallest to shortest. Then ask them to compare the heights of the tallest and shortest towers. Instruct children to remove cubes from the taller tower until it matches the shorter tower and count the removed cubes to find the difference in height between the two towers.

Look Out!

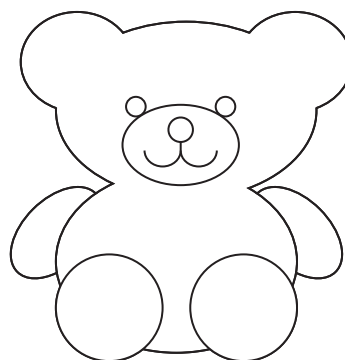
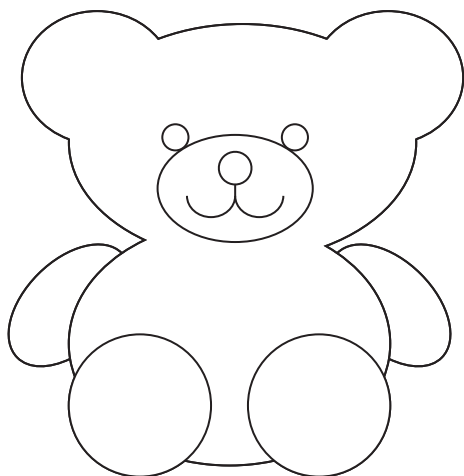
Children may confuse the terms *tallest* and *taller* and *shortest* and *shorter*. Point out that while the middle tower is *shorter* than the tallest tower, it is not the *shortest*. Emphasize the endings of the comparison words. Connect them to other comparison words such as *faster*, *fastest*, or *bigger*, *biggest*. In addition, watch for children who confuse how tall something is with how high in the air it is. For example, they may think that because a flag is high in the air, it is taller than the objects around it.



1.



2.



Check children's work.

Directions

1. Use Snap Cubes®. Build the towers. Circle the tallest tower. Underline the shortest tower. 2. Color the taller bear brown. Color the shorter bear blue.

Answer Key

Check children's work.

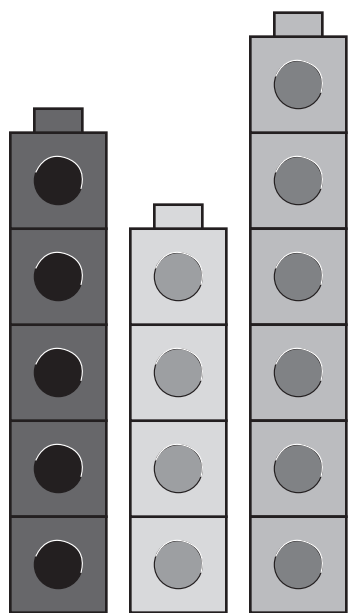
Challenge

Use Snap Cubes®. Build two towers with different heights. Draw a picture of your towers. Color the taller tower red. Color the shorter tower green.

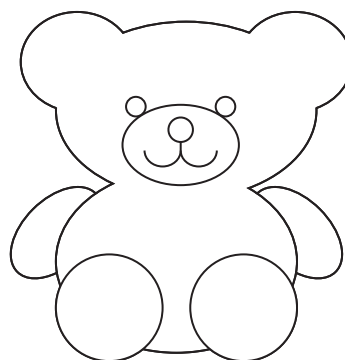
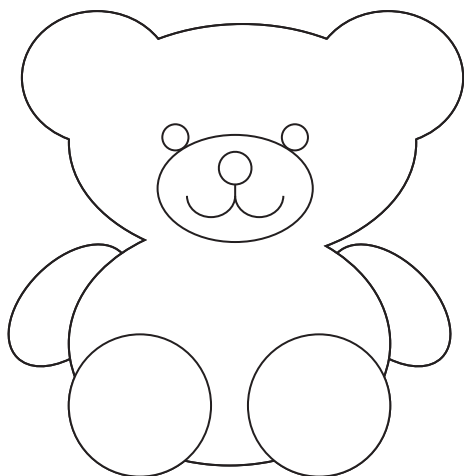
© ETA hand2mind™



1.



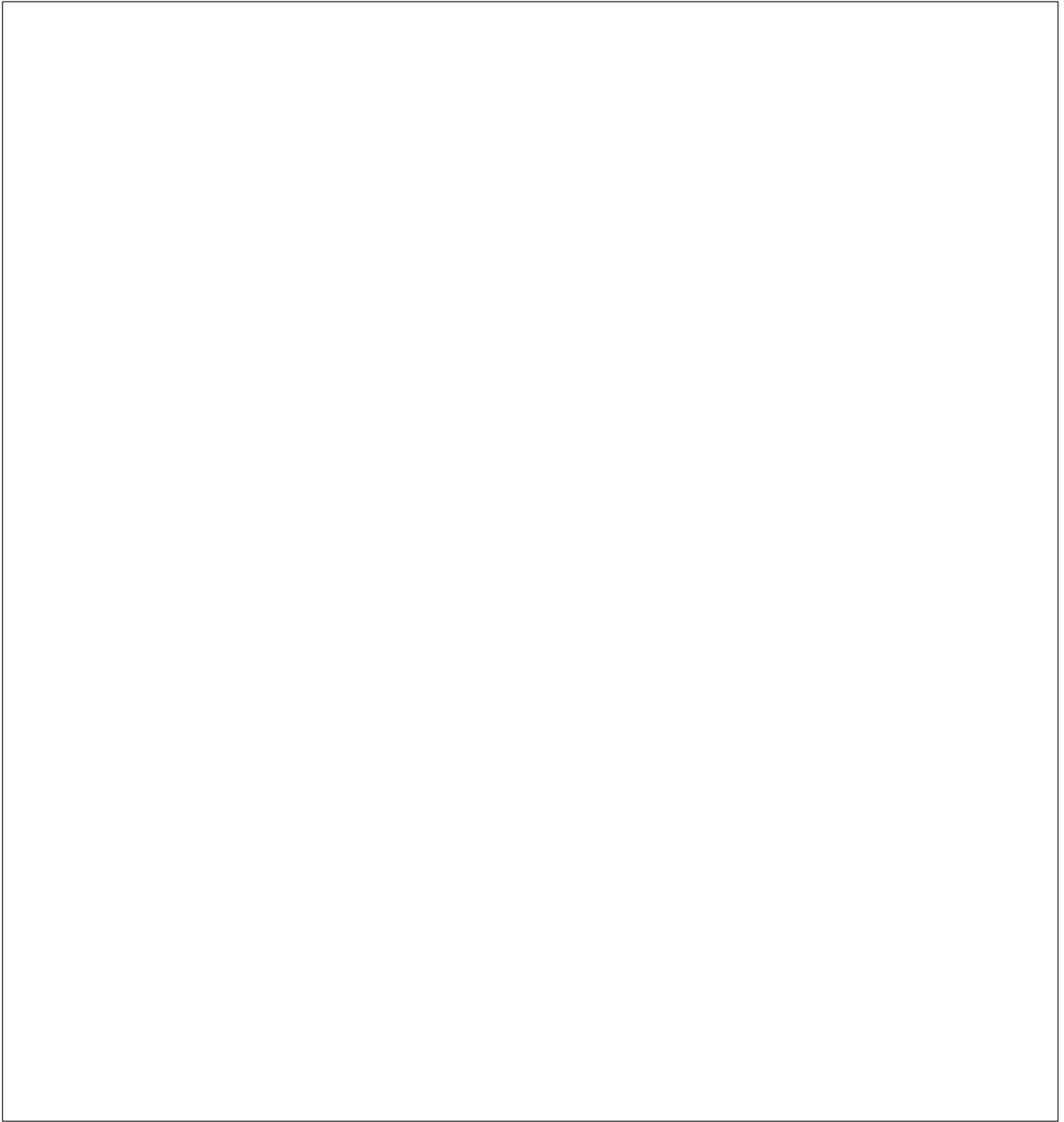
2.



Directions

1. Use Snap Cubes®. Build the towers. Circle the tallest tower. Underline the shortest tower. **2.** Color the taller bear brown. Color the shorter bear blue.

Name _____



Challenge

Use Snap Cubes®. Build two towers with different heights. Draw a picture of your towers. Color the taller tower red. Color the shorter tower green.