





Supplies:

lamp socket	drill
lamp cord	1/2" hole saw bit
incandescent light bulb	15/64" bit
60w / 43w	1/16" bit
16 gauge floral wire	wire snips
or wire coat hanger	needle nose pliers
snap fastener	pencil
chipboard scrap	marker
tracing paper or white vellum	rulers
	craft knife
colorful tissue paper	scissors
empty 2L soda bottle	50155015
star shaped stickers	compass
black spray paint for plastics	protractor

- sandpaper (various grits)
- glue stick
- low temp hot glue gun
- wood glue
- 3" square of 1/8" bass wood
- 5" square of 1/8" bass wood
- (2) 3"L x 1"W x 1/2"D plywood
- (2) 2"L x 1"W x 1/2"D plywood
- (4) 1/2"L x 1/2"W x 1/2"D plywood
- (4) 7"L of 3/8" sq. dowel
- (8) 5"L of 3/8" sq. dowel



Maker Camp 2015 » After-School Program » Week Nine





1. Using the craft knife, cut your 2 liter bottle into a 5" tall cylinder. Make sure that the top and bottom edges are straight and not jagged.



2. Apply stickers to your cylinder.



3. Spray paint it black. Allow the paint to dry completely.



4. Make a mark at the center of the 1" x 3" face of one of the 1" x 3" x 1/2" pieces of plywood.



5. Drill a hole with the 15/64" bit where you made the mark in step 4. Sand the edges of the hole down.



6. Glue the two 2" and 3" long pieces of plywood to the smaller bass wood square so that they form four walls.



7. Pull the lamp cord through the hole that you drilled in step 5. Use the needle nose pliers to bend the ends of the lamp cord into hooks.



8. Follow the instructions that came with your lamp cord to properly attach the cord to the lamp socket



9. Tuck the lamp socket into the compartment that you made in step 6.







10. Use the hole saw bit to make a hole in the center of the larger bass wood square. Make a mark about 1/2" from the edge of the hole.



11. Use the 1/16" bit to make a hole where you made the mark in step 10.



12. Starting from the bottom, measure 5" up the floral wire and bend it at a right angle.



13. Screw the light bulb into the socket. Place the wire into the hole that you made in step 11 and measure where the bent part of the wire is centered above the light bulb.



14. Bend the wire at another right angle so that it extends about 2" above the light bulb when placed into the hole that is drilled into the bass wood.



15. Glue the wire into the hole.



16. Using the compass and chipboard scrap, draw a circle that is slightly larger than the opening of the plastic cylinder that you made in step 1.



17. Cut the circle out.



18. Using the protractor, divide the circle into eight equal pieces.





19. Make two marks on each line segment: one about 1/4" away from the outer edge of the circle and the other 1/4" from the center of the circle.



20. Draw vents onto your circle that span between the two marks that you made on each line segment. Use the craft knife to cut the vents out. Only cut them on 3 sides!



21. Now make smaller vents between the large vents.



22. Poke a hole into the center of your circle and hot glue the bottom of the snap fastener to the hole. This is where the floral wire will be able to support the cylinder.



23. Peel off all of the stars that you applied to the cylinder.



24. Hot glue the cylinder to the chipboard circle.



25. Make two 5" x 7" frames with the square dowel pieces. The remaining square dowel pieces will be used to construct a rectangular prism.



26. Cut out shapes with your tissue paper and use the glue stick to glue them to the vellum. Here's where you can really be creative! What scene will you create?



27. Glue the remaining dowels to the two frames to create a rectangular prism. Glue your decorated vellum to the inside of the prism.







28. Glue the four remaining pieces of plywood to the bottom corners of your rectangular prism. These pieces will help with air flow.



29. Carefully lower the cylinder onto the wire followed by the rectangular prism onto the basswood stand. The plastic should not be touching the bulb and the vellum should not be touching the plastic.



30. Plug your new lamp into an outlet and enjoy the show!

