

Name \_\_\_\_\_

Date \_\_\_\_\_

Period \_\_\_\_\_



## Agricultural Mechanics 1 Wood Working Projects

### Planter Box

#### Bill of Materials:

1- 1" X 12" X 44" Redwood

18- #8 Screws 1 1/2 "

Wood Glue

Varnish

#### Procedures:

#### Measurements and Cutting:

1. Obtain a piece of redwood, 1" X 12" X 44", and layout design.

A.	B.			
C.	D	E		

- A. Side piece #1, 5 1/2" X 22"
- B. Side Piece #2, 5 1/2" X 22"
- C. Bottom Piece, 5 1/2" X 22"
- D. End Piece #1, 5 1/2" X 4 7/8"
- E. End Piece #2, 5 1/2" X 4 7/8"
- F. Legs and Scrap

2. Adjust table saw rip fence so that it measures 5 1/2" from the fence to the inside of the saw blade.
3. Rip the 1" X 12"
4. On the side that measures 5 1/2", measure and mark it at 22", Using the Radial arm saw cut the board in two.
5. On the other piece of wood, make sure that it is 5 1/2" wide, if not use the planer to shave off the excess wood. ( Make sure that you use a test piece of wood on the planer before you plane your piece of redwood).
6. Mark out 22" on this piece and cut it with the radial arm saw.
7. Mark out 4 7/8" on your piece of wood leftover and cut it with the radial arm saw.
8. Mark out 4 7/8" on your piece of wood leftover and cut it with the radial arm saw.

**Important: Do not mark your wood at the same time you make your cuts and measure each time. This is so your measurements will not be off because of saw kerf. Save your scrap wood and put it away for now.**

9. Make sure that your two sides and your bottom are of equal length. Make sure that your end pieces are also of equal length.
10. On your sides and bottom, measure in 1 ½” and mark it.
11. Using the Dado saw, make ¾” dado cuts in your wood.
12. On the bottom of your two side pieces, measure from the bottom of your wood up ¾” the length of your board.
13. Using the \_\_\_\_\_, make your Rabet cut the length of the board.
14. Take your two side pieces, lower the blade on the table saw so that it sticks up no more than 1/8”. Run a test piece of wood so that you are sure that the blade will not make a cut deeper than 1/8”, adjust if necessary and retest.
15. Adjust the rip fence to 1”. With the top of your side facing towards the rip fence, run both sides so that they make the cut. **Important run the side that is opposite of the Rabet cut!!!!!!!!!!**
16. Adjust the rip fence to 2 ¾”, run both sides through again.
17. Using your scrap wood, cut two pieces 1” wide
18. Holding those two pieces together go to the belt sander and round the corners on one side, so that each leg will match the other.

**Now, all cuts have been made for your Planter Box, Next step, assemble it.**

**Assembly:**

1. Take your bottom and your legs, place your legs under the bottom so that they are directly in the center of the dado cut on the opposite side.
2. Measure in 1” and start your screws, you will need two screws for each leg. You may make pilot holes using the drill. **Make sure that your legs are centered underneath.**
3. Glue your legs and screw them to the bottom.
4. On your sides, place a mark 3/8” from the bottom at 1” and 6” from each side, and one directly in the middle at 11”. Place the bottom where it should go and drill pilot holes with a \_\_\_\_\_ bit. Start your screws in your side pieces.
5. Glue your bottom to your side and screw in the screws.
6. Repeat Step #5 for the other side.
7. On the side opposite the end dado cuts, place a mark in the center of your design marks and a mark 1 ½” up from the bottom. Place the end pieces in position and drill your pilot holes. Start your screws on your sides.
8. Glue your end pieces and screw in your screws.

### Drilling your Holes

1. Turn your Planter over. Measure your bottom,  $1\frac{3}{4}$ " from one side and  $3\frac{1}{2}$ " from the leg. Mark it. On the same side, measure in 9" from the same reference side and Mark it the same distance from the side. From the opposite end measure in  $3\frac{1}{2}$ " and  $1\frac{3}{4}$ " from the side and mark it. You should have three marks that run along the same side.
2. On the other side measure in 6" and  $1\frac{3}{4}$ " from the side and mark it, do the same from the opposite end. Now, you have two marks on one side and three marks on the other side.
3. Using the drill with the \_\_\_\_\_, drill your drainage holes.

### Finishing:

1. Sand your project down, to a nice smooth finish.
2. Stain or paint your project.
3. Turn in the project and the grading sheet.

Criteria	Points Possible	Points Earned	
1. Grade Sheet & Planter Box	10		
2. Project cutout	25		
3. Care of Wood (No nicks, dents, or gouges)	15		
4. Project Finish	15		
5. Were the directions followed?	20		
6. Overall neatness of the project	15		
<b>Total:</b>	<b>100</b>		

