James & Anne Robinson Nature Center

Howard County Recreation & Parks
Robinson Nature Center
6692 Cedar Lane, Columbia, MD 21044
www.howardcountymd.gov/RobinsonNatureCenter.htm
410-313-0400

Earth's Place in Space – Teacher Pre-visit information

Concepts

The nighttime sky is dynamic, but what exactly causes it to change from one evening to the next? While seated in the comfort of our digital planetarium, witness the sunset and watch the transformation of our sky as the stars appear. Young students engage in making observations about the world around them as they see the movement patterns of objects in the sky.

Vocabulary

Gas – a substance possessing perfect molecular mobility and the property of indefinite expansion, as opposed to a solid or liquid.

Solid – an object having three dimensions (length, width, height)

Program Activities

In the planetarium, students explore the relationships between the Earth Moon, and Sun.

During the classroom portion, students act out a "Solar System Dance" to better grasp the concept of the revolution of the planets and Moon around the Sun.

Previsit Suggestions

1) Go to http://www.discoveryeducation.com/teachers/free-lesson-plans/planetary-profiles.cfm
And explore a planet or two with the free lessons "Welcome to the Planets" and "Views of the Solar System"

2) Use the Birthday Moons Activity at http://www.proteacher.com/redirect.php?goto=826

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Earth's Place in Space – Teacher Post-visit information

Dear Teacher,

We hope you enjoyed your recent field trip to the Robinson Nature Center. To help with follow-up in the classroom, we have developed the following post-visit materials:

1) Follow-up discussion
2) Follow-up activities

Follow-up Discussion

1) How many planets are in our solar system? Answer: 8

2) Which are the inner rocky planets? Answer: Mercury, Venus, Earth, Mars

3) Which are the outer planets and what are they made of? Jupiter, Saturn, Uranus, Neptune, made of gases

Follow-up Activities

1) Learning Planet Sizes Activity at http://www.proteacher.com/redirect.php?goto=826
2) Star Pattern

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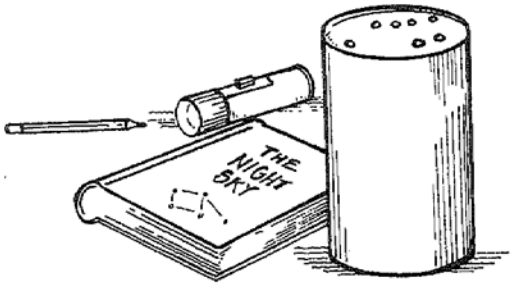
STAR PATTERN

How Can You Make Your Own Constellation?

MATERIALS

oatmeal box
pencil
large needle
flashlight small enough to fit in the oatmeal box
guide to constellations



PROCEDURE

1. On the bottom of the oatmeal box, draw dots in a pattern that stars make in the sky. Copy a constellation pattern.
2. With the needle, poke holes in the dots you have made.
3. Darken the room.
4. Turn the flashlight on and aim the beam at the bottom of the box.
5. Point the bottom of the box toward the ceiling. What do you see when you turn the flashlight on?

EXPLANATION

Constellations are clusters of stars that people have seen as patterns. When you poked holes in the bottom of the box, you created a star pattern. The light passing through the holes projected this pattern on the ceiling. This is similar to the way the image of stars is projected in a planetarium.