



Kids in the Shop: Shaker Step Stool

BY BEN STRANO

FineWoodworking

A few months ago, I saw a beautiful step stool made by Christian Becksvoort in associate editor Anissa Kapsales's office, and I immediately wanted to build it. My 4-year-old has hit the stage where the kitchen stepladder was too high for him and this single step stool would get him to the perfect height. Then the thought hit me: Why not make the step stool with my son? The stool has a through-mortise on one leg and dovetailed construction on the other. I thought it'd be best to simplify it.

Then it hit me again: Why not get a bunch of kids together and make a bunch of step stools? While we were at it, we could make a video and encourage everyone to get out to the shop with their favorite little ones. Everyone thought it was a great idea, including video manager Jeff Roos (even though it was a logistical nightmare for him). All four kids, aged 4 to 9, had a blast—no meltdowns, not even from the grown-ups.

If you want to try something similar with your little ones, there are a few things to keep in mind.

TIPS FOR WORKING WITH KIDS:

Nobody knows your kids like you do. What is in the comfort zone for some might not be for others.

Before you set foot in the shop with kids, set some ground rules. Ben Brunick once told me his golden rule with kids in the shop is "Push No Buttons!" and it sounds like a great start to me.

Make sure you have a good ratio of children to adults. We had three adults and four kids—it worked great for us—but I could understand setting a rule that each kid needs to have an adult helping/watching.

Don't underestimate the "biting" power of hand tools. I once saw a kid nearly cut himself at a tool show clearing a shaving from the mouth of a spokeshave. Show them the blade and create a no-go zone for them.

Have extra parts on hand. It's likely someone is going to screw something up. If you have extra pieces, it's no big deal. I made up enough pieces for six step stools. In the end, it was just enough to get us through the day. It's way better to have too many parts than too few.

Crosscut the parts



When batching out multiples, it's hard to beat a crosscut sled and stop block on the tablesaw.



Leave the stop in place after cutting the front leg. This will make sure the shoulder on the front leg is in the exact same place. Then just slowly raise the blade to sneak up on the shoulder cuts.

Cut the through-mortise in the step



The mortising jig uses offcuts of the stock to make sure the mortise is exactly the thickness of the handle. I placed each piece in the jig and marked where the mortise would go.



A 5/8-in. Forstner bit makes quick work of the majority of the mortise.



This mortising jig isn't going to win any style points, but it gets the job done.

We didn't have the kids start the project from the top. I cut the parts to size and added the mortise in the step beforehand. If we had included the older kids they'd likely have been fine for the whole build, but when you throw two 4-year-olds into the mix, it seemed best to take out some variables. Again, you'll know what's best for your kids, but in my opinion, it's better to leave them wanting more at the end of the day than have them be bored or frustrated because there is so much work to do.

Now on to the project:

Preparing the stock

This project is designed to use a single 6-ft. piece of 1x8 stock. I was able to get really nice pine from a local lumberyard at a cost of \$20 per stool.

Crosscut the parts—Since we were doing a batch of stools, I did this at the table saw using a sled and a stop. You easily use a miter saw or do it by hand. The last piece I cut was the front leg. Make sure to leave the stop in place and use that to cut the shoulders of the back leg to assure that the step sits evenly on both pieces.

Cut the through-mortise in the step—If you're making one or two step stools you

can use any method you like for this. I was doing six, so it was worth the time to create a simple jig. It uses offcuts of the stock to make sure the mortise is exactly the thickness of the handle. I placed each piece in the jig and marked where the mortise would go.

Next I headed over to the drill press to hog out most of the material. If you're making one or two, you could easily grab a chisel and clean up the walls of the mortise and skip the mortising jig.

Then, the step goes back into the mortising jig and onto the router table to precisely cut the mortise with a top-bearing flush-trimming bit.

Draw some lines and curves



Draw your curves. If your shop is in your home, you're more likely to have a plethora of circular objects to pick from. Pickin's were slim in the FWW shop.



Mark the taper. With the kids, we had one hold the yardstick and one draw the line. Here I'm showing off my dexterity and doing the job of two small children.

Shape the parts



You could use a bandsaw, jigsaw, or the more kid-friendly coping saw.

Clean up the parts



Making shavings is always fun, no matter how old you are. Plus, a few shavings taken off the handle will make assembly easier.

Draw some lines and curves—This is where we picked things up with the kids.

Mark the taper for the handle with a yardstick and let the kids wander around and find circular items to use as a template for the curves. Older kids might find a compass more fun to use.

Shape the parts—After drilling out the hole in the top of the handle, head over to the bandsaw and cut out the pieces. This could easily be done with a jigsaw. My son loves to “use” a coping saw even though he is little more than moral support with his hand just resting on mine as we make the cuts.

Clean up the parts—This is a step that I didn't anticipate doing with the kids but it turned out to be the highlight of the day. Kids and a spokeshave are made for each other. Every time we turned around, one of the kids had a spokeshave and was going at any piece of unattended wood they could find.

Also, using the mortising jig made for a near-perfect fit, which is great in the hands of an experienced woodworker, but we found that the kids—and their love of mallets during assembly—split a couple of the steps. So we all agreed that in the future it would be a good idea to take a few shavings off the sides of the handle in order to make assembly a little more friendly for the mallet-wielding children.

Assemble with screws—This is one spot where Anissa, John, and I were scratching our heads a little. In the end, I think we

Assemble with screws



First we marked the center of the arched brace, and drilled pilot-holes at 1 in. and 3 in. from the top.



Then we repeated the same task on the legs and started to drive the screws, leaving the tip of the screws protruding about $\frac{1}{8}$ in.



When you assemble the arched brace and leg, the screws will help you register the pieces in the correct place.



came up with a great order of operations. First we marked the center of the arched brace, and drilled pilot-holes at 1 in. and 3 in. from the top.

Then we repeated the same task on the legs and started to drive the screws, leaving the tips of the screws protruding about $\frac{1}{8}$ in.

When you assemble the arched brace and leg, the screws will help you register the pieces in the correct place.

After that, we slid the step over the handle, and screwed the back leg to the arched brace using the same method.



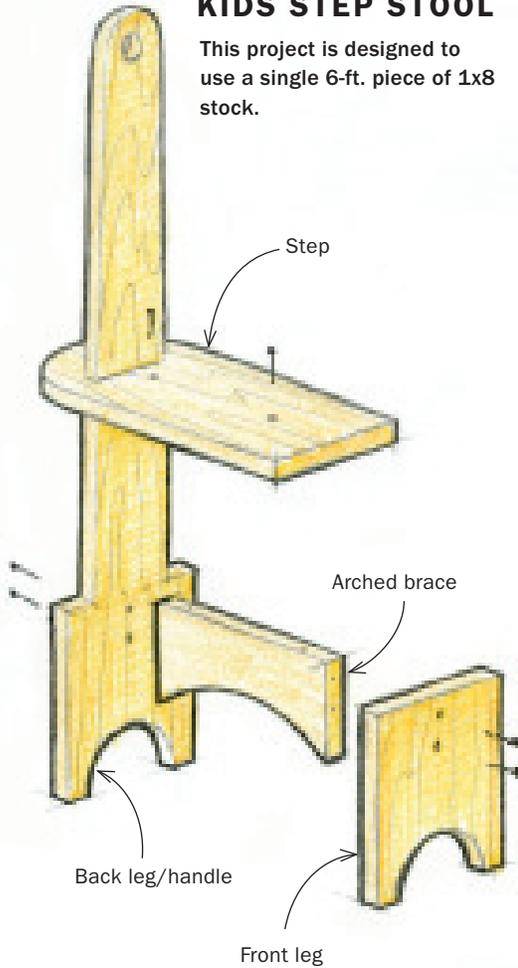
After that, we slid the step over the handle, and screwed the back leg to the arched brace as well using the same method.



Follow that up by pre-drilling and screwing in the step.

KIDS STEP STOOL

This project is designed to use a single 6-ft. piece of 1x8 stock.



Follow that up by pre-drilling and screwing in the step.

All that is left is to let the kids go hog-wild with all of those random cans of paint you have been saving for no real reason. You could certainly plug the screw holes if they bother you, but chances are pretty good that the kids are going to put more paint than you thought plausible on the stools, covering any evidence of screws. Plus, for us, if we started to get too precious with any aspect of this project, it felt like we would have taken ownership away from the kids.

My son uses his stool every chance he gets and he is proud of it, as he should be. Poor John Tetreault has had to come to terms with the fact that his daughter now grabs the stool she made, and not the gorgeous dovetailed masterpiece he lovingly made for her. I don't think he minds one bit. □

Ben Strano is web producer for Fine Woodworking.

