Just In Time Quick Check
Standard of Learning (SOL) 3.7a

Strand: Measurement and Geometry

Standard of Learning (SOL) 3.7a *The student will estimate and use U.S. Customary and metric units to measure length to the nearest $\frac{1}{2}$ inch, inch, foot, yard, centimeter, and meter.*

Grade Level Skills: ● Estimate and use U.S. Customary and metric units to measure lengths of objects to the nearest $\frac{1}{2}$ inch, inch, foot, yard, centimeter, and meter. ● Determine the actual measure of length using U.S. Customary and metric units to measure objects to the nearest $\frac{1}{2}$ inch, inch, foot, yard, centimeter, and meter.

Just in Time Quick Check

Just in Time Quick Check Teacher Notes

Supporting Resources:
● VDOE Mathematics Instructional Plans (MIPS)
    ○ 3.7a - Measuring Length (Word) / PDF Version
● VDOE Word Wall Cards: Grade 3 (Word) / PDF
    ○ Ruler: Centimeter and Inch

Supporting and Prerequisite SOL: 2.8a, 1.10

Virginia Department of Education   August 2020

SOL 3.7a - Just in Time Quick Check

1. What is the length of the marker to the nearest half inch?

2. Use a ruler to measure the length of the toy car to the nearest inch.

3. What is the length of the crayon to the nearest centimeter?

4. Use a ruler to measure the width of a door to the nearest foot.

    a. What door did you measure? _____

    b. What is the width of that door to the nearest foot? _____

5. Use a yardstick to measure the distance from the floor to the doorknob of the same door. What is the distance from the floor to the doorknob to the nearest yard?

    _____

6. Use a meter stick to measure the height of that same door. What is the height of that door to the nearest meter?

SOL 3.7a - Just in Time Quick Check Teacher Notes
Common Errors/Misconceptions and Their Possible Indications

1. What is the length of the marker to the nearest half inch?

Students may report the length to the nearest half inch as 7 inches rather than $6\frac{1}{2}$ inches, indicating the students are measuring to the nearest inch. Students may be rounding up to the next inch since the marker's length is a little more than $6\frac{1}{2}$ inches. Students may benefit from additional experiences using a ruler to measure the length of objects to the nearest inch and to the nearest half inch and discussing the difference.

2. Use a ruler to measure the length of the toy car to the nearest inch.

Students may report the length of the toy car as 2 inches, which may indicate the students are measuring from the end of the ruler instead of from zero. Teachers are encouraged to observe students measuring an object to determine where they start (i.e., the edge/end of the ruler, the zero mark, etc.), where they end, and what the students are counting (tick marks versus unit spaces).

3. What is the length of the crayon to the nearest centimeter?

Students may misalign the ruler and measure from the end of the ruler instead of from zero. Students who use an inch ruler need additional experiences measuring the length of different objects in both inches and centimeters in order to build conceptual understanding of the difference between the units and the measuring tools.

4. Use a ruler to measure the width of a door to the nearest foot.

   a. What door did you measure? _____

   b. What is the width of that door to the nearest foot? _____

Students may have difficulty measuring the width of the door with a ruler since they will need more than one iteration of the ruler to determine the total width. These students may overlap feet as they measure and report a

greater number of feet than the actual width, or they may leave gaps between feet and report fewer feet than the actual width. These students would benefit from additional experiences that require them to use more than one iteration of the measuring tool to determine the length of an object or a linear distance.

5. Use a yardstick to measure the distance from the floor to the doorknob of the same door. What is the distance from the floor to the doorknob to the nearest yard? _____

   Students may report the distance from the floor to the doorknob as 3 yards, which may indicate that students have memorized the relationship between feet and yards but are confusing the units. Students will benefit from experiences using yardsticks to measure lengths that are less than one yard as well as lengths that are greater than one yard.

6. Use a meter stick to measure the height of that same door. What is the height of that door to the nearest meter? _____

   Students may have difficulty measuring the height of the door with the meter stick, as this will require more than one iteration. Students need opportunities to measure a variety of lengths using a meter stick to include lengths that are greater than one meter and lengths that are less than one meter. Students also benefit from measuring the same lengths using a meter stick and a yardstick as they develop understanding of the similarities and differences between and among units within the U.S. Customary and metric systems.

Virginia Department of Education   August 2020