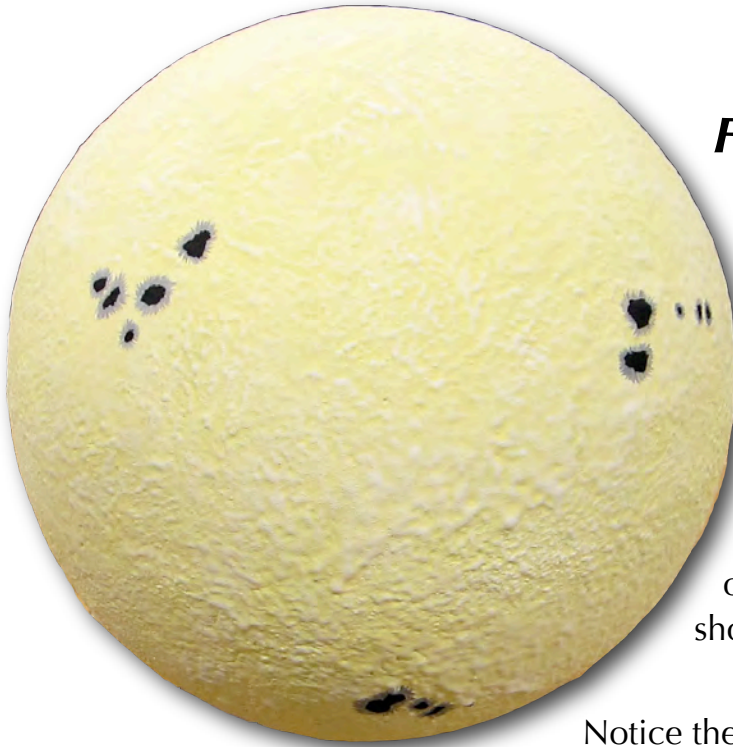


Sun Model

Construction Instructions



Forward - Use in the Planetarium

This sun model was originally created to be used with our comet nucleus model that includes working dual tails. But, it can be used at any time for most any purpose. It can be used by itself to represent our star, the sun. It can be part of a Solar System set of models. Other stars can be made to scale to show their size distribution.

Notice the sunspots. They include both umbrae and penumbrae and none are on the solar equator nor polar regions. They are a little larger than typical spots, only to be easier to see at a distance. The pale yellow-white is close to the true white color of the sun. Yes, the sun is visually white.

We think that you'll have lots of fun using this model.



Sun Model

Construction Instructions

Materials & Tools

- 12" White Smoothfoam half ball (2)
- Wooden base/plaque
- Wood screw
- 7/16" Dowel
- 2"x2" Wood
- Expandable foam
- Foam adhesive
- Joint compound
- Sand paper
- Foam Coat (You can get this from www.hotwirefoamfactory.com)
- Bounce (You can get this from www.hotwirefoamfactory.com)
- Acrylic paint
- Wood stain
- Matte clear acrylic coating
- Felt



Sun Model

Construction Instructions

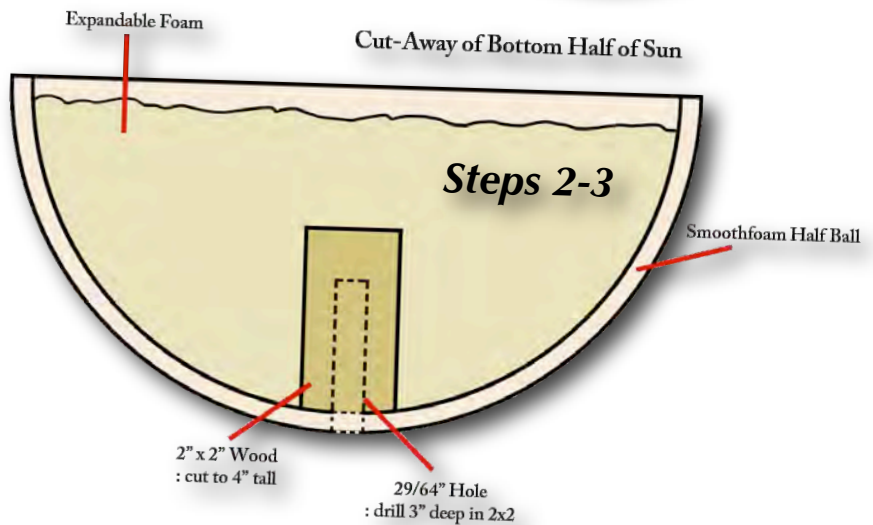
Instructions

1. Cut a hole in the middle of one of the half balls of styrofoam large enough for the dowel to fit through.



2. Cut a 4" piece of the 2x2.

3. Drill a 3" deep hole through the center of the length of the 2x2 to receive the dowel (I used a 29/64" drill bit.)



4. Put the 2x2 piece inside the half ball that you cut a hole in and insert a short piece of dowel through the half ball then into the 2x2 to keep the holes aligned while you fill the half ball with expandable foam. Completely cover the 2x2 with the expandable foam. Do this in two layers so you can weigh down or hold the 2x2 while the first layer sets to make sure the 2x2 doesn't shift.



5. Fill the other half ball with expandable foam.

Sun Model

Construction Instructions

6. Glue the two half balls together using foam adhesive.
7. Cut the dowel to length depending on how tall you want the sun to sit above the base. I cut mine 7 1/2" tall.
8. Drill a pilot hole in the center of the wooden base/plaque to prevent the screw from splitting the wood. Counter sink the hole on the bottom for the screw head if needed.
9. Drill a pilot hole in one end of the dowel so the screw will not split the wood.
10. Screw the dowel to the base.



11. Fill any gaps or dents in the sun with joint compound. When dry, sand smooth.

Sun Model

Construction Instructions

12. Coat the foam ball in a one-to-one mixture of Foam Coat and Bounce. I used two coats. While the second coat is setting up, use your brush to stipple in texture.



13. Paint the sun a mottled light yellow and the sunspots black and gray.



14. Stain or paint the base.

15. Seal the sun with the clear acrylic coating.

16. Apply felt to the bottom of the base.



Sun Model

Construction Instructions



Sun model designed and constructed by Cassandra Rose
Sun model concept and classroom instructional use by Adam Thanz

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Find this document and much more at the following link.

<http://www.baysmountain.com/planetarium-productions/>