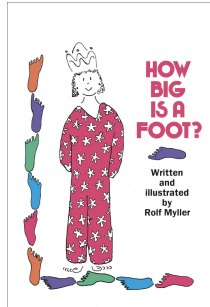


Can You Help the Apprentice?



Task

Why was the apprentice's bed too small for the Queen even though he followed the King's measurements? In your group, cut feet out to make a 3 feet by 6 feet bed using the traced pattern of my foot. Then choose one person in your group and trace their foot to make a 3 ft by 6 ft bed using their foot. Are the beds the same size? Why or why not?

Standards and Learning Targets

Standard 2.MD.1 Measure the length of an object by selecting and using appropriate tools such as rulers, yardsticks, meter sticks, and measuring tapes.

Standard 2.MD.2 Measure the length of an object twice, using length units of different lengths for the two measurements; describe how the two measurements relate to the size of the unit chosen.

Learning Target: Use appropriate tools to measure an object

Lesson Outline

Anticipate Misconceptions: Before you begin this lesson, be sure to anticipate the misconceptions your students might have about measuring using the [Picture Book Problem Monitoring Chart](#).

*****Before beginning this task, you'll want to get a pattern of your foot or someone with a larger foot for each bed and put students in groups of 3-4.**

Launch: Read aloud *How Big is a Foot* by Rolf Myller. Stop reading when the Page is thrown in Jail and pose the problem: Why was the apprentice's bed too small for the Queen even though he followed the King's measurements? In your group, cut feet out to make a 3 feet by 6 feet bed using the traced pattern of my foot. Then choose one person in your group and trace their foot to make a 3 ft by 6 ft bed using their foot. Are the beds the same size? Why or why not?

Explore: As students make their beds, ensure that they are measuring correctly by putting the feet end to end and not leaving gaps or making overlaps. Ask groups questions about their two beds and why they are different sizes.

Summarize: Once students have created their beds, have groups share their findings. Discuss what the apprentice should do to solve the problem.

- Why is one bed bigger than the other bed?
- Did everyone in your group fit in the smaller bed?
- How could you make the smaller bed the same size as the bigger bed?
- What could the apprentice do to fix this problem?

Finish reading the story, then explicitly explain that you need more smaller units (feet) than larger units (yards) to measure a line, showing the standard units of measure. Ask students to explain to a partner or in their math journal what happens why it takes more units to cover a space than smaller units.

Extension Ideas:

- Determine the best measuring tool to measure large and small objects around the room
- Make rulers using inch-tiles

Thank you for using one of our Picture Book Tasks! We would love to know more about your students' strategies when solving the problem, ideas you had for improving the task, and other math problems you and your students noticed or wondered about after reading the book.

Please complete our [Picture Book Task Survey](#) so that we can learn more about your experience teaching, how students solve problems, and improve our Picture Book Task Bank.