**Native American Star Stories**

60 Minute Space Science Lesson

Planetarium and Observatory Program

Grades: 3-5

**TEACHER GUIDE**

**Objectives**

* Identify any planets visible to the unaided eye in the current evening sky, and name at least three constellations visible after sunset.
* Give a reason why people tell stories and legends and relate two Indian star legends to a teacher or parent.
* Discover that we see different constellations at different times of the year.

**Description**

Why doesn’t coyote have a constellation in the sky, and who is endlessly chasing the bear around the North Star? Find out as we tell the entertaining and informative sky legends of native North Americans.

**Native American Star Stories**

**Ohio’s Learning Standards**

**Grade 4:** History – Heritage

* Various groups of people have lived in Ohio over time including prehistoric and historic American Indians, migrating settlers and immigrants. Interactions among these groups have resulted in both cooperation and conflict.

**Grade 5**: Geography – Human Systems

* American Indians developed unique cultures with many different ways of life. American Indian tribes and nations can be classified into cultural groups based on geographic and cultural similarities.

**Before Your Museum Visit**

# If this will be your first trip to the Museum for your students you may want to review the following:

# What is a Museum?

# What is our purpose for visiting The Cleveland Museum of Natural History?

# How should we handle objects at the Museum?

# Introduce the vocabulary and additional resources provided below

**Vocabulary**

**Bering land bridge** - an ancient land bridge which connected Asia with North America at various times during the ice ages.

**constellation** – A group of stars that form a pattern. Constellations are named after their shapes or often after figures from mythology.

**glacier** - A large mass of ice and snow that forms in areas where the rate of snowfall exceeds the rate at which the snow melts.

**meteor** - The momentary streak of light in the sky produced when a small particle of dust or rock passes through and burns up in the Earth’s atmosphere. The common name for a meteor is “shooting star”, but meteors have nothing to do with stars.

**Milky Way** - Our home galaxy. The Sun and solar system and all of the stars we see in the sky are part of the Milky Way. The Milky Way is also the name given to the hazy band of light stretching across a very dark sky, which is our galaxy seen edge-on from the inside.

**myth** - a traditional story, especially one about the early history of a people or one that explains some natural phenomenon. Myths typically involve supernatural beings or events.

**North Star** - Also called Polaris, the only star that doesn’t appear to move in the nighttime sky.

**observatory** - A building equipped with a telescope for viewing the real sky.

**rotation** – The turning or spinning around a center or axis. The Earth rotates once a day.

**Extension Activities**

1. Have the students describe the variety of objects that they see in the sky.
2. Ask if any students have visited a planetarium/observatory before and have them relate their experience to the class.
3. Have students and parents observe the night sky on a clear evening and compare it with what the students saw in the planetarium sky. A list of objects and constellations that they can look for in the clear night sky might be helpful.
4. Have students make Indian star pictures using the dot-to-dot method. Place a sheet of tracing paper over a drawing or picture of an Indian object, and have students draw in and number the dots. Classmates can connect each other’s dot pictures, and then compare them to the originals. Have students make up star stories about their constellations and tell their stories to the class.
5. Review a map of North America and discuss the different regions, such as the desert, woodlands, grass plains, or coast. Students may have traveled to these areas; explore what they can remember. Try to include climate, plants and wildlife in your discussion. Remember that the native people lived off the land and were keenly aware of what was around them.
6. Create a chart listing the different Native American cultural areas. Compare and contrast homes, tools, musical instruments, transportation, hunting and food sources, myths, stories and legends.
7. Write a class story about the planetarium visit.
8. Note the change in constellations that are visible as soon as it gets dark during the year. Students might want to keep a written notebook or a set of drawings for comparison.

Click the link below to find additional online resources. These websites are recommended by our Museum Educators and provide additional content information.

**Online Resources for Teachers and Students**

CMNH Educators regularly review these links for quality. Web addresses often change so please notify us if any links have issues. Please note that aside from our own Museum website, the Museum is not affiliated with and does not endorse these online resources.

Cleveland Museum of Natural History https://[www.cmnh.org](http://www.cmnh.org/)/edlinks

**Materials for Loan**

If you’re interested in additional resources be sure to check out the following ERC materials or browse ERC materials online at

<http://cmnh.hosting.l4u.com>

Related ERC kits for this topic include:

**Native American Dwellings:** Diorama

**Other:**

**Portable Planetarium**: Launch into space from your own classroom! The STARLAB Portable Planetarium allows you and your students to step into the universe and explore interactive, cross-curricular lessons about astronomy, history and more. This inflatable planetarium can hold 30 students and requires teacher training and reservations through the ERC.

The Educator Resource Center offers educator workshops, thematic teaching kits, animal dioramas, and more for loan to area teachers.

Contact the ERC at 216-231-2075 for information on individual or school membership.

Visit the Museum’s ERC website for more information on workshops https://[www.cmnh.org/ERC](http://www.cmnh.org/ERC)

**Hours**

* Monday through Friday, 1 to 5 PM
* Wednesday, 1 to 6 PM
* Saturday, 9 AM to 2 PM

**Educator Resource Center (ERC)**