

The Path to Math: Measurement with Young Children



There's more to preschool math than counting! Children ages 3-5 may wonder about measuring many things—from how tall they are to how long it takes to walk around the school. They hear adults talk about miles, pounds, gallons, acres, and minutes. They see adults use measuring tools. Measurement activities can help young children understand basic math concepts and learn life skills. (See Illinois Early Learning and Development Benchmarks 7.A.ECb, 7.A.ECc, 7.A.ECd, 7.B.ECa, 7.C.ECa, and 10.A.ECb.)



Include measuring in daily routines. Children can ...

- Refill food and water supplies for classroom pets (and chart how much they eat).
- Use teaspoons and measuring cups to help make and hand out snacks.
- Use timers to help with turn taking (for example, when working on the computer or sharing popular toys).
- Check a rain gauge or thermometer and report results to the class.



Provide games that use some measuring skills.

- Teach games involving distances (hopscotch, tag, beanbag toss, Candyland).
- Use a stopwatch or timer for relay races and other games.



Offer other activities related to measuring.

- Provide measuring tools (trundle wheel, ruler, eye dropper, balance, clock) for children to study or to use in dramatic play.
- Help children use nonstandard items (hands, thick string, shoes, unit blocks) to describe the sizes of furniture, block buildings, playgrounds, and each other.
- Offer geoboards, nesting toys, gears, interlocking blocks, stacking toys, mosaic tiles, and fabric squares for “choice time.”
- Provide clear tubes and containers for sand and water play.
- Offer specific amounts of paint. “Can two tablespoons of finger-paint cover your paper? What do you predict?”
- Invite children to volunteer to let classmates guess their weight, then check their estimates using a scale. Help chart their guesses and findings. Do they notice changes in their accuracy?
- Help children notice sizes when they make costumes or doll clothing. Invite them to create scale models of objects from clay, wood scraps, boxes, or papier-mâché.



Invite children to think about measurement.

- Use the language of measurement: *unit, fill, load, balance, meter, area*. Ask children to compare: wide/narrow, heavy/light, far/near, now/later.
- Use children's questions to launch in-depth studies of how and why people measure things. “Do all lunchboxes hold the same amount of stuff?” “How much does the paper we are recycling weigh?”
- Help children survey adults about what they measure at home and on their jobs.



For related Web resources, see “The Path to Math: Measurement with Young Children” at <http://illinoisearlylearning.org/tips.htm>.

Any opinions, findings, conclusions, or recommendations expressed in this tip sheet are those of the author(s) and do not necessarily reflect the views of the Illinois State Board of Education.



29 Children's Research Center
University of Illinois at Urbana-Champaign
51 Gerty Dr. • Champaign, IL 61820-7469
Telephone: 217-333-1386 • Fax: 217-244-7732
Toll-free: 877-275-3227
Email: iel@illinois.edu
Internet: <http://illinoisearlylearning.org>

Illinois State
Board of Education