

Math Moments that Matter

SECOND GRADE

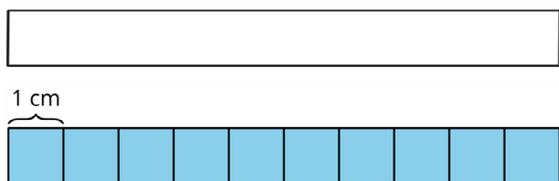


Measurement Using Standard Units

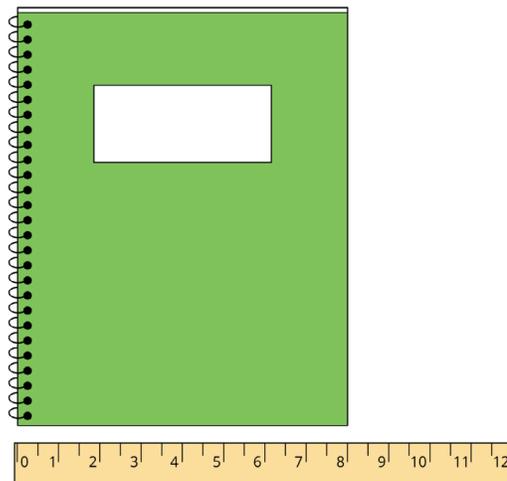
In 2nd grade, students build an understanding of measurement by using familiar standard units such as inches, feet, centimeters, and meters. They measure, compare, and estimate the lengths of close, reasonable answers using tools such as rulers and meter sticks. Through hands-on practice, students learn that measuring means using equal-sized units and paying attention to where they start and stop (starting at zero).

Students use tools like centimeter cubes (small cubes measuring 1 centimeter each), rulers, and number lines— to measure and compare lengths. In the first image, students line up centimeter cubes to measure. In the second image, a ruler helps show how long an object in inches. Using real tools and showing their thinking helps students understand measurement in clear, meaningful ways.

EXAMPLE: *Measuring with centimeter cubes*



EXAMPLE: *Measuring length with a ruler*



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Communicating Reasoning in Math

When students measure and compare objects, they're learning to explain their thinking. As they talk about how they measure, why their results make sense, and how they use their tools, they build reasoning and communication skills. They learn to:

- Explain how they measured and why they chose a certain unit
- Compare and discuss results to see what makes sense
- Listen to others' ideas and adjust their thinking
- Use math language like, "I started at zero" or "It's longer by three centimeters."
- Explain their reasoning: "This one is longer because it's 12 cm and the other is 10 cm."

Sharing their ideas helps students connect tools, data, and reasoning.

What You Might See in the Classroom

Students using rulers, yardsticks, measuring tapes, or centimeter cubes to measure and compare.

Teachers asking:

- “How did you make sure your measurement was accurate?”
- “Why do we start at zero?”
- “Which one is longer?”

Students recording and comparing measurements (writing numbers, drawing pictures, or using charts) in inches, feet, or centimeters.

Students solving story problems about how much longer or shorter one object is.

Students discussing why it’s important to use the same size unit.

What You Can Do at Home

Measure real items: “How many inches long is this book?”

Ask: “How do you know your measurement is correct?”

Try it: “Measure your shoe and my shoe. Whose is longer?”

Connect ideas: “The table is 40 inches, and the chair is 18 inches. How much taller is the table?”

Talk it out: “What happens if we use different tools to measure the same object?”

Make it a Math Moment!

Everyday moments are math moments. When students explain how they measured and why their answer makes sense, they’re learning to communicate clearly and connect measurement to real life.

