

Math About Me!

Use your own name and attributes to explore measurement.

Big Idea

Students will explore different nonstandard measurement tools and use them to compare length and width of their names, hands, and feet.

Illinois Early Learning Standards

<p>6.D.ECb Describe comparisons with appropriate vocabulary, such as “more,” “less,” “greater than,” “fewer,” “equal to,” or “same as.”</p>	<p>Students will make direct comparisons between the different measurements of their names using language indicating size and ordering.</p>
<p>7.A.ECb Use nonstandard units to measure attributes such as length and capacity.</p>	<p>Students will utilize links, Unifix cubes, and yarn to explore measurement and comparisons.</p>
<p>7.A.ECc Use vocabulary that describes and compares length, height, weight, capacity, and size.</p>	<p>Students will describe length of their hands, feet, and names, and explore differences between sizes through gloves.</p>

Materials

- Unifix Cubes
- Paper
- Pencils
- Nonstandard measuring tool, such as links, bottle caps, paper clips, etc.
- Yarn
- Scissors
- Gloves in a variety of sizes

Setup

This lesson will utilize four different stations. Students will graph their name with Unifix cubes; use the nonstandard measuring tool, paper and pencils to measure the length of their hand; measure their foot in different ways using yarn, scissors, paper and pencil; and students will explore size by investigating gloves of different sizes.

Directions

How long is your name?

- For each letter in the child’s name, take one Unifix cube. Connect the cubes and count again, making sure there is one cube per letter. They can do first name and last name depending on the number of cubes available. Then, students can use their lines of Unifix cubes to compare and identify who has

the longest and shortest names. Students can also investigate if anyone within the group has the same number of letters.

How long is your hand?

- Here, the students will use a manipulative such as links to measure the length of their hand.
- Have the students hold their hand perpendicular to the table, so that their pinky is resting on the table and their thumb is pointed to the sky, with all fingers touching. From the tip of their middle finger to the bottom of their palm, students can line up the links and eventually count how many links are needed for the length of their hand.
- Alternatively, students can trace their hand and use the links to measure the distance from the tip of their middle finger to the bottom of their palm using the tracing they've created.
- Again, students can investigate the differences in sizes between the hands. Extend the activity by questioning if there are problems with this measurement tool. Is it exact? Is there a way it can be improved? Does the answer change if you face the links horizontally versus vertically?

How long is your foot?

- Each child can get a length or ball of yarn to use. They will use the yarn to measure the different lengths and widths of their foot. They can either use paper and pencil to trace their foot, or they can use their foot directly as their guide. Using the yarn, students should measure their feet in three different ways: the perimeter, the width, and the length. The perimeter should wrap around the entire foot exactly one time. The width should be measured straight across (not in a diagonal) at the widest part of their foot. The length should be measured straight up and down at the longest part of their foot (from the second toe to the bottom of their heel).
- Students can compare and observe how there are multiple ways to measure one thing, and investigate what way of measuring their foot is the longest and which is the shortest. This can be extended by asking if these observations are true for all feet. Does that include animal feet? What can we learn by knowing how long our feet are?

What fits?

- Students will explore different sized gloves to discover which one would best fit their hand. Encourage students to make predictions about whether the glove will fit their hand by having them hold the glove next to their hand before they put it on. Does the same glove fit everyone's hand best? Does the glove have to

be the exact same size as your hand for it to fit comfortably, or should it be slightly bigger? What happens if the glove is too big for their hand?

Investigation Questions:

- How tall is your name? Let's count each cube.
- How long is your hand?
- How long is your foot?
- How many links does it take to measure you hand?
- How wide is your hand?
- How wide is your foot?
- Which glove do you think will fit your hand? Let's test your prediction. Let's hold it up against your hand before you put it on.