

Out and About with Preschoolers: Science in the “Built Environment”



It's a beautiful day to be outdoors with the children. But is there any way to help them meet science benchmarks while outdoors? Yes, there is! Go ahead—take those young engineers outside!

Shelters. Fences. Pathways. Bridges. Outdoors you'll find many opportunities for preschoolers to study the “built environment”—the structures around them that people have made. Here are some ways for your class to learn about some of the basic ideas of architecture, civil engineering, and construction. (See Illinois Early Learning and Development Benchmarks 11.A.ECb, 11A.ECd, 11.A.ECf, 12.C.ECa, and 12.D.ECb.)



Look around!

- Give children a few minutes to choose buildings or other objects outdoors and examine them closely, noticing parts, appearance, textures, and patterns.
- Provide magnifiers for close observations. Invite the children to draw what they see.
- Ask, “Do you think this thing was made by people? What makes you think so?” Keep track of their ideas.



Take a longer look!

- Watch roadwork or other construction projects. Help the children list the materials and machines the workers use. They might draw or photograph the work in progress.
- Collect construction materials for the children to explore: lumber, metals, concrete, tile, rock, fabric, paint, a variety of fasteners.



Build!

- Invite children to plan and build a sandbox town. Provide child-sized, authentic tools (shovels, buckets, etc.) and pieces of plastic pipe, wood, and other materials. Photograph the finished city.
- Help the children experiment with ways to make constructions durable. “How much water does it take to erode this sand castle? What are some ways to protect it?” “What’s more stable, a tall thin tower or a tall wide tower?”



Think about it!

- The most basic questions can engage children: “What are some things that a wall does?” “Do workers start building at the top, the bottom, or in between?” “What if the school had just one window?”
- Invite children to think about construction problems: “Why don’t they build fences of paper instead of wire?” “Where could they build a wheelchair ramp so everyone could get to the door?” “How is this swing set put together?”



For related Web resources, see “Out and About with Preschoolers: Science in the ‘Built Environment’” 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>

