**Sky Legends of the Ancient World**

60 Minute Space Science Lesson

Planetarium and Observatory Program

 Grades: 6-7

**TEACHER GUIDE**

**Description**

Journey back in time to hear exotic star myths of the early civilizations of India, Egypt, China and Mesopotamia. We’ll also relate creative stories of the constellations as told by the ancient Greeks and Romans.

**Ohio’s Learning Standards**

**Grade 6:** History – Early Civilizations

* Early Civilizations (India, Egypt, China, and Mesopotamia) with unique governments, economic systems, social structures, religions, technologies, and agricultural products flourished as a result of favorable geographic characteristics.

**Grade 7:** Earth and Space Science – Cycles and Patterns of the Earth and Moon

* The relative patterns of motion and positions of the Earth, Moon and Sun cause solar and lunar eclipses, and phases of the Moon.

**Grade 7:** History – Early Civilizations

* The civilizations that developed in Greece and Rome had an enduring impact on later civilizations. This legacy includes governance and law, engineering and technology, art and architecture, as well as literature and history.

**Objectives**

* Identify any planets visible to the unaided eye in the current evening sky, and name at least three constellations visible after sunset.
* Relate two legends from those heard in the planetarium.
* Identify at least one constellation pattern or celestial phenomenon unique to each culture described.
* Explain the characteristics of circumpolar stars, and describe their importance to the ancient cultures described.

**Sky Legends of the Ancient World**

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

**Before Your Museum Visit**

# 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**

**asterism** - A star pattern composed of obvious close groupings of stars, or extremely bright patterns of stars. (e.g. The Big Dipper, Seven Sisters, Belt of Orion, Summer Triangle)

**Chinese star legends** - the following concepts/characters will be presented - Chinese New Year, the star Ta Kio (Arcturus), Chih Nu (the Goddess of Weaving)

**circumpolar stars** - stars that never set from a given location but rather continuously circle about the celestial pole.

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

**Egyptian star legends** - the following concepts/characters will be presented - Imperishable Stars (Big Dipper), pyramids, Osiris, Isis, Nut.

**Greco-Roman star legends** - the following characters will be presented - Andromeda, Perseus, Cassiopeia, Cetus, Perseus, Cepheus, Ursa Major/Minor, Medusa, Pegasus, Orion, Taurus.

**Indian (Hindu) star legends** - the following concepts/characters will be presented – Mount Meru, Brahma, Vishnu, Shiva, the Seven Rishis, Rohini (Aldebaran)

**Milky Way** - Our home galaxy, made of hundreds of billions of stars and vast clouds of gas and dust. All of the individual stars seen on a clear night are nearby neighbors of the Sun in the Milky Way galaxy. The Milky Way is also the name given to the hazy band of light made up of countless faint stars visible to the unaided eye stretching across a dark sky. It is our disk-shaped 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 "Pole Star"), the only star that doesn't appear to move in the nighttime sky. The axis of the Earth extended above the North Pole points towards Polaris.

**zodiac** – The band of constellations through which the Sun, Moon and planets appear to travel.

**Extension Activities**

1. Find out how the planets and major moons in the solar system received their names (most are derived from mythology and literature).
2. Ask students to go outside after sunset equipped with a pad of paper, pencil and flashlight and draw as best they can some star groupings. A compass is useful for marking directions. Note the time of observation. When inside, students can compare their drawings to a star chart.
3. Make sure that students know where the North Star is in the sky as seen from their neighborhood.
4. Every culture has its own manner of forming stars into constellation patterns. Using unlabeled star charts, have students "connect-the-dots" to make their own constellations.
5. Investigate the history and culture of the ancient Egyptians, Indians, Chinese, Mesopotamians, Greeks and Romans. Can you find some star legends?
6. Note the seasonal change of nighttime constellation patterns. Can students think of a reason why they change? Might some legends account for this seasonal difference?

**Online Resources for Teachers and Students**

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

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:

**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)**