

Northern Stars Planetarium Program List 2008-2009

Teacher's Guides available at: www.northern-stars.com

15 Western Ave., Fairfield, ME 04937 John T. Meader, Director. jtmeader@verizon.net or info@northern-stars.com

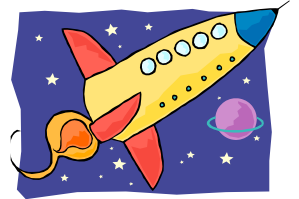
Astronomy & Space Science Presentations:

Pictures in the Sky (Preschool-K) Using our "Day/Night Wheel" and the planetarium, young children are introduced to the sky in a concrete manner. Discover day/night, stars, constellations, clouds, the Moon, rainbows, and much more. (PLEASE NOTE: 30 CHILDREN ABSOLUTE MAXIMUM)



ABC's of the Sky (K-2nd) A is for Astronaut, B is for Big Dipper, and C is for Comet.... Let's explore space and the sky through the course of the alphabet. Each concept will be fully explained in terms that young children can understand.

Our Family in the Sky (K-2nd) The planets are personified as Mr. Sun guides the children through a tour of the Solar System. Includes planets, comets, asteroids, the Moon, and a constellation point out.



Our Place in Space (1st-2nd) Follow the adventures of "Scarlett" the macaw as she solves a crossword puzzle about "Our Place in Space." Learn about day/night, the Sun, rotation, gravity, planets, and constellations.

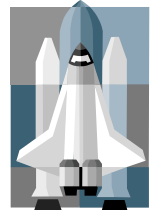
"Sandy, Pepper, and the Eclipse" and "Moon Witch!" (2nd-4th) A special "Double Feature" that discusses the Moon, Earth, and the Sun. A golden retriever named "Sandy" teaches your class about the relationship between the Earth, Moon and Sun that creates the spectacle of an eclipse. In "Moon Witch," a girl named Diana helps us discover the Moon's motions, phases and many appearances. Both story lines make this show a favorite with young audiences!



The Great Moon Adventure (4th-6th) Discover lunar features such as craters, maria, rilles, mountains, volcanoes, ejecta, etc. The Moon's motions, phases, and eclipses will all be examined. We also explore the Apollo Moon Missions and listen to Astronaut "Buzz Aldrin," the second man to walk on the Moon, describe what visiting the Moon was really like. **Newly Updated!**

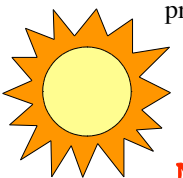
The Wonderful Sky (3rd-6th) This program takes a look at the seasonal night sky as seen with the unaided eye. Stars, constellations, visible planets, meteors, the Moon, and northern lights are all likely to be discussed.

A Ride On The Space Shuttle (3rd-5th) Learn the ins-and-outs of the space shuttle, how it works, what it does, and what a trip in space might be like. We will look at both the triumphs and the tragedies. A popular program about NASA's incredible machine.



Exploring Our Solar System (3rd-6th) Is Pluto a planet? Let's explore the planets and "dwarf planets", both as seen in the night sky and as visited by space probes. The program ends with a dramatic scale model demonstration of the Solar System. This show is continually **Newly Updated!**

Mars Magic (3rd-7th) Mars is a planet that has captured the imagination like no other. Examine the red planet and see what we've discovered about Martian germs, rust, rocks, faces, canals, rivers, canyons, and volcanoes. Meet the space probes that have visited this planet: Spirit, Opportunity, Viking, Pathfinder, Sojourner, Mars Global Surveyor, and others.



Stars (5th-8th) What are stars and how do they work? Exploring the Sun first, we then discuss star colors, how stars are created, and how they die yielding white dwarfs, supernovae, and the most mysterious objects of all--black holes. **Newly Updated!**

The Sky Tonight (6th-8th) See what might be visible in the sky during the time of year we visit your class. As we travel through the constellations, we will discover various nebulae, star clusters, galaxies, and planets that one can find with a small telescope or binoculars.

Ideas & Discoveries (6th-8th) This program presents three "hot ideas" in astronomy today. Topics covered will be: 1. Should Pluto be declassified as a planet? 2. How are scientists discovering new solar systems? 3. "Saving the Night" --light pollution and why everyone should care.



Sky Maps (5th-8th) Discover three methods for locating objects in the night sky: 1. altitudes and azimuth; 2. a coordinate system called Declination and Right Ascension (similar to latitude and longitude—we'll talk about these too!); and 3. the oldest method of mapping the sky, constellations. Students learn how scientists find sky objects, and how your students can find them too. Students will learn about grids, degree angles in the sky, time, and several constellations.



**Story Telling, Earth Science, & Life Science Presentations
Listed on the Back!**

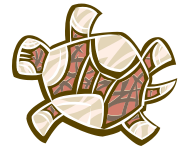
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Story Telling Presentations:

Star Stories (1st-2nd) This program is a collection of stories, myths, and legends about the sky and constellations. All the stories have been chosen and adapted to suit younger children. Stories include: *How the Stars Came to Be*, *Orion and the Bull*, *Andromeda and the Whale*, and others.



"Follow the Drinking Gourd" (2nd-4th) Learn how slaves found their way north using the stars of the Big Dipper or "drinking gourd." A great mix of cultural studies, music and astronomy. Come *follow the drinking gourd* with us!

Native American Sky Legends (3rd-6th) A live storytelling program featuring Native American sky legends. This is a perfect program to unite astronomy with Native American studies or a language arts unit.



Heroes, Gods, & Monsters (5th-8th) A live storytelling presentation on Greek and Roman myths about the stars, and constellations. The myths presented vary with the time of year, but may feature stories such as: *The Myth of Orion*, *The Labors of Hercules* or *Andromeda and the Whale*. This is a great introduction to classical mythology.

A World of Sky Stories (3rd-6th) Legends of the sky from around the world are told live under the stars. Hear stories from Australian Aborigines, Inuit (Eskimo), African Tribes, the Orient, the rainforests of South America and more.

Earth Science Presentations:



Earth, The Ocean Planet (4th-6th) Explore the wettest planet in the Solar System. This program concentrates mainly on physical oceanography: tides, waves, ocean currents, ice caps, the water cycle, mapping the oceans' floors, and human exploration in submersibles (spaceships of the sea!).



Volcano! (3rd-7th) We begin by examining the different types of volcanoes using Mount St. Helens and Hawaiian volcanoes as examples. Continental drift, plates, and earthquakes are also examined. Find the locations of plates, faults and volcanoes on our new all-dome world map. The program then searches the Solar System for volcanoes on other worlds. **Newly Updated!**

Weather and the Seasons (5th-8th) Why do we have seasons and how do basic weather systems work? Learn forecasting skills with our portable weather station and its instruments. (NOTE: THIS SHOW IS MOST EFFECTIVE IF YOU ARE ACTIVELY STUDYING WEATHER.)



Discovering Geography with Columbus (3rd-6th) This program examines the study of geography while following Christopher Columbus on his adventures. This show goes great with studies of geography or explorers.

Life Science Presentations:



World Of the Dinosaurs (1st-3rd) We begin by examine dinosaur bone reproductions and fossils, discovering how scientists learn so much from a bunch of bones. The show culminates with a 25-minute audio-visual planetarium presentation about dinosaurs.

Birds in the Planetarium (3rd-5th) Learn how birds have adapted to their environments by studying varying styles of beaks, claws, wings, and feathers. Discover how some birds actually use the stars to help them migrate. The program closes with a demonstration of birdcalls--a favorite activity.

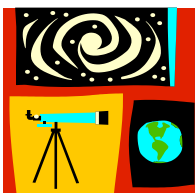


Migration (5th-8th) Learn why birds migrate, which birds do and which birds don't, and why various species follow very different routes. See how the natural geographical features of Earth affect where different species go and how they get there. The stars, magnetism, wind, land features, and the Sun all play a role. These are illustrated on a full-dome world map showing important migration routes.

Biology of the Cell (5th-7th) This life science presentation examines the workings of the living cell. Through visuals and careful explanations, we will gain an understanding of the workings of a typical animal cell. Organelles, genes, mitosis, cell size, and the role of the cell within a living being will all be discussed. These components are illustrated by turning the dome into a giant cell over our heads!



Special Offerings:



Teacher Workshops: Northern Stars Planetarium offers a variety of Teacher Workshops covering classroom astronomy activities, as well as constellation workshops. Call for more information.

Star Parties! Explore the real night sky with our telescopes. We'll bring our five telescopes to your school or location; there are telescopes that can be used by students, as well as a larger one that will always be viewing something special for all to see. Let our viewing expertise guide you through the skies above your school. Learn how to use a telescope. See the wonders of the night sky first hand.



Astronomy Programs on the other Side.

