# Measuring with Preschoolers

Adults must guide and support young children’s understanding of non-standard units of measuring and comparing so that children build important math concepts. *(EI 11.3 Measurement; 5.1 Vocabulary)*

<table>
<thead>
<tr>
<th>Why Measure?</th>
<th>Can preschoolers use rulers, measuring tapes, scales, clocks?</th>
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<tbody>
<tr>
<td>Measuring is an abstract concept for preschoolers, but young children are naturally interested in measurement (Pecaski McLennan, 2014). Often times, they want to answer questions in their daily lives like, “Am I taller than you?” Preschoolers can learn measurement skills when adults provide hands-on activities, while also stressing the reasons behind why various things are measured. Why do we measure? To compare items, to track changes, to build, or make certain things. Recipes are used to measure ingredients, so a cake always turns out a cake.</td>
<td>Before learning to use standard measurement tools like rulers and tape measures, preschoolers can explore and compare measurement traits (height, width) using familiar objects or nonstandard measuring tools (like crayons, thumbs) (NAEYC, 2015). Preschoolers are expected to understand and use general measurement words and concepts, such as same/ different, longer/shorter, louder/softer, harder/softer, heavier/lighter, full/empty. Adults can encourage children to explore and play with both standard (e.g., ruler or scale) and non-standard (e.g., yarn or blocks) units of measurement.</td>
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## Measurement Concepts

<table>
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<tr>
<th>Comparison</th>
<th>Ordering</th>
<th>Estimation</th>
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| • Finding a relationship between two or more things or a group of things (e.g., My shoe is smaller than daddy's shoe. My shoe is smallest, yours is bigger, and daddy's is biggest). | • Comparing and ordering objects and events according to measurable attributes (e.g., placing three or more cars side-by-side to determine which is bigger). | • A "good guess" based on something we know and not just a random idea.  
• Valuable in situations where exact measurement is not necessary or possible. |

## Measurement Terms

<table>
<thead>
<tr>
<th>Length</th>
<th>Capacity</th>
<th>Weight</th>
<th>Area</th>
<th>Temperature</th>
<th>Time</th>
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<tbody>
<tr>
<td>How long or tall something is</td>
<td>How much something holds</td>
<td>How heavy something is</td>
<td>How much space is covered</td>
<td>How hot or cold something is</td>
<td>How long it takes to get somewhere</td>
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Ways to Support Measuring with Preschoolers

**Provide Sorting Activities**
Adult models using vocabulary words that describe how objects are:
- longer/shorter
- louder/softer
- harder/softer
- bigger/smaller
- taller/shorter
- heavier/lighter

**Identify Objects of Same Size**
Adult models using vocabulary words that describe how objects are:
- same/different
- similar/alike

**Have Children Explore a Scale**
Questions to Ask:
- Which is heavier?
- Why do you think that is?
- How can the scale be balanced/the same on each side?

**Have Children Measure Height with Blocks**
Model by saying:
- I am as tall as five big blocks
- You are as tall as three big blocks.
- The train with all its cars is as long as seven small blocks

Before children use standard measurement units, they should understand the process of measurement by measuring using nonstandard items.

References:

