

Build a Simple Shed: a Complete Guide

Here's a solid little shed I built in my backyard.

It's essentially an 8-foot cube, which is just the right size to store a bunch of bikes, a lawnmower, wheelbarrow, and all my lawn and garden tools.

The design is relatively simple and I was able to complete it for about \$1200.

If you're interested in building a similar shed, this documents every detail of my process from the ground up. If you happen to have a slightly sloped lawn like I do, I'll show you how I worked around that too.



Step 1: Some Considerations

Local Regulations

Before you get too serious about building a shed, be sure to check with your local government to make sure you will be in compliance with any regulations regarding the building of a structure like this.

In the city where I live, my 8x8x8-foot shed is considered an "accessory structure" and did not

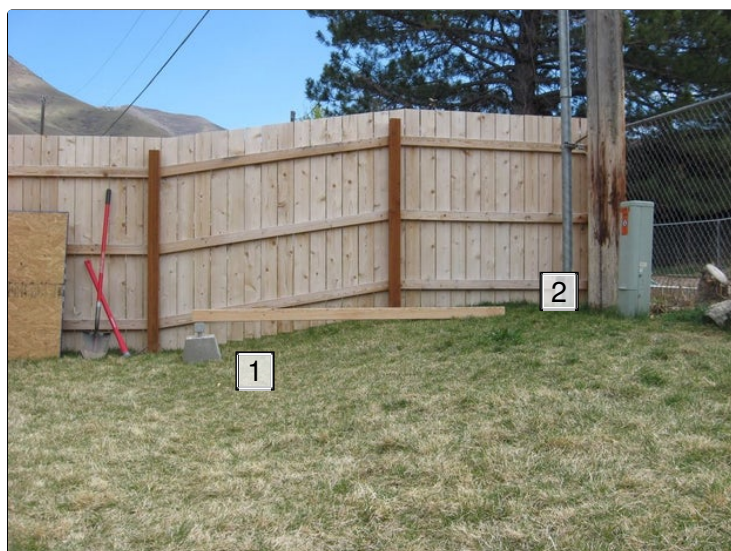
require a permit to build because it is 120 square feet or less, 8 feet tall or less, and not wired for power.

If you plan to do any digging you need to call the applicable buried utilities hotline in your area and have the various companies come out and mark where their lines run. It's free, painless, and required in most locations.

Design and Budget

My goal was to build a shed that would be rock-solid and long-lasting, with a design that fully maximized my dollars-spent by taking advantage of common dimensions in building supplies . . . hence the 8-foot sizing. (As a side benefit, this design yields very little waste.)

I wanted to keep this around \$1000. However, due to the additional supplies needed to build on my sloped lawn and because of a few upgrades, I ended up spending a little over \$1200 on the materials for this.



1. Scoping out a spot. I had about a 12 inch rise to overcome. Anything more than that, and I probably would have cemented posts into the ground to support the elevated portion of the shed.
2. Buried cables! I was advised by the utility people that the cables would be about 18" deep at minimum though, and I wouldn't even get near them with the couple of inches I was removing for the foundation blocks.

Step 2: Supplies & Tools

This is a brief look at the supplies that were needed to build this. Not *everything* is listed here (full details are contained in the individual steps) but this will give you a basic idea of what was used:

- Fourteen 2x6 pressure treated 8-foot boards
- About 50 8-foot 2x4s
- Two sheets 23/32" tongue and groove OSB
- Four sheets 7/16" OSB
- One 4x6 pressure treated post (I needed this for my sloped lawn)
- Ten 2x6 joist hangers
- Eight SmartSide siding panels
- Landscaping garden blocks and anchor pier blocks
- One cartridge of landscaping adhesive
- Several cartridges of Dynaflex 230 caulking
- Three packages of shingles
- Roll of roofing paper
- Four 10-foot drip edges
- One cartridge of roofing cement
- Paint: one gallon of main color, one gallon of trim color
- One gallon of Deck Restore paint for interior floor
- Hinges and door hardware
- Large variety of fasteners (screws, nails, bolts, etc.)

Here are the basic tools required to build a shed like this:

- Circular saw (make sure it has a tilting base plate). I have [this Makita one](#), which has been awesome
- Corded drill
- Cordless drill/driver (again with Makita, I have [this drill](#) set and really like them)
- Framing square
- Sawhorses (I built [these](#), all design credit to Matthias Wandel)
- Large level
- Hammer and apron/tool belt
- Painting supplies
- Tape measure
- Rubber mallet
- Pick mattock and shovel

Useful tools to have, but not necessary:

- Hammer stapler for roofing paper (I bought [this one](#))
- Reciprocating saw or jigsaw
- Air compressor with small brad nailer or stapler (very helpful for trim work)
- Table saw
- Power miter saw



1. This pressure treated stuff wasn't used for this project.

Step 3: Mini Instructable: How to Screw Stuff Together

I used primarily screws for the entire assembly of my shed (even for framing the walls), and I highly recommend the average weekend builder do likewise. Here's why:

For the average DIY-er, way up on the list of must-have tools are a decent corded drill (for drilling holes) and a decent cordless drill/driver (for driving screws).

These two tools are almost universally needed for any type of project, and are more than sufficient for building a small shed like this.

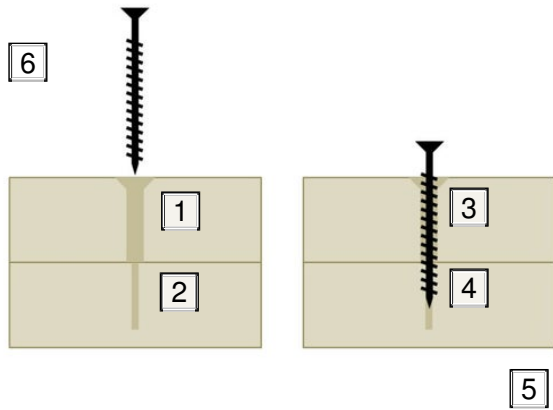
Using screws may take longer when framing versus using a hammer and nails or a nail gun, but you'll make up the difference in how forgiving they are once you make your first mistake and have to take something apart!

So . . .

Before we get started, let's take short detour to briefly go over how to properly fasten things together with screws.

See diagram above for the basics of fastening with screws.

See photo for the style of bits you should get if you don't already have some. This type of bit is a little pricey, and I don't recommend them general purpose drilling--only drilling holes for fastening screws.



1. Through the first board, you want a clearance hole, where the threads of the screw DO NOT bind at all. The threads should pass through this hole freely.
2. Into the second board, you want a pilot hole that is (generally speaking) about the diameter of the screw shaft minus the threads. The screw threads will bite into the walls of this pilot hole, and once the head of the screw meets the first board, the two boards will be sucked together. The pilot hole prevents splitting in the second board. For softer woods, like pine, you can sometimes get away without drilling pilot holes, but it's typically good to drill them.
3. Threads not biting. This is the main thing newbies do wrong. The screw must NOT bite into the first board at all.
4. Threads biting.
5. Now, wouldn't it be nice if there was a drill bit that performed all three functions at once...
6. The two boards to be joined are positioned as desired, and pre-drilled as shown:



1. Ta-da! Countersinking tapered bits. The upper, untapered portion of the shaft creates the clearance hole, and the tapered part creates the pilot hole. The countersinking portion is adjustable so you can set the length of the bit as needed, as well as the depth of the countersink for the head of the screw.

Step 4: Lay Foundation Blocks

A small shed like this can just rest on the ground, but it is wise to first create level, firm contact points made from concrete pavers or landscaping blocks.

For an 8x8-foot layout, I recommend placing solid contact points at the corners and at the midpoints along each wall.

I have about a 12-inch slope where I wanted my shed, so I put the upper half directly on blocks buried just slightly in the ground, and the other half up on elevated risers bolted to concrete pier blocks, similar to how a low deck would be built. (There are region-specific regulations on these things, so your needs/requirements may vary.)

This step covers the installation of my upper level blocks, but if you have a fairly even area to begin with

the method shown here can be used to lay out *all* of your ground blocks.

The blocks I used for this are 12" by 8" "Olde Manor" garden blocks from Home Depot. These looked the most beefy and substantial, so these are what I chose to use.

The photos and photo notes cover the details of placing these blocks. The trick is to make sure they are all *precisely located as needed*, perfectly level with each other, and firmly set on compacted material.

This is a backbreaking step, but should not be rushed or done halfheartedly.



1. Lay out blocks beginning with the highest spot. Be sure to take into account the platform frame size and measure accordingly.



1. Mark locations for blocks with spray paint.



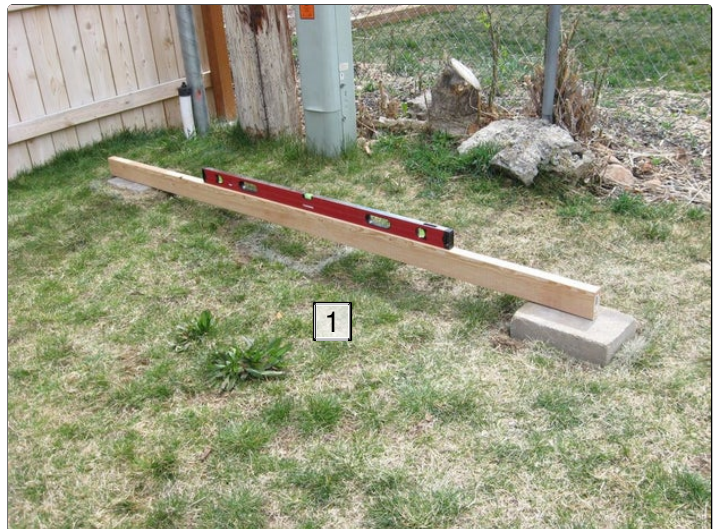
1. I started by first digging out a couple of inches for this back corner block. A pick mattock and the claws of my framing hammer were used for this. To avoid settling issues later on, try to scrape away only enough earth as needed, leaving the bottom of the hole as hard-packed, compacted dirt. Spread a layer of sand or pea gravel in the hole, replace the block and adjust as needed until it is level.



1. Add a layer of sand to help level things out.



1. Make it level. Add sand, pound it down. Repeat until it's perfectly level. Be finicky!



1. When the first corner block is in and level, place the opposing corner blocks, making sure the they are level with the first corner. Add the forth corner, and then add the middle blocks.

Step 5: Pier Blocks and Risers

For the half of my shed that would be elevated, I needed to carefully position the pier blocks that would hold the wooden risers. To do this I built a temporary frame that was the exact size needed to act as a placement guide.

Making a similar temporary frame may be useful if you are building a shed on relatively flat ground, however, carefully measuring corner-to-corner to check for squareness of the layout of your ground blocks should be sufficient.



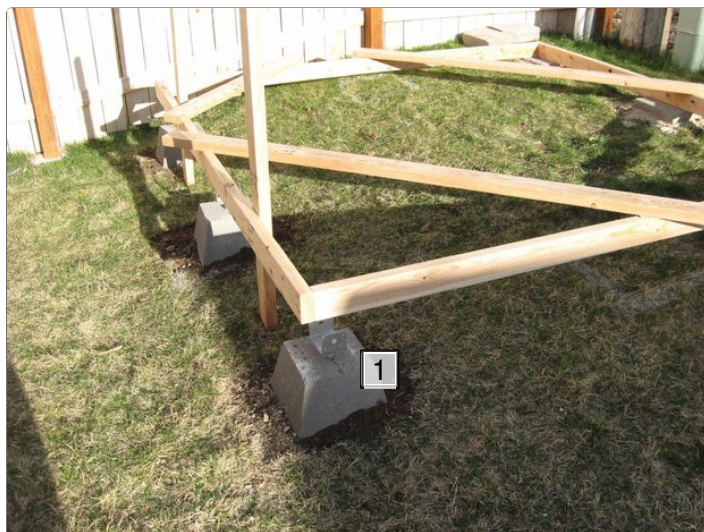
1. Riser posts were made from 4 by 6 pressure treated lumber. These were carefully measured for correct height against the temporary frame and installed into the galvanized brackets in the pier blocks with 6" galvanized 1/2" diameter bolts (with washers and lock washers). Alternately, these risers could have been left longer than needed and trimmed once the outer floor frame was in place. Either way works.



1. Frame was positioned as needed to indicate where to dig for the pier blocks.
2. Be sure to plan for final frame measurements. This temporary frame is actually 93" by 94 1/2", which accounts for the way I doubled up the frame boards later on, but pinpoints the locations of the wooden risers on the lower end.



1. Note these diagonal pieces. These were screwed to the frame to ensure that it stayed perfectly square.



1. Pier blocks were placed as needed to line up laterally with the frame. Height doesn't actually matter, as it will be adjusted for with the wooden riser posts.

Step 6: Floor Frame: Interior Boards

The floor frame and internal joists were all made from pressure treated 8-foot 2x6 boards (trimmed as needed). I doubled up the external boards for added strength and rigidity.

I consciously chose to make this floor very beefy and substantial. You do not want a saggy floor in your shed!

The first layer of boards were fastened as shown here. Where boards were attached directly to the risers I used 3" galvanized 5/16" diameter lag bolts, fastened into pre-drilled holes that were slightly counterbored (so the bolt heads would sit just below the surface of the outer boards).

Everywhere else I used 3" exterior grade screws, fastened into pre-drilled holes.

Where the upper portion of the frame rests directly on blocks I used landscaping adhesive to hold them in place. This same adhesive was used to secure the two blocks on each side that support the frame midway along the slope.

At this point it is critical that the frame is square. Be sure to measure corner-to-corner and adjust the frame as needed until both dimensions are exactly the same.



1. Holes were bored about 1/2" deep with a 1" spade bit prior to pre-drilling for the shaft of the lag bolts.



1. Note the two blocks stacked here at the midpoint. These were glued together with landscape adhesive.



Step 7: Floor Frame: Exterior Boards

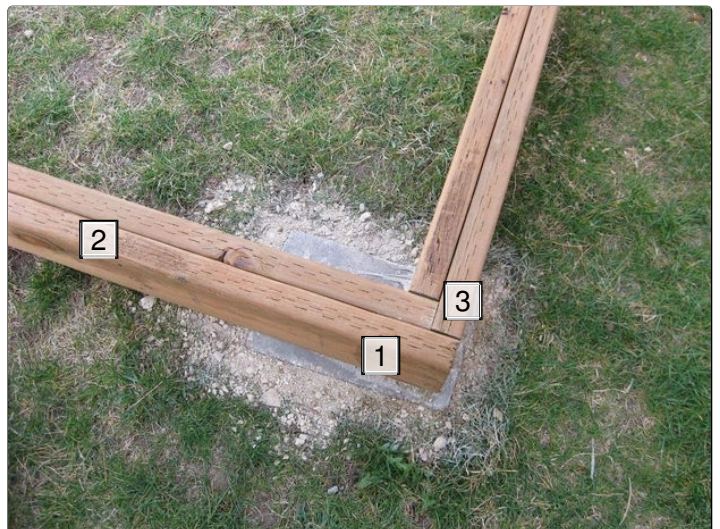
Exterior boards were added to double up the floor frame, lapped at the corners as shown.

Where my frame was attached to the riser blocks I actually fastened this second layer *internally* so the boards tied in directly to the riser blocks.

This required a bit of pre-planning to ensure that the finished frame was exactly 8 feet by 8 feet, but it all came together nicely.



1. Finished frame is exactly 8 feet by 8 feet.



1. Six screws here.
2. Three screws here, and likewise about every 16 inches all the way around the frame.
3. Three through here.



1. Placed internally, rather than externally along this wall.



Step 8: Floor Joists

Galvanized joist hangers were fastened to the frame with galvanized nails every 16 inches.

The joist boards were fastened in place with 3" exterior screws through the joist brackets.

Blocks of 2x6 were then added to the mid section between the joists to provide support to the edges of the floor boards that would meet there. These sections were fastened in between the joists with toe-nailed screws (or would that be "toe-screwed"?)



1. Use a scrap piece of 2x6 to aid in vertical positioning of the brackets.



1. I used 3" exterior screws here, as the galvanized nails I had weren't long enough to be adequate for this part.



Step 9: Floor Boards

Two sheets of 4' by 8' tongue and groove 23/32" OSB were used for the floor boards. These were fastened to the floor frame and joists with 1 1/2" exterior screws placed every 8 inches or so.

The "tongue" of the board that was sticking out over the edge of the frame was carefully trimmed off with a circular saw.

Okay . . .

Some of you may be thinking "Hey man, aren't you concerned about your shed racking (shifting laterally) on those risers?"

Frankly, no, I am not.

Because of the relatively short height of the risers and

the way they are bolted to the frame, I'm very comfortable with this setup.

That said, if I was dealing with a more dramatic slope and needed risers substantially taller than this, I would not be as comfortable with this simple of a solution.

If I was building a shed on a very steep slope (and was not going the route of building a retaining wall and back-filling it to create level spot), I would cement 4x6 posts deeply in the ground, and create a framework of angled supports fastened from the risers to the floor frame.

That would be kind of fun to figure out, but fortunately that is not needed here!



1. The extra "tongue" is trimmed off.

Step 10: Trusses and the Magic Number

When it comes to framing trusses for a simple structure like this, **22.5** really is a magic number.

If you cut something at 22.5 degrees and want to cut a mating piece to go with it? 22.5 as well. Boom, easy!

That oversimplifies things, but let's just go with it.

The building of the roof trusses as well as the walls is

done right on the floor platform. It's basically a large, perfectly-sized work table that acts as a sizing guide as you assembly the components that will ultimately be fastened to it.

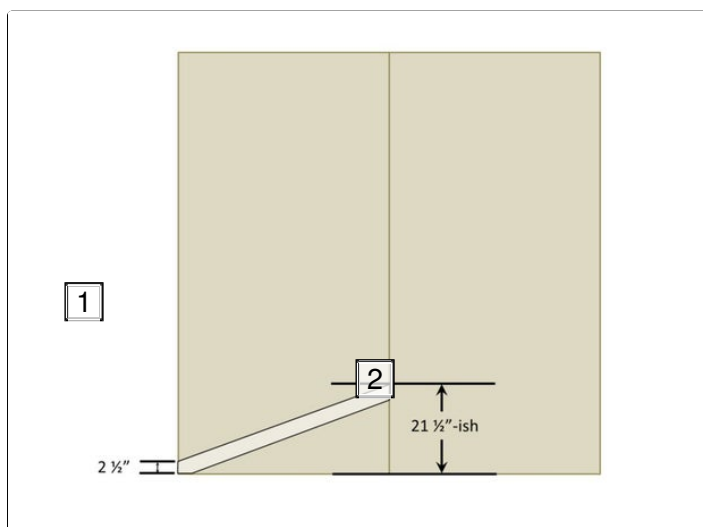
For the roof I went with five trusses laid out 24 inches apart. See diagrams for dimensions and details on building the trusses.



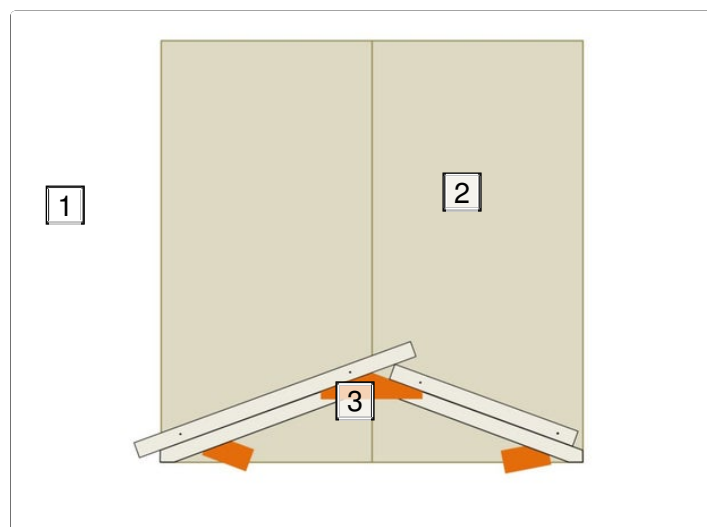
1. These front two will be the tops of the peaked walls.
2. Note there is only one brace on each of these two sections. A couple of screws were used to fasten the peak edges together securely.
3. Back three are the middle trusses. Note orientation of the boards.



1. Begin by trimming the ends of 12 2x4s at 22.5 degrees. If you don't have a speed square, you should get one.



1. Position a pair of the trimmed boards onto the deck as shown (although on both sides). Don't worry about trimming the outer ends yet, just position them according to the measurements.
2. Make sure the two ends join up flush here. Having the joints flush is the key, the measurement noted is just to give a ballpark idea of what you'll be looking at.



1. Screw down a couple of guide boards to ensure that all trusses will be positioned exactly as the first pair you placed. Line up the truss boards, and mark and trim the bottom edges so they are flush and match the corners of the deck. This is done with six boards, for the three middle trusses.
2. I used pneumatic 1-inch crown staples to fasten the braces to the truss boards, but nails or screws could be used. When you fasten the 2nd brace on the opposite side, you will need to prop up the truss ends with some

scrap that is same thickness as the brace material.
 3. Braces are made from 7/16" OSB. I cut eight 8 by 24 rectangles, which were then trimmed to have the needed angle on the tops.

1



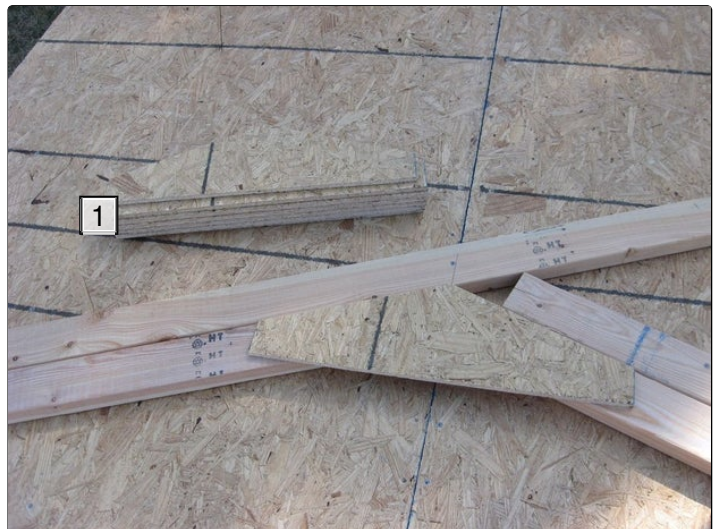
1. The two trusses that become the top sections for the peaked walls are built here as well. Note that there is only one joining brace on these sections (not on both sides as with the middle trusses).
 2. Both top and bottom ends of each of these boards are bevel-cut at 22.5 degrees with a circular saw. These boards are flipped 90 degrees from the position of the boards on the other trusses. Just make sure the ends are flush with the sides of the platform (there will be a 1 inch distance to the end of the platform as seen in this diagram).



1. 2 1/2 inches



1. My guide boards, screwed in place.



1. Braces ready to go.

Step 11: Framing the End Walls

I framed my all my walls with 2x4 studs set 24 inches apart. You could do the studs at 16 inches apart, but I feel 24" is generally adequate for a shed. (I wanted a super strong and "never-ever-gonna-sag" floor, so that's why I went with 16" centers there.)

I chose to attach the exterior panels to the wall frames prior to putting each wall section up. This requires some planning and careful laying out of things along the way, but when it's time to put up the walls they go up in a breeze!

I began by building the two peaked end walls. These two are built the full width of the floor, so exactly 8 feet wide.

For the height, I wanted to use every inch of the exterior siding panels I bought, so the height of the end walls plus the height of the floor platform *together* needed to be exactly 8 feet.

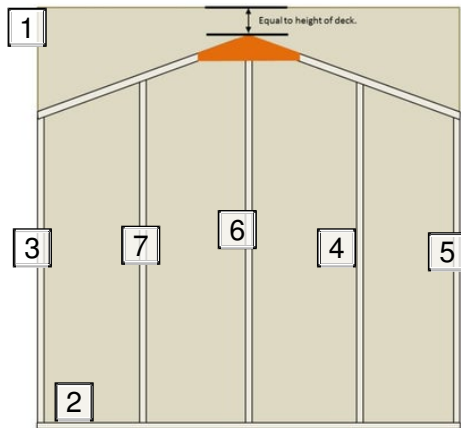
The exterior panels will be attached to the wall frames with the bottom edge extending past the bottom of the walls, so the panels will cover the deck sides once the walls are put in place.

On paper the height of the deck should be 5 1/2" plus 23/32", or just a 32nd under 6 1/4".

In real life however, it was closer to 6 3/8". In a situation like this always go with actual real-life measurement rather than what it *should* be on paper.

See diagram and photos for details and measurements. All of these boards were fastened with 3" screws through pre-drilled holes.

I'll briefly cover framing doors and windows in a later step.

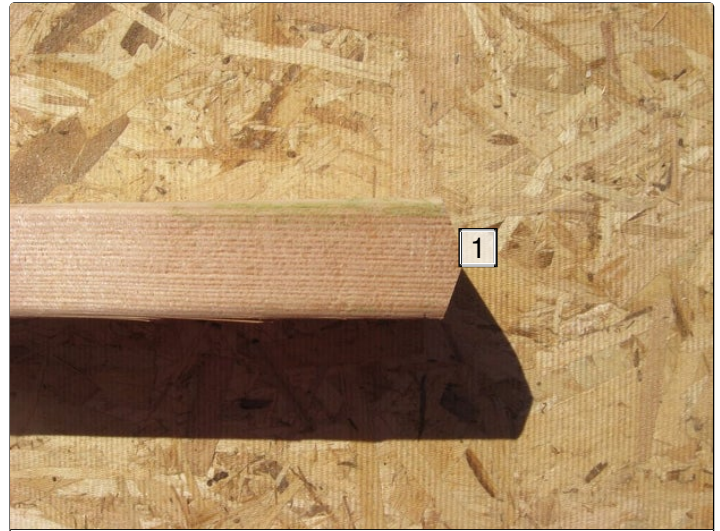


1. Position the peaked wall truss carefully. Guide boards could be screwed in place to assist in the same fashion as was done when building the trusses, if needed. The interior stud heights I needed are noted here.
2. Place a stud along the edge of deck here. Mark board every 24 inches. Measure and trim studs that will go in between top and bottom boards. The top angles need to be beveled at... you guessed it, 22.5 degrees!
3. 68 inches
4. 77 3/8 inches
5. 68 inches
6. 86 1/2 inches
7. 77 3/8 inches





1. The distance from the peak of the frame to the edge of the platform should be equal to the total height of the deck. This is important.



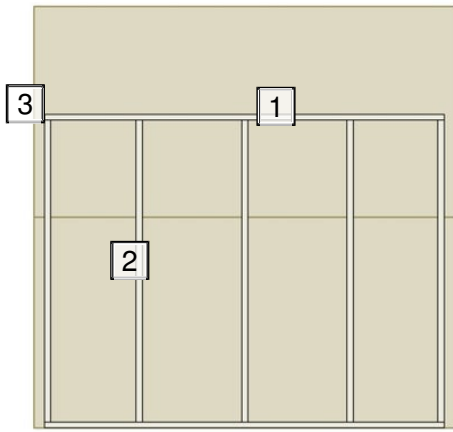
1. Center stud, beveled on both sides to fit peak of truss.



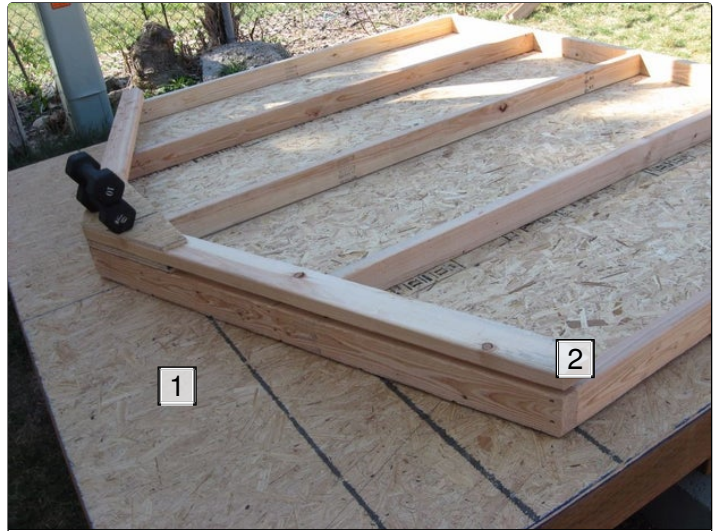
Step 12: Framing the Side Walls

The side walls are framed with 3 1/2" subtracted from the width on either end so they butt up nicely against the insides of peaked end walls.

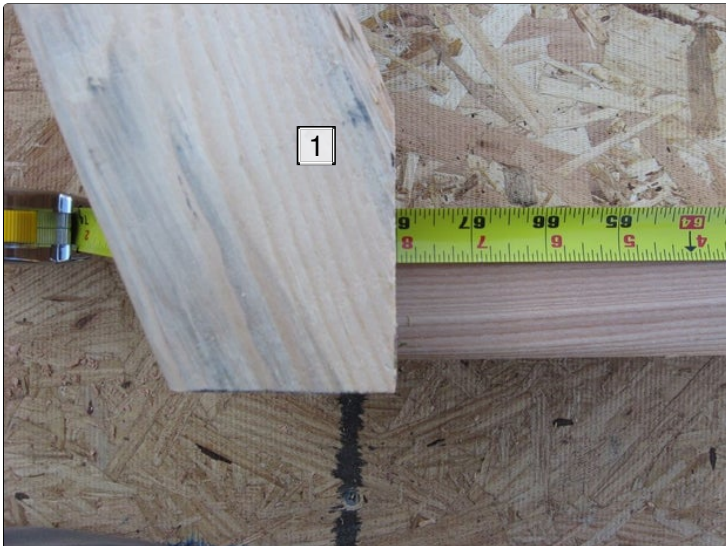
The exterior panels will be left the full eight feet wide however, so they cover up the end wall frames once all the walls are put up.



1. The width of the side wall frames should be 89 inches long (96 inches minus 2x 3 1/2 inches).
2. Interior studs are 65".
3. Side walls are exactly 68 inches tall.



1. Positioning one of the middle trusses over a completed end wall to verify the needed height of the side walls.
2. Measure from here down to bottom of the built wall to get needed height of side walls. Should be precisely 68".



1. Woot!!

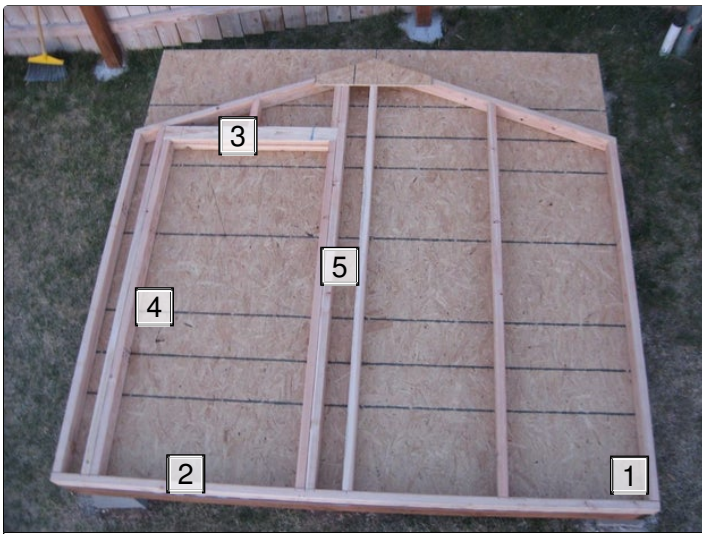
Step 13: Framing Windows and Doors

You have a lot of options when it comes to windows and doors on a simple shed like this.

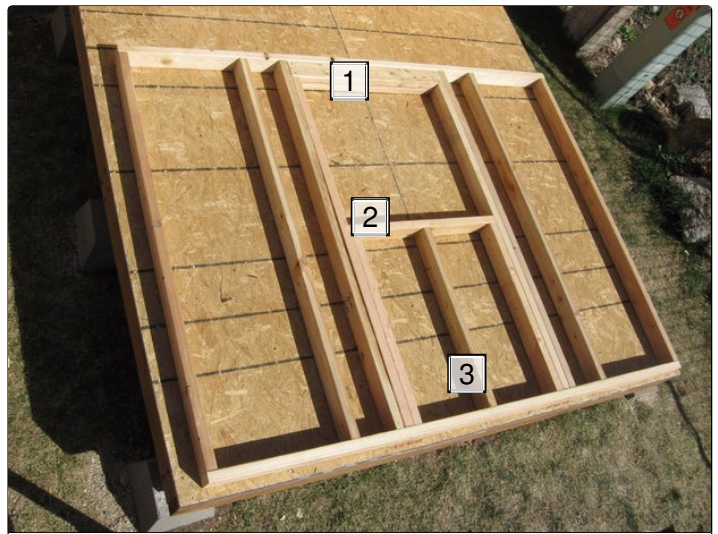
I got an old window from my local Habitat for Humanity ReStore, which I built into one of my side walls. For the door, I needed it in a very specific location, which also dictated the max size I could

build it (the building of the actual door is covered later on).

See the photo notes for how I framed mine and for the basics on framing in windows and doors.



1. Side Note: This photo took several tries. (Setting the timer and tossing the camera up in the air, and getting a decent shot is just not as easy as you'd suspect!)
2. Build the wall as normal, leaving the bottom board intact. The section at the base of the door will be removed once the wall is in place.
3. This is a header, made from two studs fastened together with a piece of 1/2 inch scrap material sandwiched inside. This transfers weight to support studs, on which it rests...
4. Inside studs supporting the header, and transfer weight to the floor.
5. Note this board which spans from floor to ceiling. Same thing done on other side of door. All of these boards are screwed together every 8 inches or so.



1. Header built in the same manner as the door header.
2. This middle section is built to support the window. Picture what you've got without this, and it's just the same as the door frame.
3. The basic idea when framing windows and doors is to effectively support weight above the spanned area, and transfer the weight properly to the floor. Note where the normal studs would fall, and keep that pattern going wherever is possible, as was done here (note this short stud here under the window).

Step 14: Install Side Wall Panels

The installation of the wall panels requires precision and a very specific order of steps.

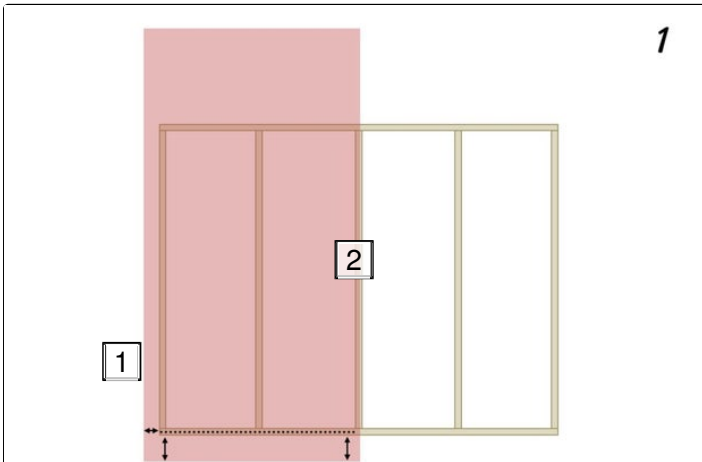
Since the factory-cut panels are perfectly square we can use this to our advantage to pull the frames into perfect squareness as well. The panels are attached with exterior galvanized nails according to the order

and directions in the diagrams I've shared here.

If you want the shed to come together nicely, your walls have got to be perfectly square. Take your time and do it right.

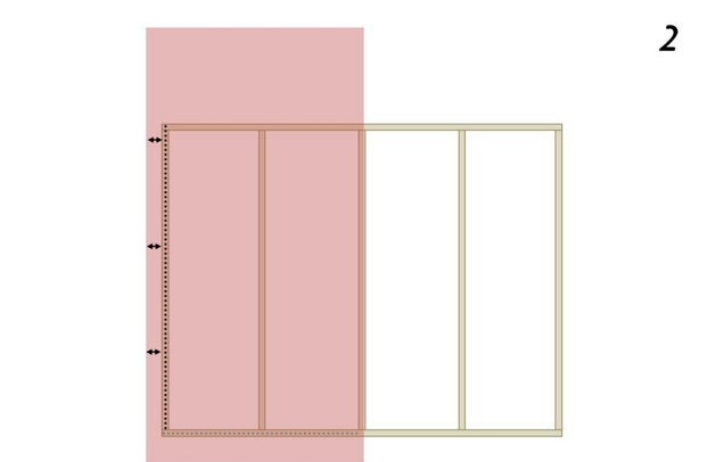


1. The panel overhang needs to match the height of the deck.

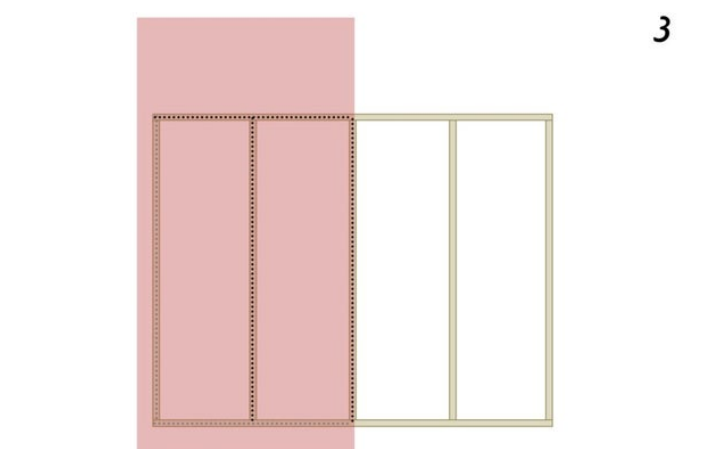


Position left panel over frame with correct edge distances to side from bottom left corner of frame, and along the bottom edge. Fasten panel to frame along bottom stud first. Putting nails about every 8" is sufficient.

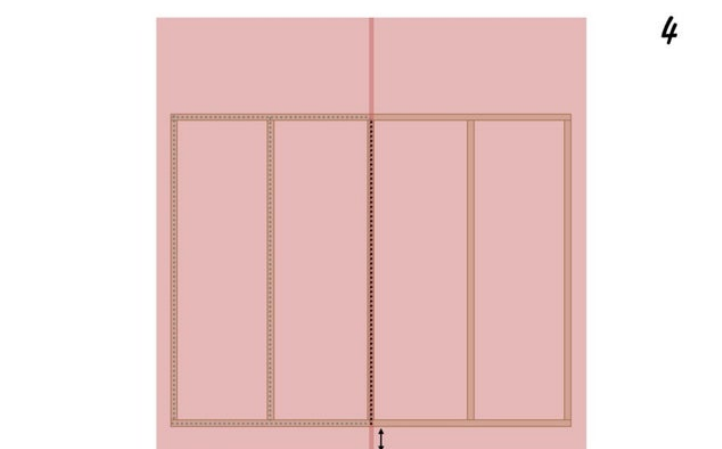
1. Side overhang will be 3 1/2 inches.
2. The panels I used have overlapping tongue-and-groove sort of edges. Make sure the tongue-like edge that will be covered is on this side, so it can be nailed to this center stud.



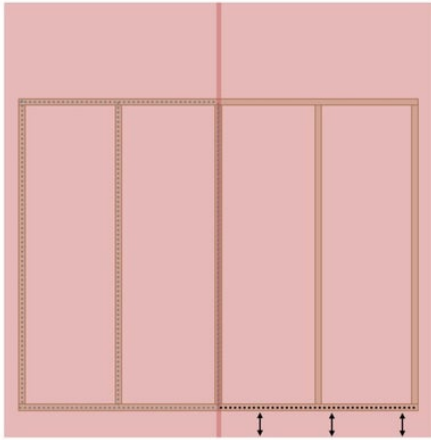
Fasten panel along left stud working from the bottom up, measuring and pulling the frame as needed to ensure consistent measurement all the way up. Left half of frame should now be square to the panel. High five!



Fasten left panel to the remaining studs.
I recommend measuring and marking location of studs with a marker if needed.

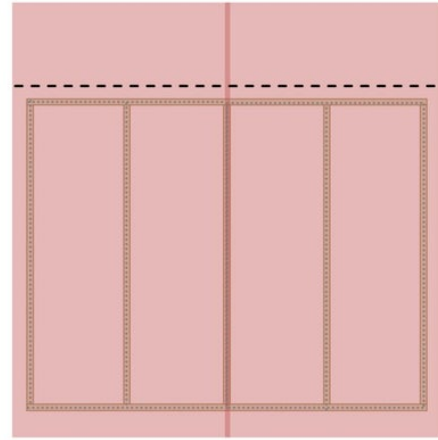


Measure and position right panel so bottom edge is correct distance from the frame at bottom left corner. Fasten the right panel beginning with the middle stud.



5

Fasten the bottom edge of right panel beginning on the left and working toward the right, adjusting frame if needed to ensure proper edge distance to bottom of panel.
Now fasten right panel to remaining studs, just as was done with the left panel.



6

Trim top of panels as needed. Mark line and cut precisely with a circular saw.
For side walls (as in this example diagram), you will want the wall panels to extend above the top stud about 2 1/4".

Step 15: Install End Wall Panels

The end wall panels are installed in essentially the same manner as the side walls except there is no side overhang to plan for.

Mark and trim off the top corners of the panels as shown.



1. Keep these to build something else. A dog house?

Step 16: Side Wall Window

The side wall where I put my window required quite a bit of measuring and marking to know where to put all the exterior nails to fasten the panels to the frame.

With the panels in place I removed the material where the window was to go, and installed the window.

Note: Don't remove the paneling where the door is framed in yet. The wall will be too weak without it at this point.



1. I used a jigsaw to remove the paneling here.



1. Window could either be installed now, or once the wall is up. I did it at this point.

Step 17: Vents

You will want a couple of vents placed somewhere along your walls to maintain some airflow in and out of your shed.

I placed mine on either ends of the the non-windowed side wall (which faces away from my house, so I don't have to look at them).



1. Openings were marked and cut with a jigsaw, and the vents screwed in place. Will actually be temporarily removed later when I paint.

Step 18: Put Up the Walls!

This is where things get really exciting!

You get to see if all your careful measuring and building was done correctly.

I started by lifting the back end wall into place. I used 4" exterior screws to fasten the wall through the floor board into the floor frame boards. Be sure to use screws that can be fastened into treated lumber.

The side walls were then lifted into place, butted

firmly against the back wall frame, and then screwed down through the floor boards into the floor frame.

The corners where the frames meet were screwed together from inside the side wall frames to the end wall frame.

Shorter exterior screws were added all along the outside bottom edges of the panels where they cover the floor frame.



1. Screws placed every 12 inches or so.

Step 19: Last Wall

The last wall was lifted up and held in place by a couple of people. I climbed in and screwed it in place just as the other walls had been.

The paneling that was covering the door frame was then carefully cut free using a reciprocating saw. This

panel will be used to build the door so care was taken to trim it carefully and not ruin it.

The section of the wall frame at the bottom of the door was also removed with the reciprocating saw.



1. Oops. We'll cover that up later.

Step 20: Build Roof

The three remaining trusses were screwed to the tops of the wall frames directly inline with the wall studs.

Two sheets of 7/16" OSB were fastened to the trusses with screws (about every 8 inches) making sure the trusses were vertical.

7-inch strips of OSB were added along the lower edges to complete the roof. The amount of overhang was dictated by how I wanted to do the roof trim boards, which is covered in a later step.





1. Roof panels should be flush with the edge of the wall frames, not the outside faces of the wall panels. The little 1/2 inch gap that will be left won't cause any real trouble.

Step 21: Intermission

You know, you wait all week for the weekend so you can work on your big project.

. . . And then you wake up to this nonsense.



Step 22: Paint Walls

Once the snow melted I painted the walls.

I used Behr exterior paint, color: Boston Brick.

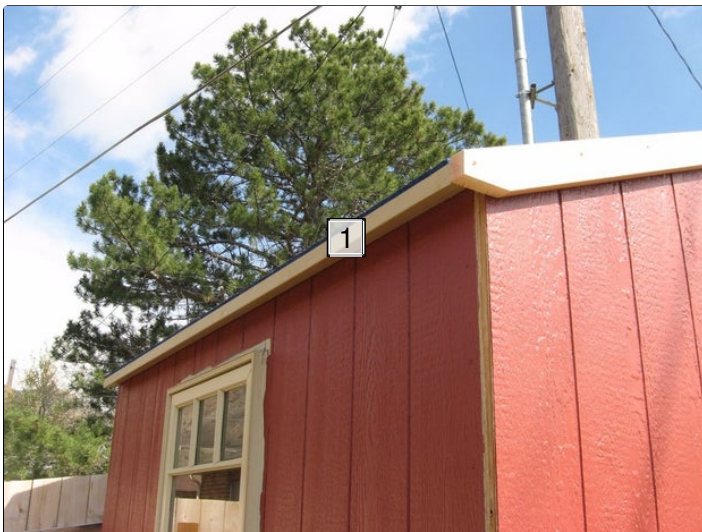


1. Sometime before that snow, I masked off and painted the green window frame so it more closely matched the trim color.

Step 23: Roof Trim

With the walls painted I added the roof trim pieces.

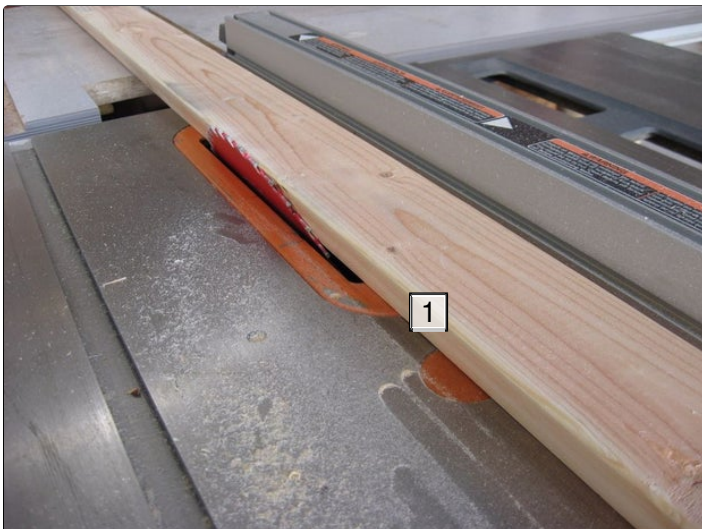
I decided to use actual 2x4s for this to give the roof a more substantial look.



1. This piece is a 2x4 that has a 22.5 degree bevel cut on each side. This was painted and then screwed in place from the inside of the shed as well as through the roof panel.



1. Since this trim piece needs to be flush with the outside faces of the end wall panels (and I didn't want to buy long 2x4s just for this...), a small piece had to be added. This was screwed to the end of the trim piece, sanded flush, and painted along with the main piece.



1. Cutting the bevels on the side wall trim pieces with a table saw.



1. These trim pieces were cut and attached temporarily to ensure a correct fit. Then they were taken down, painted, and then installed permanently. Screw holes were filled with exterior wood putty, and touched up with paint.

Step 24: Trim Window and Corners

Trim was added around the window and along the corners. These trim pieces were painted ahead of time and fastened with 1" pneumatic staples.

I used exterior putty to fill the staple holes, and the window and corner trim was then caulked to seal the edges.

Then I went back and quickly did some touch up painting.



1. All trim pieces were painted prior to installing with a couple coats of 'Harvest Brown' exterior Behr paint.



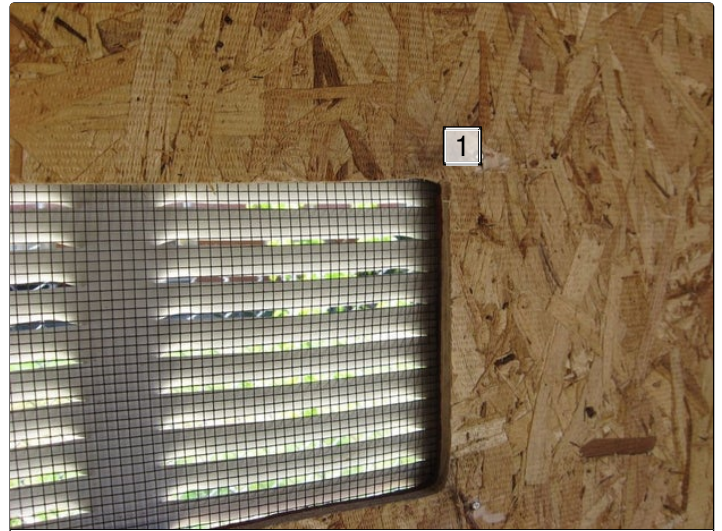
1. For exterior applications like this, caulk the sides and top, but not bottom edge (to allow moisture to escape).

Step 25: Miscellaneous Stuff

Here are some miscellaneous items that were taken care of at this point.



1. The vents were removed when I painted the walls and spray painted to match the trim color. Then they were re-installed.



1. The exposed screws that were holding the vents in place were ground off on the inside of the shed. Just a little OCD, I know!



1. For a threshold, I installed a piece of 1 1/2 by 1 1/2 inch, 1/8 inch thick angle aluminum. My door opening is exactly 32 inches.

Step 26: Roofing

For the roof, I installed architectural shingles to match the ones on my house (mostly) according to the instructions provided by the manufacturer, which are available [here](#).

For a simple shed like this you can either overhang your shingles a couple of inches all around, or install an aluminum drip edge as I did.



1. A starter row was done under this first row, using these same shingles as outlined in the manufacturer's instructions.



1. Ridge cap was started at this far end. Each piece had roofing cement squirted around all the edges (about an inch in), and were nailed down along the edge that was to be covered by the next piece.
2. The final piece was nailed down, then I added a second piece over the top, just cemented in place. This is really not needed, but I had only one left so I figured, why not?!



1. Normally, for architectural shingles like this, you would place the upper layer of shingles inline with this edge showing here... But I wanted to get this done with only three packages and I knew it was going to be close. So I stretched each layer a 1/2 inch, and was able to eliminate a full row from each half of the roof. In the end I had about six full shingles left, which probably would have just been enough for those two extra rows. But still, that's cutting it pretty darn close!



1. Another of my instructables. The darn kids broke off one of the armrests!
2. Also another one of my instructables.
3. I got this half-used roll of tar paper from ReStore for only a few bucks. Good find! I'm laying out and cutting the needed lengths here.



1. Tar paper installed with a hammer stapler. Start with lower sides and work up toward the peak. You can get by just using roofing nails to hold this down if you don't have a stapler.
2. This drip edge is actually installed first. Had to bend it a bit first to match the angle of the roof. Then the tar paper is installed, followed by the drip edges over the exposed ends of the tar paper along the sloped edges (not installed yet in this photo).



1. For the ridge cap, I trimmed off several of the non-layered backsides of these architectural shingles, and cut each strip into three sections (about 13 inches long each).

Step 27: The Door

There are so many details involved with the building and installation of the door.

See photos and photo notes for specifics.



1. Here is my finished door, which to me is the highlight of the shed!



1. Began by taking the panel removed from the wall, and trimmed 1/4 inch off of one long side and one short side. Then built a frame of 2x3 studs matched perfectly to the shape of the panel.
2. I began by taking the panel removed from the door area of the wall, and trimmed 1/4 inch off of one long side and one short side. I then built a frame of 2x3 studs matched perfectly to the shape of the panel. This was screwed to the panel through the front side.
3. Can't really see it, but the frame is marked 'bottom' here. To make things run smoothly, make sure to place the door back into the opening as it was before it was cut free from the wall. If it's slightly out of square, it will still match up to the opening and

the wall. If it is slightly out of square, it will still match up to the opening and not give you any grief.



1. Additional pieces of material were added where the hinges will attach to provide some 'meat' for the hinge screws to grab to.
2. Middle hinge will extend out to here.
3. Bottom hinge will extend out to here.



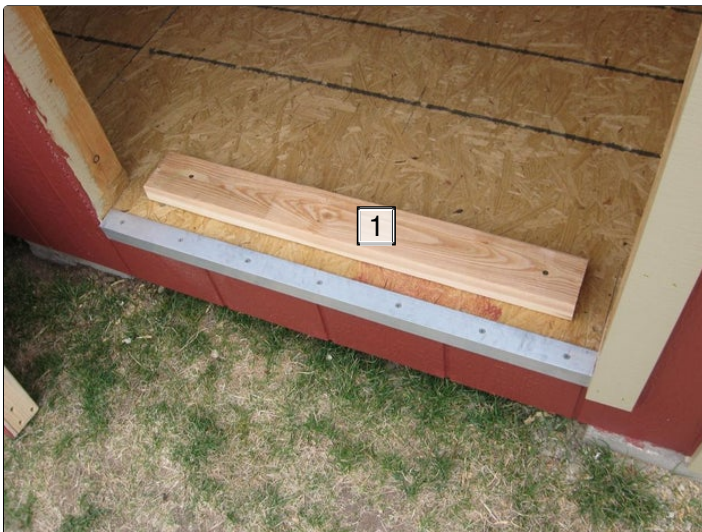
1. Face of door painted to match shed.



1. First piece of door trim added now to side of door frame where hinges will be. This needs to be perfectly level. Fastened with staples.



1. Blocks are placed temporarily to hold door in place during installation . . .



1. . . . One at top, and one at bottom as shown here.



1. Place door in opening. Use paint stir sticks to shim up around as needed. There should be an 1/8 inch gap along the bottom, and along the hinge side.
2. Note the grain on the panels. Door is placed so panels match up in original orientation.



1. About 1/4 gap on the non-hinge side. This is actually good, as it provides clearance for door to swing shut.



1. With the door shimmed in the desired location, add trim to the door along the hinge side. Make sure the gap is even all the way up. This piece is placed extending past the top of the door, to create an upper lip that will keep the door from swinging inward.



1. Add upper piece of trim. This needs to be fastened a bit more securely, so screws were used.



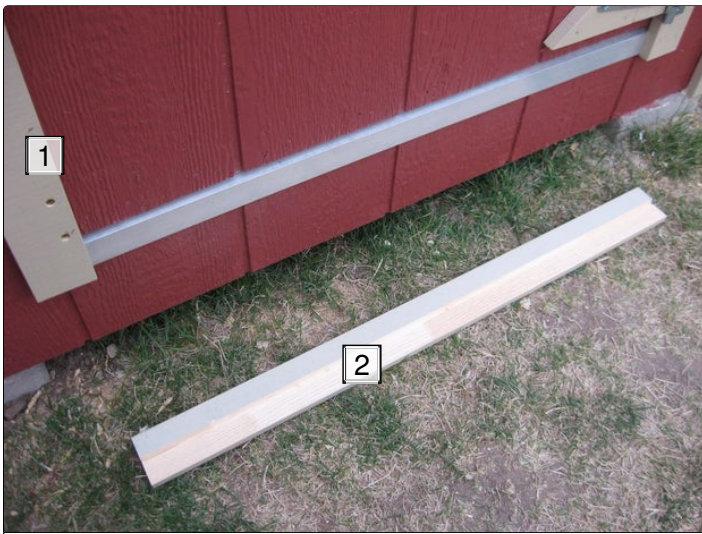
1. Triangle pieces were added, to support the style of hinges I was using.



1. Hinge holes are marked and pre-drilled for top and bottom hinges.



1. Top and bottom hinges installed. I upgarded to longer zinc plated screws than what came with the hinges. All shims can be removed at this point.



1. Remaining trim pieces are added to door.
2. The bottom piece of door trim needed a bit of material removed on the table saw, so it would clear the aluminum threshold piece.



1. Middle trim piece added, and middle hinge installed.



1. External trim pieces are added now. The top trim piece was made from a piece of 2x3, cut at an angle as shown to shed rain and snow.



1. Holes patched, and trim caulked as needed. Then paint was touched up.



1. Handle and hasp installed. Also added foam tape-style weather stripping around inside of trim on door, and along hinge side of door frame. It seals up nice and tight! After several good rain and hail storms, there have been no leaks or water seeping in around door. Happy dance.

Step 28: Build Some Shelves

I deliberated for a while on how to include some shelves that would be useful, not waste any floor space, and still provide access to the window. These are what I came up with.



1. Note the caulking along the top of the wall here. The outside trim sealed up the little gap mostly, but I added caulk to complete the job.



1. Shelves were made from scrap pieces of 2x4 that were ripped in half.



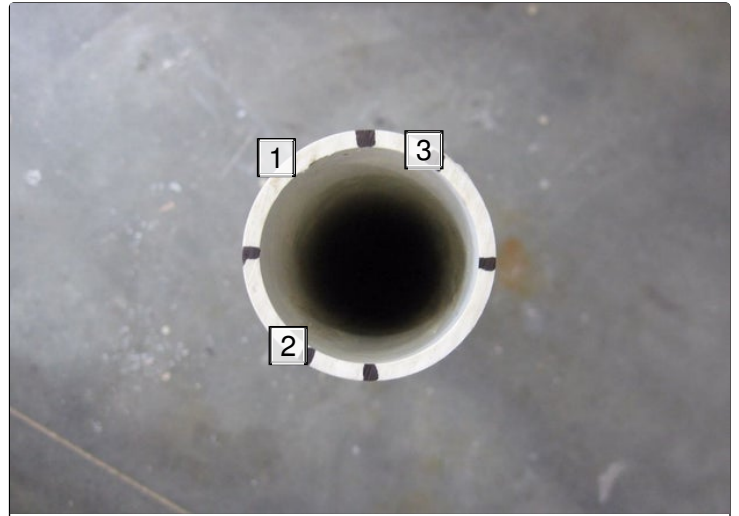
1. Pieces of OSB were screwed in place to the shelf frames.



Step 29: Lawn Tool Storage

This is the solution I came up with for some tidy lawn tool storage.

These little hangers were made from 2" PVC.



1. Remove this section of the pipe by cutting down the length of the pipe at 12 o'clock and 9 o'clock. I used a jigsaw with a fine toothed blade.
2. At 7 o'clock drill 5/16 inch clearance holes for a driver bit.
3. At 1 o'clock drill 3/16 inch holes through which screws will be fastened to the trusses.



1. Velcro snow, right? Cut the pipe into 1 1/2 inch sections.



1. 5/16 inch hole not yet drilled.



1. Fasten to trusses with a pocket hole screw.



1. Hangers are placed 5 inches apart, starting 10 inches up from wall on middle truss. On alternating side trusses the location of hangers is staggered.

Step 30: Paint the Floor

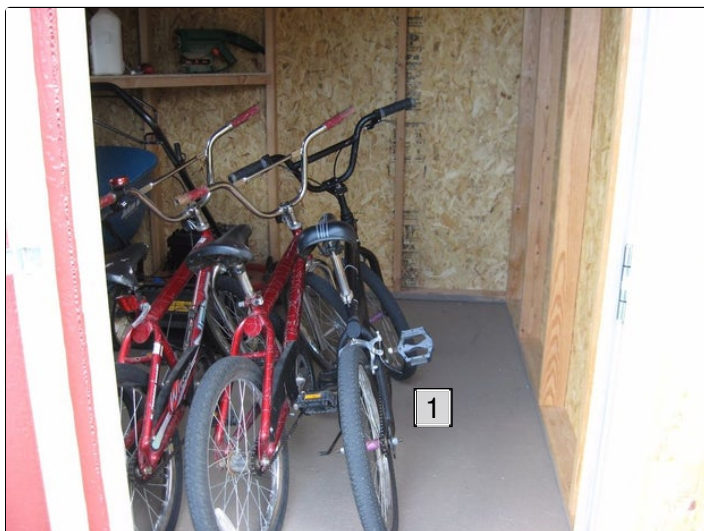
I painted my floor with Rustoleum 4x Deck Cover paint so it would be waterproof and durable. One gallon allowed for two heavy coats.



1. This stuff is like mud, so you can just dump some out and spread it around with a roller. This would not work if you were painting a deck, of course.

Step 31: Fill It Full of Stuff

My new shed fits all the stuff I've put in it so far!



1. The bikes fit, and even allow some walking room to access the shelves. However, to get the mower out the bikes have to be pulled out first.

