

A Handy Measure

Standards of Learning

Math K.10, 1.9, 2.11

Objective

Students will:

- Be able to use nonstandard units as well as a ruler/yardstick to measure height.

Materials

- masking tape
- yardsticks
- construction paper
- scissors
- A Field Full of Horses by Peter Hansard (optional)

Background Knowledge

Horses helped settle the “New World,” and they are still important today. Early horse traders found it was easier to use their hands to measure horses than to carry around measuring sticks. They would count hand-widths from the ground to a horse’s withers, the high part of its back, between the shoulder blades. A horse is generally 14.2 hands (14 hands and 2 inches) or taller. Anything shorter than 14.2 hands is considered a pony.

This activity provides a great opportunity for your students to learn about measurements since you will be talking about inches. There are many different types of measurements such as those for volume, area, and length and this is something that you will want your students to know. When you start talking about inches then you can get into feet and how there are 12 inches in a foot. This can further go into the fact there are 3 feet in a yard so how many inches are there in a yard? This can be a fun guessing game for your students before they actually use a measuring stick to find out how many inches are in a foot, feet in a yard, and inches in a yard. You may also want to ask your students how many inches they think are in 14 hand widths, but it is important to remind them that everybody’s may not be the same because they all have different sized hands. This activity brings a lot of experiment to classroom for students to learn with numbers.

Procedure

1. Read the book, A Field Full of Horses to students. Discuss how a horse is measured using hands. *If the book is unavailable you may share the Background Knowledge above, instead.*
2. Along a wall, measure 14 hand widths and 2 inches from the floor. Place a piece of masking tape to mark the height.
3. Explain to students that the tape represents the usual height of a horse. Label the tape accordingly.
4. Divide students into pairs to measure each other’s heights.
5. One student should stand with his/her back to the wall while the other marks the height with a piece of masking tape. Have students label each piece of tape with his/her name.
6. Use a yardstick to measure the height from floor to tape marker. Record this data.
7. On a piece of construction paper have students carefully trace their hands. Have students estimate how many hands they think will be necessary to measure their height.
8. Have each student trace and cut as many hands as needed to measure his/her height.
9. Allow students to tape hands to the wall from floor to tape marker to visually display their heights.
10. Discuss whether or not students’ predictions were correct.

Extension

Have students estimate the length, height, and width of classroom objects using hands or inches. Then have them test their predictions.

References

Lesson adapted from Oklahoma AITC

