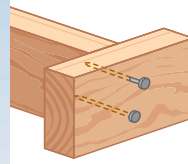


## Framing

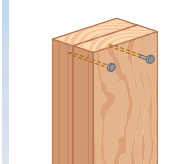
Framing is one of the most satisfying phases of a building project. Using basic tools and materials, you'll assemble the skeleton of the structure, piece-by-piece, and in the process learn the fundamentals of carpentry. The style of framing shown here is standard 2 × 4 framing, also called *stick framing*.

The tools you'll use for most framing are the circular saw (and power miter saw, if you have one), framing square, level, chalk line, and, of course, a framing hammer. Nails used for most framing are called common nails. These have a larger diameter than box nails, making them stronger, but also more likely to split thinner stock. Box nails are better for siding, trim, and other non-structural materials. The three most commonly used nailing techniques are shown in the TIP to the right. Some framing connections, such as where rafters meet wall plates, require metal anchors for increased strength.

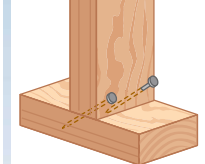
### TIP: NAILING TECHNIQUES



Endnailing



Facenailing



Toenailing

## Floor Framing

Floor frames for sheds are simple versions of house floor frames. They have outside, or *rim*, joists that are set on edge and nailed to the ends of the common joists. Gazebos have floor frames similar to decks, with angled joists that are connected to support beams with joist hangers (see TIP, page 381). On top of floor frames, a layer of tongue-and-groove plywood (or decking boards, for a gazebo) provides the floor surface and adds strength to the frame. To prevent rot, always use pressure-treated lumber and galvanized nails and hardware for floor frames.

### HOW TO BUILD A SHED FLOOR FRAME

#### Step A: Cut the Joists & Mark the Layout

1. Cut the two rim joists and the common joists to length, making sure all ends

are square. Note that rim joists run the full length of the floor, while common joists are 3" shorter than the floor width.

2. Check the rim joists for crowning—arching along the narrow edges. Pick up one end of the board and hold it flat. With one eye closed, sight down the narrow edges. If the board arches, even slightly, mark the edge on the top (convex) side of the arch. This is the crowned edge and should always be installed facing up. If the board is crowned in both directions, mark the edge with the most significant crowning.

3. Lay one rim joist flat on top of the other so the edges and ends are flush and the crowned edges are on the same side. Tack the joists together with a few 8d nails. Turn the joists on-edge and mark the common joist layout on the top edges: mark 1½" and 15¼" from the end of one joist. Then, measuring from the 15¼" mark, make a mark every 16"—at 32", 48", 64" and so on, to the end of the board (if the plan calls for 24" spacing, make a mark at 1½" and 23¼", then every 24" from there). Don't worry if the last space before the opposite end joist isn't as wide as the others. Make a mark 1½" in from the remaining end. After each mark, draw

a small X designating to which side of the line the joist goes—this is a handy framers' trick to prevent confusion. This layout ensures that the edges of a 4-ft. or 8-ft. board or sheet will fall, or *break*, on the center of a joist.

4. Using a square, draw lines through each of the layout marks, carrying them

### TOOLS & MATERIALS

- Basic tools (page 18)
- Circular saw
- Square
- Pressure-treated 2 × lumber
- 8d and 16d galvanized common nails
- ¾" tongue-and-groove exterior-grade plywood



A. Tack together the rim joists, then mark the joist layout. Use a square to transfer the marks to the second rim joist.