



Creations

Woodshop

youngfoundations.org

WOODSHOP WOODEN TOOLBOX TOOLS

AGE: 10-11

ESTIMATED LENGTH: 3 HOURS

NEEDED MATERIALS:

- 3 ½" long by 1 1/8" diameter dowel for the handles (We used walnut)
- 7 ½" long by ½" diameter dowel for the shafts (We used maple)
- ½" drill bit
- Wood glue
- Piece of string
- A piece of wood 6" long by 3 ½" wide by 2" thick. This is for the Hammer Head (We used Ash)
- 1 1/8" diameter dowel 12" long for the handles (We used Walnut)
- ½" dowel 1" long (To pin the joint)
- A piece of wood 1 ½" wide by 4 ½" long or longer if possible and 7/8" thick...3/4" thick will work also. This is for the Handle of the square (We used walnut)
- A piece of wood 1 ½" wide by 7 " long and ¼" thick. This is for the Blade of the square (We used maple)

TOOLS NEEDED:

- Hammer
- Tape or ruler
- Sander
- Drill press or Drill of some sort.
- Miter saw
- Table saw
- A square
- ½" drill bit
- 1 1/8" forstner or paddle bit
- Jig saw or band saw
- Pencil or Pen

INTRO AND CLASS SUMMARY:

- Read scripture and discuss parable.

- Start class with prayer.
- Play and discuss quote during break.

SCRIPTURES: ISAIAH 44:13

The carpenter stretcheth out his rule; he marketh it out with a line; he fitteth it with planes, and he marketh it out with the compass, and maketh it after the figure of a man, according to the beauty of a man; that it may remain in the house.

QUOTE: 62-0520 PERSEVERANCE

And let's think of Noah, just a common farmer out in the field with his crude tools, trying to make a living for his children. And he was not an architect by no means, just a good man, God's blessings upon him. Every day when come into the house, he'd gather his family around when he come in for his noontime meal, and they'd perhaps all kneel down and pray to God.

TUTORIAL:

Screwdriver Tool:

1. First cut your 1 1/8" dowel 3 1/2" long.
2. Using a drill press with a 1/2" forstner drill bit, drill a 1" deep hole in the middle of one end of the handle. Drill in exactly 1" deep.



3. Bevel or round the handle on the top and bottom with sander.



4. Glue and hammer the shaft of the screwdriver into the handle. Make sure to wipe excess glue with wet rag.



5. Let dry and then sand the head of shaft to a flat point.



6. For this project we used black walnut for the handle and maple for the shaft.

Square Tool:

1. Use a miter saw to cut a 45 degree angle on the handle. Measure $\frac{5}{8}$ " in from one end and cut off a corner.



2. Set saw blade on the table saw to $1 \frac{3}{8}$ " high. Cut a $\frac{1}{4}$ " slot in the center of the handle on the same end that the 45 degree angle was cut. The slot should be $\frac{1}{4}$ " wide by $1 \frac{3}{8}$ " deep. Then cut your handle down to $4 \frac{1}{2}$ " long off the opposite end as the slot.



3. Glue and slide the blade into the slot in the handle. Use a square to make the blade and the handle a 90 degree angle. Make sure to wipe excess glue with wet rag.



4. Let glue dry and use drill press with a 1/2 forstner drill bit to drill a hole in both the handle and the blade for a 1/2 dowel to be hammered into hole. Put hole in the center of the handle and centered in the 45 degree angle.



5. Cut 1/2 dowel 1" long. Apply glue and hammer in to elbow of square so that the dowel sticks out on both sides. Make sure to wipe excess glue with wet rag.

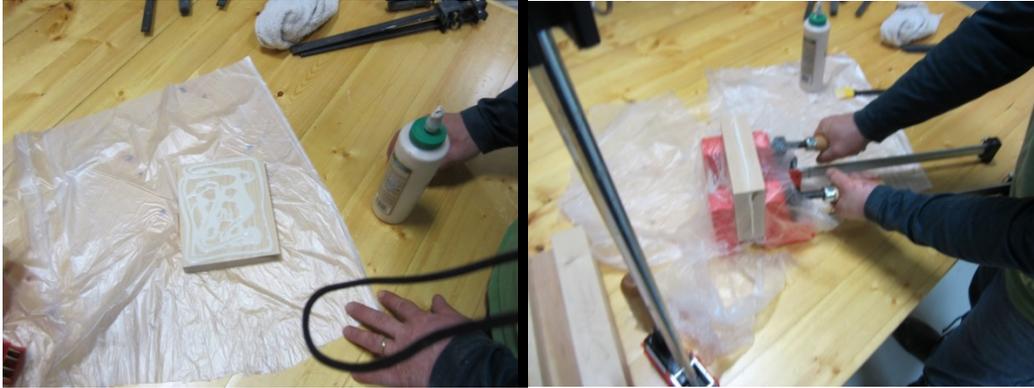


6. Sand the dowel down flush with the handle.



Hammer Tool:

1. Cut a piece of wood 6" long by 3 ½" wide by 2" thick. This is for the Hammer Head. (We used Ash)
2. *NOTE* We clamped two 1" thick pieces of wood and glued them together using Tight Bond 3 to make the hammer head. This is just to get the correct thickness. If you already have a 2" thick piece of wood for your hammer head then you can just use that. You may laminate as many pieces as you want to get the desired look and correct thickness.



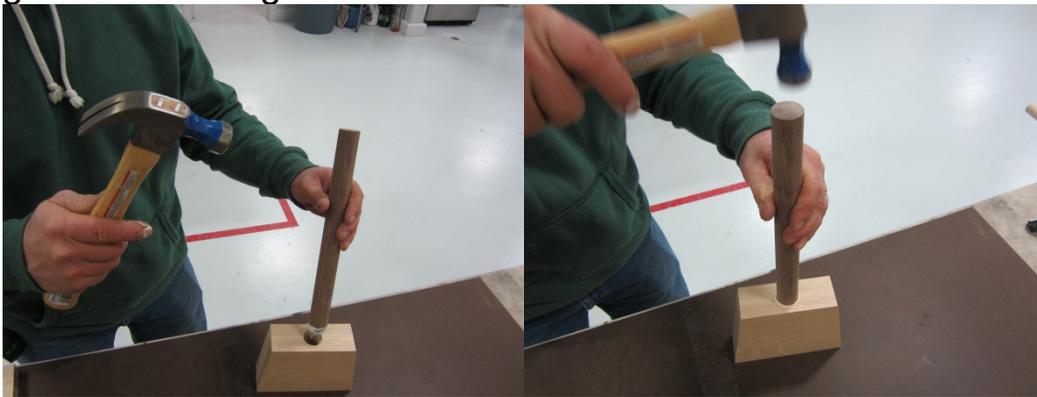
3. Make sure that one of the 6" sides of the hammer head is straight. This side will be the bottom/handle side of the hammer head.
4. Use a miter saw to cut one side of the hammer head at an 8 degree angle (the straight edge side should be the short side of the 8 degree)
5. Measure in 5" from the shortest side of the angle (the straight edge side), and make a mark. Cut at an 8 degree angle the opposite direction as the other angle. The opposite sides of your hammer head should be cut inward towards the bottom of the hammer handle.
NOTE this should make your straight side shorter than the top of the hammer.



6. Drill a 1 1/2" deep hole in the bottom center of the hammer head using a 1 1/8" inch bit.



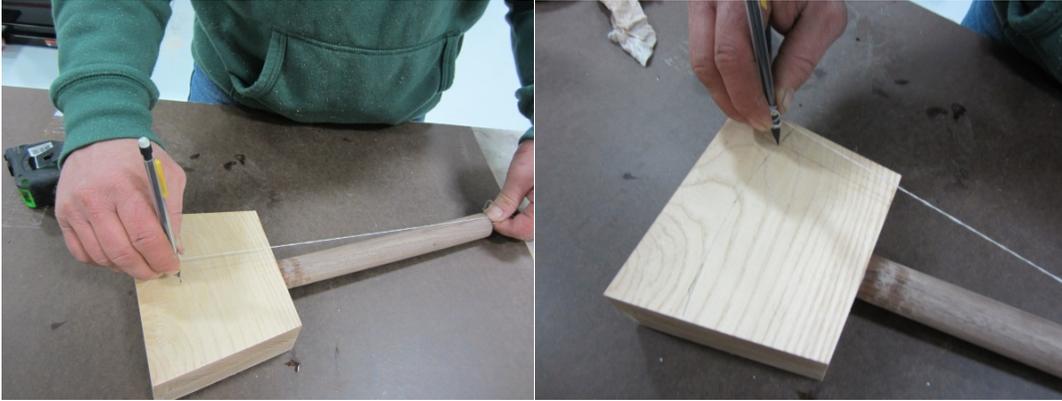
7. Cut your 1 1/8" dowel 12" long. Glue and hammer the dowel to the bottom of the 1 1/8" hole of hammer head. Make sure to wipe excess glue with wet rag.



8. Measure 3 1/2" from the bottom of the hammer head towards the top and mark it with a pen or pencil.



9. Wrap a piece of string around a pencil and using the bottom of your hammer handle as your radius point, draw a curved line. This will give you a rounded top to your hammer.



10. Cut on the line using a band saw or jigsaw.



11. Sand hammer eliminating any sharp edges.



12. Finish all your pieces with whatever you choose to seal and protect the wood. We used mineral oil.

