

## *7<sup>th</sup> & 8<sup>th</sup> Grade Wooden Key Rack Project Directions*

1. Mr. Lopatic will demonstrate the **Band Saw** (Straight Cuts ONLY) and the **Scroll Saw** (for curves)
2. **Practice Day 1:** Draw gently swerving or squiggly lines across practice wood. To get a feel for how the saw cuts and how you can learn how to control the action of the scroll saw, you may begin sawing. (I'll show you how to do it)
3. **Practice Day 2: Pick out** desired pattern from those supplied.
4. **Trace** parts of pattern onto practice wood. (Mr. Lopatic will demonstrate how to do this)
5. Practice cutting the lines across the grain of the wood as many times as you can today.
6. **Place your name & locker # on the back** of your pattern, not on the pattern front to store in locker.

*At this point we may or may not need another day to practice...I'll let you know.*

7. **Day 3 or 4:** I will hand out your final piece of wood for your actual project. I will then show you how to properly trace your patterns onto that wood. **Everyone gets only ONE piece of wood!** You are now ready to **trace, cut, shape and sand** your "real" project. You may use the band saw (for Straight Cuts) and scroll saws to cut your desired shape.
8. You are now ready to **remove all the machine marks and scratches from all edges and surfaces.** Keep in mind all of the sanding rules like starting with 60 or 100 grit and working your way to 150 grit. When sanding **always sand with the grain to avoid permanently scratching your wood.**
9. After cutting out entire shape, you will **sand the back surface first** so I can put your **name and locker number** on with permanent marker.
10. **Sand the bottom 2nd** with 150 grit, then bring it to me, so I can draw your center line for laying out your holes.
11. You will then use the various **files, sanding blocks, dowel rods wrapped** with sand paper, and **spindle sanders** to bring your rough edge shape to its finished shape and smoothness. (I'll show you how to do this)
12. We will be **placing marks** on the **bottom edge of project** and **drilling pilot holes** for your brass cup hooks. You will **find the center and mark it.** Next **measure 2 inches** in each direction and **mark** them. **Measure two inches from your new marks** and **mark** them. Please take the scratch-awl and permanently mark the bottom edge for drilling. These marks will hold the drill bit in place while drilling.
13. It is time to **drill your starter holes** with the supplied hand drill. I have marked the drill bit with masking tape so you don't drill too deep. Please don't wobble the hand-drill, you may snap the bit off inside your project.
14. The last surface to sand is the Front. It must look sensational, so please pay good attention to it.
15. **Pick your color, stain and wipe** your project following the steps outlined in the demo. Place in locker over night to dry. It takes 24 hours to dry.
16. **Wax the screw threads** on your hooks and **turn the screws into the starter holes.** Pay attention to the direction the hooks face when finished, all hooks should be open in the front and lined up nicely. Place on table for grading. **Nice job!**

Name: \_\_\_\_\_ Pd. \_\_\_\_\_ Seat # \_\_\_\_\_ Locker # \_\_\_\_\_

## **7<sup>th</sup> Grade Manufacturing: Daily Work Schedule & Demo's**

**Day 1: Cutting Machines Demos:** 1) Pick out pattern you want to make. 2) I will demo both major saws today and let you practice cutting lines on your wood. Because of today's demos, you will know which machines and which order you will be cutting your project. Then you're ready to start cutting tomorrow.

**Day 2: Practice Day:** to start practicing cutting out your actual shape, I'll show how to trace parts of your pattern and onto the practice piece and cut them out.

**Day 3: Last chance to finish practicing. (Brief Filing & Sanding Demo)**

**Day 4: Demo:** Today we learn how to properly trace our shapes, then we start cutting and shaping project. (Remember to leave your pencil lines on the wood and cut just on the other side of the pattern lines)

**Day 5: Today we are cutting our shapes & learning how to problem-solve our mistakes.** We will use the patterns to retrace areas that we need to re-shape because of going off the lines. We want our shapes to be symmetrical & balanced.

**Day 6: Keep shaping & sanding your edges. Demo: Using the Random Spindle Sanders**  
**Make sure you get your line on the bottom edge today.** (Sand it with 100&150 1st)

**Day 7: Finish sanding edges to perfection ...**(

**Day 8: Surfacing Sanding Demo:** Start by sanding the **back surface** with the grain first, Mr. L will place your name & locker number on the back with magic marker

**Day 9: Hole Layout & Drilling Demo:** Lay out holes on bottom & hand drill your pilot holes for your hooks, then erase lines & touch up with 150 grit when done drilling.

- (This process involves placing the math on the bottom of your manufacturing sheet. You will write down the total length of your project and divide in half to find the center of your project, then write that number down on your sheet.)
- **You can get back to sanding** when finished with the drilling. (edges should be done

**Day 10: Sand Fronts to perfection and take sharp edges off (Demo's)**

**Day 11: Stain Demo:** Either stain or keep sanding to get ready to stain tomorrow

**Day 12: Stain & Wipe off by end of period**

**Day 13: Hooks & Hanger Demo:** 1) We'll go step by step to place wall hanger on BACK.  
2) Then we'll lightly bees wax the threads on each hook, then place Hooks in bottom & turn in for grade by the end of this period.