



Paper Cup Planetarium

Using paper drinking cups, pre-made patterns, and a push-pin, you can make your very own projections of night-sky constellations!

Please note: This activity requires a little assistance from a caregiver.

Materials

Twenty 5-oz. paper drinking cups

Pre-printed constellation pictures (provided)

Push pins

Glue sticks

A bright, single-LED flashlight (optional) or a cell phone flashlight (optional)

Safety scissors

Directions for making your Paper Cup Planetarium

1. Select a constellation from the pre-printed sheet found at the end of this activity.
2. Cut out the circular image, which should fit easily on the end of a 5-oz paper cup.
3. With the glue stick, apply glue to the outside bottom of the paper cup, and press the constellation to it so the artwork is showing.
4. Using the push pin, carefully poke holes in each star of the constellation art.
5. The cup is now done!
6. Repeat for each of the constellation templates to make your own collection. Or feel free to make your own constellation to share with others.

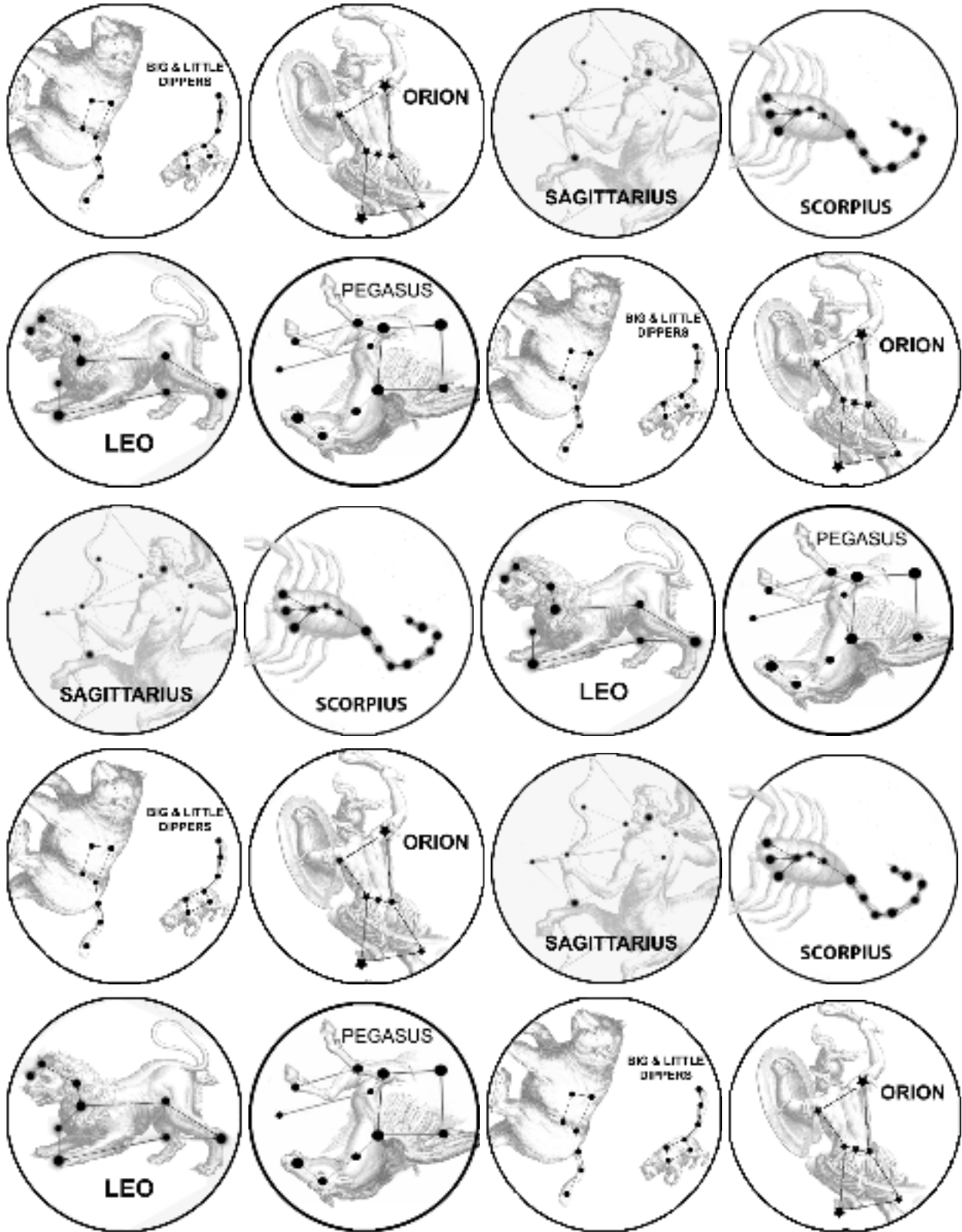


Directions for using your Paper Cup Planetarium

1. The constellation pictures are actually printed backwards when you look at them. That's so when you look from inside the cup, they will look like they do in the night sky.
2. So, take one of your cups and hold it up to a light. Peer up into the cup, and you should see the constellation that you just created!
3. You can also project your constellation onto a wall in a dark room. Hold your flashlight inside the cup, and aim the cup toward the wall. You just created a pattern of stars, the constellation that you made! For best results, you may want to use a single-LED flashlight to avoid multiple images being created on the wall. Or, you can use a cellphone flashlight.



Enjoy exploring the night skies from right at home!



PAPER CUP PLANETARIUM CONSTELLATIONS (designed for 5-oz cups) from Morrison Planetarium, San Francisco, CA WWW.CALACADEMY.ORG