POWERHOUSE
SCIENCE CENTER
3615 Auburn Blvd., Sacramento 95821 (916) 674-5000

Topics

Astronomy

Grades

K

Duration

45 minutes

Vocabulary

sun, planet, moon, constellation, star

Next Generation

Science Standards

Practices

Asking Questions & Defining Problems

Crosscutting Concepts

Patterns

Systems and System Models

Our Place in Space

Overview

The program shows students a simulated night sky. Currently visible planets and constellations will be pointed out. Daily motion will be demonstrated. Program will then cover where Earth is in space. Other objects in the Solar System will be shown. Questions and answers are given according to students' abilities. Finally, a meteorite will be passed around so students can touch something that came from outer space.

Objectives

- Students will understand that we live on a planet in space.
- Students will be aware of celestial objects they can see.
- Students will be given the opportunity to ask and answer questions.

Teacher Preparation

- Please arrive at Powerhouse with enough time to allow students and chaperones to use the restroom before the program begins.
- If program starts late, content will be altered to fit available time.
- Planetarium shows require one adult chaperone per six students. Please group students with adults.
- The teacher is required to remain in the planetarium throughout the presentation.
- If your group includes students with special needs, be sure to notify Powerhouse in advance.
- Please insure that no light sources (phones, flashing shoes, etc.) will be used while the room is dark.
- Siblings are not allowed to sit in on the show.
- Planetarium seats a maximum of 70 people.

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Vocabulary

Sun: the star which Earth and the other planets orbit.

Star: an object in outer space that looks small but is actually very big and very far away.

Planet: one of the eight large objects that orbit the Sun.

Moon: a large object that orbits a planet.

Solar System: the Sun and the objects that orbit it, including planets, moons, asteroids and comets.

Did you know?

There are two golf balls on the Moon. In 1971 astronaut Alan Shepard used a makeshift golf club to hit two balls that remain on the Moon.

Quotes

"We should do astronomy because it is beautiful and because it is fun. We should do it because people want to know. We want to know our place in the universe and how things happen." - John N. Bahcall

"We are part of this universe; we are in this universe, but perhaps more important than both of these facts, is that the universe is in us." - Neil deGrasse Tyson

Our Place in Space

Extended Learning Activities

Star Pictures

Download the Orion spacecraft dot-to-dot from https://www.nasa.gov/sites/default/files/files/EP-2014-07-005-JSC-Orion-Connect-the-Dots.pdf Have students complete the picture of the Orion spacecraft. Tell students that people used to imagine that the stars made dot-to-dot pictures. We call these pictures constellations. Use any other dot-to-dot pictures you have to help reinforce the idea.

Star Party

Invite your local amateur astronomy club to put on a star party at your school or other location. Astronomy clubs are often a great way for students to see that astronomy can be a lifelong interest. Many astronomy clubs will participate for little or no charge.

Resources

NASA

https://www.nasa.gov/audience/foreducators/k-4/index.html

National Science Foundation

https://www.nsf.gov/news/classroom/astronomy.jsp

National Science Teachers Association

http://www.nsta.org/publications/freebies.aspx (Keyword: Astronomy)