Transcript: Inflatable Planetarium - Creating Stories in the Sky

This may look like a big inflated trash bag. Well, it sort of is. But beyond that, it's a unique setting used to introduce students to star patterns and let them create their own constellation stories.

This activity integrates science, language arts and gives students opportunity to show their creations to everyone on a homemade planetarium. It's a great activity to use at school, with a club, during a family event. But first, we need to build the planetarium.

You'll need a few supplies: a 20 by 50 ft. roll of 4 mil plastic sheeting -- be sure to get at least 4 mil thickness. Any thinner, and your planetarium may let in too much light. In addition, you'll need a roll of utility tape, a single black plastic trash bag, a ballpoint pen, scissors and a box fan. It's best to have at least one person to help you construct the planetarium.

Start by unrolling the 20 by 50 ft. sheet. Then fold it in half as show to create a 20 by 25 ft. rectangle. Next, tape the top sheet to the bottom sheet on all three sides of the rectangle. Using a French fold to tape the sheets together will ensure that no separation occurs later. You can see, here, that the tape will contact three surfaces of plastic when placed on a French fold. Though a bit tricky, this technique is very important. Complete the taping on all sides. Once the taping is complete, walk on all the taped seams to secure them. Now it's time to attach the fan.

Fold over one corner of the planetarium. Cut off the bottom of the plastic bag, creating a tube. Place the open tube of the plastic bag down on the planetarium and cut a hole the size of the plastic bag in only one layer of the planetarium. Tape one end of the plastic bag tube to the hole. Put the other end of the plastic bag tube on the fan and tape securely. The fan should be facing so that it will blow into the planetarium. Turn the fan on high and watch the planetarium inflate. Once the planetarium is inflated, turn the fan on low and cut a hole for a door. An inverted 'T' design works nicely for a door. I suggest placing the door as far away from the fan as is reasonable. Once the door is cut, turn the fan back on high. Your planetarium is now ready.

Our ancient ancestors used nighttime stars to create stories. In this activity, students will create their own stories and draw a pattern of stars on the lesson template.

Before entering or taking students in to the planetarium, be sure you have a flashlight and scissors or a box cutter for emergency exits if needed. Black plastic has been checked by safety experts and is nonflammable. The fan provides very good ventilation for up to 15 students.

And now for the star patterns. A ballpoint or a straightened paper clip can be used to punch holes in the plastic with a twisting motion. Students use their constellation sheets as templates to transfer their constellation to the plastic ceiling. From the inside, the resulting holes appear to be stars in a dark sky.

Once everyone has created their constellations on the planetarium, enjoy some time together

sharing the stories. Students can display and read their stories to others and have fun while practicing creative writing skills.

[Girl Scout] I liked drawing the picture and then looking at the sky and seeing everyone's different constellations.

[Girl Scout] What I liked best was poking the stars in the sky.

The black plastic planetarium is inexpensive, folds for easy storage and can be used for many years.