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## BACK TO BASICS

# Woodworking

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Woodworking activities have natural appeal in early childhood classrooms. Through rich sensory experiences with tools, wood, fasteners, and related materials, carpentry activities offer children opportunities for authentic exploration of construction techniques and skill mastery across developmental domains.

When children work with tools in the carpentry center, they are able to demonstrate increasing competence, emotional regulation, coordination, and muscle control. They will discover pragmatic uses for math functions like line exploration and measurement, and will also discover opportunities for creativity, problem solving, logic, and cooperation.

### Guidelines for woodworking

Follow these broad guidelines as you set up and maintain a woodworking center.

- **When children work with tools, distractions can be dangerous.** Help children focus on their work

by placing the woodworking center in a clearly defined corner space, away from the flow of classroom traffic. A 3-foot by 5-foot space is usually adequate for two children to work together.

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### MAKE SURE YOU AND THE CHILDREN KNOW HOW TO USE EACH TOOL.

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- **Provide storage for tools and other materials.** Many carpentry centers include a wall-hung pegboard for tool storage. Outline the shape of each tool on the pegboard so the children can return tools to their proper places and you can identify missing tools at a glance. Store hardware and other materials in covered and labeled plastic bins.



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- **Make sure you and the children know how to use each tool.** Insist that children use tools only for their intended purposes—hammers are for driving nails and sandpaper for smoothing wood, for example—and only in the woodworking center.
  - **Consider safety and the developmental skills of the children as you plan carpentry experiences.** Introduce each tool and the proper way to hold and manipulate it. Supply eye-protecting goggles and insist on their use. Encourage children to persevere in their attempts: It may take several days for children with inexperienced muscles and limited coordination to saw through a piece of lumber—but the final success is worth celebrating.

## Carpentry center basics

**Workbench.** The work surface must be sturdy and heavy enough that it doesn't move while children are hammering and sawing. The top surface should be at least 4 feet long and 2 ½ feet wide and made of hardwood, preferably maple.

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DISCOVER OPPORTUNITIES FOR CREATIVITY,  
PROBLEM SOLVING, LOGIC,  
**AND COOPERATION.**

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**Vise.** Mount a vise to one end of the workbench to hold wood securely. A vise or clamp allows children to use both hands while sanding wood or drilling holes. Insist that the children use the vise when sawing wood.

**Wood.** Provide wood scraps in various sizes and shapes. White pine and poplar are easy for children to use. Yellow pine is knotty and hard—avoid it. Substitutes for wood include fiberboard (like Celotex®), acoustical tile, and Styrofoam®.

**Saws.** Provide a steel backsaw with 10 to 14 teeth per inch. Remember: A dull saw is more dangerous than a sharp one because it takes more force to use.

**Hammers.** For preschoolers, buy steel-shank, curved-claw hammers that weigh 10 ounces. School-age children can usually control a 13-ounce hammer. Show the children how to hold the hammer near the handle end for maximum leverage and minimum arm strain.

**Eggbeater drill and bits.** Children with experience and skill in the carpentry center will appreciate a drill and drill bits. Avoid bits that are smaller than ⅛ inch because they break easily and frustrate young carpenters.

**Sandpaper.** Provide sandpaper in three grades—coarse, medium, and fine. Sandpaper wrapped around a wood block or blackboard eraser is easier to use than a flat sheet.

For more information on setting up and using a woodworking center, see “Woodworking: A constructive learning center” by Cathy Abraham in the Winter 2011 issue of the *Texas Child Care Quarterly*, [www.childcarequarterly.com/winter11\\_story4.html](http://www.childcarequarterly.com/winter11_story4.html). ■