



Teacher's Guide to

# AMAZING STARGAZING!

## OBJECTIVES:

- To see how stars in different parts of the sky appear to move differently as the Earth rotates
- To learn what constellations are and why we have them
- To learn some of the major constellations of each season and how to find them
- To determine the difference between comets and meteors
- To see that some stars are different colors
- How to find artificial satellites in our night sky

This show conforms to the following Illinois state science standards: 12.F.1a, 12.F.1b, 12.F.2a, 12.F.2b, 12.F.2c, 12.F.3b. Next Generation Science Standards: 1.ESS1.1.1, 5.ESS1.2

## BRIEF SHOW DESCRIPTION:

Learn all the sky watching basics with the fun radio DJs from "Radio Aahs." Meet Aahsie and the gang as they happily explain the causes for day & night, moon phases, and the difference between comets and meteors. A great introduction to the night sky! Originally produced by the Minneapolis Planetarium. The show is presented as if you were listening to a radio station with multiple narrators.

## PRE-VISIT ACTIVITIES/TOPICS FOR DISCUSSION:

- Download star charts for the class from the Staerkel Planetarium web site and go over the current constellations now visible.
- Why have constellations? What good are they? [they can help us tell direction at night, we can tell time by the constellations, and we can use them as a calendar, so we know when to plant and harvest]
- Who has seen a "shooting star" before? They are really meteors and are bits of dust that burn up due to shock heating of our atmosphere.

## POST-VISIT ACTIVITIES/TOPICS FOR DISCUSSION:

- Have each student research a constellation and then present to the class. What are the major stars in each? What myths are told of the constellation? In what season can you see it and what are some of the things you can see in the constellation with a telescope?

## VOCABULARY LIST:

Asteroid	Meteor	Revolution
Constellation	Planet	
Comet	Rotation	

## INTERNET RESOURCES:

- Jim Kaler's "Star of the Week": <http://stars.astro.illinois.edu/sow/sowlist.html>
- List of constellations: <http://stars.astro.illinois.edu/sow/const.html>
- Comet information: <http://nineplanets.org/comets.html>

- Comet quarterly: <http://www.icq.eps.harvard.edu/CometMags.html>
- Stardust comet sample return mission: <http://stardust.jpl.nasa.gov/home/index.html>
- Deep Impact mission: [http://www.nasa.gov/mission\\_pages/deepimpact/main/index.html](http://www.nasa.gov/mission_pages/deepimpact/main/index.html)
- Where is the international space station? : <http://www.heavens-above.com>
- Close asteroid approaches: <http://www.spaceweather.com>