



# Sky Views

## A Pre-Visit Information Guide for Teachers

Meets Next Generation Science Standards: 5-PS1-3, 5-ESS1-1,2, MS-ESS1-1,2,3

This may be the first visit to the Planetarium for many of your students. We have found that both cognitive and affective learning can be increased when teachers use structured activities before and/or after the visit to create a context for the experience and link with the classroom instruction. In this guide we have provided some interesting facts about the Cormack Planetarium and include background information about the astronomy content that will be presented in **"Sky Views."** We encourage teachers to conduct pre-visit and post-visit classroom discussion and activities with their classes to make the most of their field trip experience.

### ABOUT THE CORMACK PLANETARIUM:

- In a planetarium, objects in the universe are projected, as they exist at any time in space.
- These celestial objects are projected onto a dome-shaped ceiling so it appears that one is looking up into the night sky.
- Our Star Projector is capable of displaying images of over 7,000 stars...many more than anyone can see without the aid of a telescope. Planets, comets, satellites and the Milky Way and Andromeda Galaxy can also be projected.

### SKY VIEWS

For thousands of years, people have looked to the night sky. Many cultures gave names, and told stories about the different objects they saw. "Sky Views" is a seasonal show created and produced by the Museum of Natural History and Cormack Planetarium. It will aid your students in understanding some of the science behind our views of the universe, as well as showing how to recognize constellations that students can see for themselves in the night sky.

The constellations that we recognize today were first named by the Ancient Greeks thousands of years ago. Peoples around the world have used the sky as a compass, a clock, and a calendar. Students will understand how the movement and orientation of the stars can be used to find directions, track the time of night, and more.

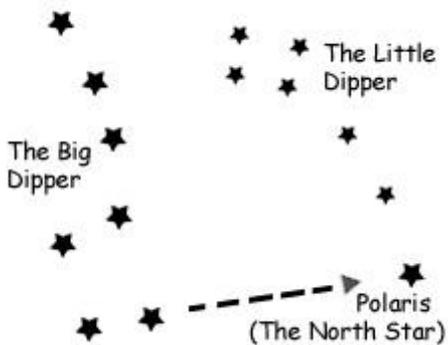
Recognizing constellations and understanding the daily and yearly changes in the sky is an important foundation for any student of astronomy. This show will point out objects that are visible to the naked eye or with telescopes, and then go deeper to explain these objects: How do stars form? What are star clusters? What are nebulae? Why do meteor showers occur? Students will gain a better appreciation for the science of astronomy and understand how to relate these phenomena to what they can actually observe in the sky.

### SUGGESTED CONCEPTS TO REVIEW INCLUDE:

CIRCUMPOLAR	METEOR SHOWER	PLANETS
COMETS	MOON	POLARIS
CONSTELLATIONS	NEBULAE	SATELLITES
ECLIPTIC	ORBITS	STAR CLUSTERS

## HELPFUL INFORMATION: FINDING THE NORTH STAR

As you observe the night sky over time, you will notice that the stars in the North don't appear to move across the sky with the other stars. Instead, they move in circles around Polaris, the North Star. If you have trouble finding the North Star, use this diagram to help.



**Find the Big Dipper. Locate the two stars at the front of the bowl. Draw an imaginary line through these stars. The star at the end of that line is Polaris, the North Star. It is found at the end of the handle of the Little Dipper, and is located directly above the Earth's North Pole.**

## ACTIVITIES:

Teachers are encouraged to conduct pre-visit and post-visit classroom discussions and activities with their classes to make the most of their experience. Have the students make a sky journal. Put together a collection of sky maps for each season. Include a blank page for the students' observations. Discuss the different objects they've noticed in the nighttime sky from their own backyard.

## WEBSITES

Space.com: See what the night sky looks like tonight  
<http://www.space.com>

StarChild: A Learning Center for Young Astronomers  
<http://starchild.gsfc.nasa.gov/>

For more links visit our website at:  
[www.providenceri.com/museum](http://www.providenceri.com/museum)