

Measure Me This

YM | YOUNG
MATHEMATICIANS

Players 2+



Ages 3–8



10 min

GOAL

The goal of this game is to estimate and measure height using everyday household items.

MATERIALS

Tape, yarn, or other objects (utensils, paperclips, straws, etc.)



Measuring tape or ruler



VOCABULARY

Length

Width

Long/short/tall

Estimate

Measure

QUESTIONS

How do you know how tall you are?

What are other materials we could use to measure?

How close were you to your estimate? The same, taller or shorter?

How can you improve your estimate next time?

When else might we estimate?

HOW TO PLAY

1. Pick the material that you will use to measure.
2. **Make an estimate:** "How much of these materials do you think

you'll need to make them as tall as you?" You can show the child a few examples to help them visualize and decide.

3. **Compare.** Once children have made their estimate of how much string or yarn or tape is as tall as they are, compare their estimate to their actual height. "Let's compare how long this yarn/string/tape is to your height. How close was your estimate? Are you the same, taller or shorter than your estimate?"



4. **Extension.** Using a standard measurement tool such as a measuring tape or ruler, to find out how tall the child is in feet, inches, meters, or centimeters.
5. Next, take the item used to measure your child's height in standard units and lay it next to the materials the child used to estimate or guess their height. Compare the two and discuss:
 - Are the materials and the standard measurement the same length?
 - If not, which was longer? Which was shorter?
 - How close was their estimate to the standard unit of measurement?
6. **Talk About Math:** Engage the child in a discussion about math in the game. For example:
 - How do we measure things?
 - What is the difference between their estimate and the standard measurement?

- How can they improve their estimate next time?

TIPS FOR PLAYING

- You can introduce the idea of reasonable guesses or estimates that “make sense” by using exaggerated examples. “What if I said you were 100 books tall?”
- Start with smaller examples. Before asking children to estimate and measure their own height, have them practice with smaller objects. For example:
 - Ask them to guess the length of a book, a shoe, or a spoon.
 - Measure the standard length of these objects with a ruler or measuring tape to compare their guesses.
 - Discuss the difference between their estimates and the standard units of measure.
- **Use a variety of materials:** String and tape make the measurements easy to see, but you can also play this game using other objects. How many shoes are you tall? Or how many books or how many stuffed bears. When you are using objects to measure, make sure the objects are all the same size. If you only have one of the objects, you can have the child lay on the floor and rotate the object from end to end to see how many it would take.
- **Practice comparing lengths:** Invite children to find objects around the home that are the same length, shorter, or longer than their own height. For example: “Is the table taller or shorter than you?” or “Can you find an object that is about the same height as you?”
- **Encourage conversation:** Ask open-ended questions throughout the activity, such as:
 - “Are the materials and the standard measurement the same length?”
 - “Why do you think this material is a good choice for estimating your height?”
 - “What did you notice about your guess compared to the actual measurement?”

- Once you play several times, you can play that the person whose estimate was the closest to the actual measurement wins!

WHAT CHILDREN ARE LEARNING

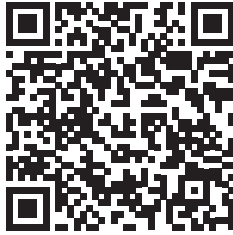
- This game introduces children to the idea of estimating or making reasonable guesses. This is an important skill that children will use in later mathematics and everyday life. Discuss with your child other times when you estimate such as estimating how far they can jump or when you are cooking.
- **When children are practicing estimation, they are:**
 - Developing their ability to make educated guesses about length or height.
 - Learning how to approximate sizes and compare objects without directly measuring.
 - Gaining confidence in using math in everyday contexts, such as visualizing dimensions.
- **Children who familiarize themselves with measuring skills are:**
 - Building an understanding of standard units of measurement (inches, feet, centimeters).
 - Practicing using tools like rulers or measuring tapes to find accurate measurements.
 - Strengthening their ability to compare and analyze differences between objects' sizes.
 - Learning foundational math concepts, such as addition, subtraction, and spatial reasoning, when they compare lengths or combine measurements.
- If you choose to use a standard measuring tool such as a ruler or tape measure, be sure to start your measurement at the 0, the origin, not at 1. This is a common misconception for young children and it's important to help them know where to start measuring from.
- Children are also introduced to the idea of standard units of measure and start to see that everything around them can be measured and described in terms of inches, centimeters, feet, etc.

MATH TOPICS

Number: Counting and Cardinality

Measurement

VIDEO



Watch Game Video

View the QR code in your smartphone's camera app or QR code reader to watch a video that shows how to play *Measure Me This*.