Measure It in Centimeters

Choose a ruler or measuring tape and measure to the nearest whole centimeter

Name: _____ Date: _____

Part 1: Get Ready to Measure

Today every tool is marked in centimeters (cm). A centimeter is the unit you will write.

Use a ruler for a short object that fits beside the ruler.

Example: a pencil or a book.

Use a measuring tape for a long object or an object that does not fit beside the ruler.

Example: a tabletop or a door.

How to measure

1. Put the **0 cm** mark at one end of the object. Do not start at the edge of the tool unless that edge is 0.

2. Keep the tool straight along the object.

3. Read the number at the other end. If the end is halfway or more to the next number, write the next whole centimeter.

Listen: Watch your teacher demonstrate how to measure.

1. Circle the best tool. Then tell why.

Object	Circle one tool	Why?
A bookmark	ruler / measuring tape	
The long side of a classroom table	ruler / measuring tape	

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Part 2: Classroom Measurement Lab

2. Measure each real classroom object your teacher shows you. Work with a partner if your teacher says so.

Before measuring, make a reasonable estimate. Then measure from **0 cm** to the other end. Write the nearest whole centimeter.

Object	Tool ruler or tape	Estimate ___ cm	Measurement ___ cm
Pencil			
Book			
Long side of a table			
Classroom door			

3. Choose one object from your table. How did you make sure your measurement was fair and accurate?

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Answer Key and Teaching Notes

Materials supplied with this task: student pages and this teacher/key page.

Additionally needed: one 30-cm ruler marked in centimeters for each pair; one flexible measuring tape marked in centimeters for each pair; a pencil; a book; access to a classroom table and door; and a teacher recording sheet or clipboard.

Exact setup: Before class, select the pencil, book, one long side of a table, and one classroom door to be measured. Place a small removable mark or sticky note at each intended endpoint if needed. Using the same centimeter tools students will use, measure each object from zero to the intended endpoint and record the nearest whole centimeter. Check that each ruler and tape has a visible 0 cm mark. Put rulers and tapes at a central supply spot. Print and supply all student pages, keeping teacher-key pages separate.

Teacher demonstration script: “Today we measure in centimeters, written cm. I choose a ruler for a short object and a measuring tape for a long object. Watch the zero mark, not just the end of the tool. I put 0 cm at this end, keep the tool straight, and look at the other end. If the end is halfway or more to the next centimeter, I use the next whole centimeter. I write both the number and cm.” Demonstrate on a separate paper strip or another non-task object. Say: “Now watch me check that the zero mark is really at the end.”

Observation method: As pairs measure, observe each student at least once. Mark each criterion: (a) selected a sensible tool, (b) aligned 0 cm with the chosen endpoint, (c) held the tool straight along the length, (d) named and wrote cm, and (e) recorded a nearest-whole-centimeter result matching the teacher's recorded result, allowing 1 cm for endpoint placement. Ask a student who misses a criterion to remeasure after a brief prompt; record the second attempt.

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Answer Key and Teaching Notes (continued)

Answers and scoring

1a. Ruler. A bookmark is short and can fit beside a ruler. Accept measuring tape if the student explains that it was held straight and used accurately; ruler is the best expected choice.

1b. Measuring tape. A long tabletop may be longer than a ruler and a tape can extend along it. Accept a ruler only if the student explains a careful repeated-length method, but reinforce that tape is more efficient here.

2. Answers vary because actual classroom objects vary. For each row, accept the tool, estimate, and nearest whole measurement when the measurement agrees with the teacher's premeasured value within 1 cm and the student writes cm. Expected sensible tools: pencil - ruler; book - ruler; long side of table - measuring tape; classroom door - measuring tape. An estimate is acceptable when it is a plausible positive whole number of centimeters; it need not match the final measurement.

3. Sample satisfactory response: “I put the 0 cm mark at one end. I kept the tape straight. I read the number at the other end.” Award credit when the student describes zero alignment and at least one additional accuracy action, such as keeping the tool straight or reading the far endpoint.

Source credit: New York State Next Generation Mathematics Learning Standards, NY-2.MD.1. The standard asks students to measure an object's length to the nearest whole unit by selecting and using suitable tools, including rulers, yardsticks, meter sticks, and measuring tapes. Task standard page: https://lessonmakerpro.com/standards/ny-nextgen-math/ny-2-md-1