

Estimate then Exact

Drawing Diagrams - Lesson 2



For the Classroom:

- Group structure - small group
- Location - school garden, where okra is growing
- Approximate time - 20 minutes

Standards:

- CCSS.MATH.CONTENT.2.MD.A.3. Estimate lengths using units of inches, feet, centimeters, and meters.
- CCSS.MATH.CONTENT.2.MD.A.1. Measure the length of an object by selecting and using appropriate tools such as rulers, yardsticks, meter sticks, and measuring tapes.
- CCSS.MATH.CONTENT.2.MD.A.4. Measure to determine how much longer one object is than another, expressing the length difference in terms of a standard length unit.

Materials:

- Journal or paper (1 per child), pencil (1 per child)
- Measuring tapes, rulers, and assorted measuring tools (1 of each)
- Step ladder (1)
- Gloves (2 pairs)



Procedures:

1. Engage:

- a. "One of the reasons okra is special is that it grows taller than most of our plants growing in the garden!"

2. Explore:

- a. "Look at this okra growing! With your partner, choose one okra plant. How tall do you think the stem is? Write your estimate (with units) in your journal." Provide time for children to observe, estimate, and write.
- b. "Now, let's measure. Decide with your partner, which measuring tool you should use and measure from the ground to the top of the stem." Provide time for children to select tools and measure. The students measuring may want to wear gloves and keep some distance from the plant since okra plants can be itchy. They also may need a step ladder to reach the top.
- c. "Write the actual measurement in your journal."
- d. "How close was your estimate to the actual measurement?" Provide time for children to find the difference between their estimate and their actual measurement.
- e. "Put your hand in the air if you'd like to share." Give snaps to the student with the closest estimation to actual.
- f. Repeat for the biggest leaf (in inches), the biggest flower (in inches), and the longest fruit (in inches) on their selected okra plant.

Lesson Created by Jenna Mobley for Georgia Organics