Starry, Starry Night (Pre-K—Grade 2)

DESCRIPTION

Explore the heavens with your students as we view the nighttime sky in the Nathan & Fannye Shafran Planetarium. All the stars that are visible from Ohio are projected on the Planetarium dome. After a brief introduction of the objects and major constellations visible in the current evening sky, your class will view the planets, the Moon, and comets.

OBJECTIVES

- Name at least three constellations visible in the evening/morning sky
- Identify any planets visible to the unaided eye
- Differentiate between stars, planets, comets, the Moon, and the Sun
- Explain why stars have different colors

OHIO'S LEARNING STANDARDS

PRE-K

Science: Science – Science Inquiry and Application

- Explores and investigates objects and events in the environment
- Develops ability to reason about cause and effect

KINDERGARTEN

Science: Earth and Space Science – Daily and Seasonal Changes

- **K.ESS.2**: The moon, sun, and stars are visible at different times of the day or night.

GRADE 1

Science: Earth and Space Science – Sun, Energy, and Weather

- **1.ESS.1**: The Sun is the principal source of energy

Science: Earth and Space Science – Motion and Materials

- **1.PS.2**: Objects can be moved in a variety of ways, such as straight, zigzag, circular and back and forth

GRADE 2

Science: Earth and Space Science – Changes in Motion

- **2.PS.1**: Forces change the motion of an object.

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1 Wade Oval Dr., University Circle, Cleveland, OH 44106

Before your Program

At the museum (in house) programs:

If this will be your first trip to the Museum for some of your students, you may want to discuss the following questions:

- What is a Museum? Why are we going to the Cleveland Museum of Natural History?
- How should we handle objects at the Museum?
- Use the vocabulary and additional resources provided in this Teacher Guide to preview or review program content with your class.

VOCABULARY

constellations – star patterns that people use to make pictures of animals, people, monsters, and other objects in the nighttime sky

galaxy – a collection of gas clouds and millions or billions of stars that can take on a spiral, elliptical, or irregular shape. The Sun is a star in the Milky Way Galaxy

legend/myth – a story told among a group of people for entertainment and to link a group of people with cultural knowledge. Some legends are based on real events or used to explain things people observed in their surroundings; others are pure fantasy

meteor, shooting star – the momentary streak of light in the sky produced when a meteoroid passes through the Earth's atmosphere

meteoroid, asteroid – a small object made of dust or rock that circles the Sun

milky way – the Sun and Solar System belong to the Milky Way Galaxy. All the stars we see in the sky are part of the Milky Way, which appears as a hazy band across a very dark sky and contains several hundred billions stars

moon – an object in an orbit around a planet or asteroid. It does not give off its own light and is usually solid.

north star – Polaris is the only star that doesn't appear to move in the nighttime sky – we'll explore why!

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observatory – a building equipped with a telescope for viewing the real sky

planet – a large object that moves around a star in an orbit. It does not give off its own light and does not have to be solid

planetarium – a machine which projects images of stars, the Sun, the Moon, and planets on the inside of a large round room with a domed ceiling. The machine rotates to illustrate celestial motions. Other planetarium equipment takes you past planets and to outer space. Also refers to the building or room which holds the machine

star – Luminous hot balls of gas. The nearest example is our Sun. Stars come in different sizes and colors, appearing as tiny points in the nighttime sky because of their distance. Like our own Sun, stars produce their own light

ONLINE RESOURCES FOR TEACHERS AND STUDENTS

Click the link below to find additional online resources for teachers and students. These websites are recommended by our Museum Educators and provide additional content information and some fun, interactive activities to share with your class.

CMNH Educators regularly review these links for quality. Web addresses often change so please notify us if any links have issues.

Shafran Planetarium & Mueller Observatory

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