8.29.2018

Planetarium
Planetarium seating capacity is 48 people.

Live Shows

The Sky Tonight – Grades K-12 (30-45 minutes)
This is a live, interactive tour of the current evening sky. Bright stars, constellations, planets, and any unusual sights are highlighted during this program. Questions from the audience are encouraged after the show. This show is adapted for different grades and levels of interest.

SC.K.12.3.C Make observations to determine the effect of sunlight on Earth's surface.
SC.1.11.3.A Use observations of the sun, moon, and stars to describe patterns that can be predicted
SC.5.11.3 Gather and analyze data to communicate understanding of space systems: Earth's stars and solar system.
SC.5.11.3.B Support an argument that differences in the apparent brightness of the sun compared to other stars is due to their relative distances from Earth.
SC.5.11.3.C Represent data in graphical displays to reveal patterns of daily changes in the length and direction of shadows, day and night, and the seasonal appearance of some stars in the night sky.
SC.8.11.6.A Develop and use a model of the Earth-sun-moon system to describe the cyclic patterns of lunar phases, eclipses of the sun and moon, and seasons.

First Stars – Grade Pre-K (about 15 minutes)
A shortened version of *The Sky Tonight* for very young sky watchers introduces the planetarium and its starry sky. This show begins with a sunset and ends with sunrise.

SC.K.12.3.C Make observations to determine the effect of sunlight on Earth's surface.

Full Dome Shows

Full dome shows are pre-recorded and include a video image covering nearly the entire dome. A short Sky Tonight full dome may be added at the close of the full dome show if desired. *****

***OC** = Open Captions. If **OC** is at the end of the description, captions of the shows narration can be turned on and seen by everyone in the chamber. This is for patrons that are hearing impaired.

One World, One Sky: Big Bird's Adventure – Grades Pre K-2 (25 minutes)
Discover the Big Dipper, the North Star, the Sun, and the Moon with your *Sesame Street* friends.

SC.K.12.3.C Make observations to determine the effect of sunlight on Earth's surface.
SC.1.11.3.A Use observations of the sun, moon, and stars to describe patterns that can be predicted.

The Little Star That Could – Grades K-3 (37 minutes)
The Little Star discovers how stars are born, die, and why stars are different colors. Near the end of his search, the Little Star finds out about planets.

Rusty Rocket's Last Blast – Grades 1-5 (39 minutes)
Audiences will get an introductory tour of the solar system, focusing on the wide variety of planetary environments and immense distances between them.

SC.5.11.3 Gather and analyze data to communicate understanding of space systems: Earth's stars and solar system.
SC.5.11.3.A Support an argument that the gravitational force exerted by Earth on objects is directed down.
SC.5.11.3.B Support an argument that differences in the apparent brightness of the sun compared to other stars is due to their relative distances from Earth.

Earth, Moon & Sun – Grades 2-5 (27 minutes)
Learn about the relationship between the Earth, Moon and Sun with the help of Coyote, a fun character adapted from Native American oral traditions. **OC**

SC.1.11.3.A Use observations of the sun, moon, and stars to describe patterns that can be predicted.
SC.5.11.3.C Represent data in graphical displays to reveal patterns of daily changes in the length and direction of shadows, day and night, and the seasonal appearance of some stars in the night sky.

Flight Adventures – Grades 3-8 (20 minutes)
Discover the science and history of flight through the eyes of a young girl and her grandfather as they explore how birds, kites, planes, and models fly.

Two Small Pieces of Glass – Grades 3-12 (25 minutes)
At a modern star party, see how Galileo Galilei built a "spyglass" and first aimed it to the heavens over 400 years ago. **OC**

To Space & Back – Grades 4-12 (25 minutes)
To Space & Back takes audiences on an incredible journey from the far reaches of our known universe to our own planet. It is an extraordinary story of human ingenuity and incredible engineering, describing how the technology that transports us through space is paving the way for the devices and apps we use every day. What is happening above is coming back down to Earth!

Dawn of the Space Age – Grades 4-12 (41 minutes)
From the launch of the first artificial satellite Sputnik, to the magnificent lunar landings and privately operated space flights — be immersed and overwhelmed with this most accurate historic reconstruction of man's first steps into space. Who were these men and women who took part in these death-defying endeavors? Witness their drive, their passion, and their perseverance to explore... in Dawn of the Space Age.

Extrasolar Planets: Discovering New Worlds – Grades 4-12 (31 Minutes)
Earth revolves around a star that is no different in size than any other. Astronomers today are using specialized equipment to observe stars in our galaxy to search for a star that might have planets orbiting it. This discovery would prove once and for all that we are not alone.

SC.HS.11.1.A Develop a model based on evidence to illustrate the stages of stars, like the sun, and the role of nuclear fusion in the sun's core to release energy that eventually reaches Earth in the form of radiation.
SC.HS.11.1.B Construct an explanation of the Big Bang theory based on astronomical evidence of light spectra, motion of distant galaxies, and composition of matter in the universe.
SC.HS.11.1.D Use mathematical or computational representations to predict the motion of orbiting objects in the solar system.

Nine Planets and Counting – Grades 4-12 (37 minutes)
Discover planets and other celestial objects with a journey through the Solar System. This show was produced in 2006 just before Pluto was demoted to dwarf planet status.

SC.HS.11.1.A Develop a model based on evidence to illustrate the stages of stars, like the sun, and the role of nuclear fusion in the sun's core to release energy that eventually reaches Earth in the form of radiation.
SC.HS.11.1.D Use mathematical or computational representations to predict the motion of orbiting objects in the solar system.

Season of Light – Grades 4-12 (36 minutes)
We discuss the Winter Solstice and the origins of holiday traditions, concluding with a possible explanation for the famous Star of Bethlehem.

SC.HS.11.1.D Use mathematical or computational representations to predict the motion of orbiting objects in the solar system.

Sunstruck! – Grades 5-8 (22 minutes)
Heliophysics is the main component of the Sunstruck! It includes information on the sun, parts/layers, space weather, and its impact on Earth. We used several NASA heliophysics missions including SOHO, IRIS, and SDO. The audience should gain an enhanced understanding of the Sun and how it impacts our world. **OC**

SC.HS.11.1.A Develop a model based on evidence to illustrate the stages of stars, like the sun, and the role of nuclear fusion in the sun's core to release energy that eventually reaches Earth in the form of radiation.
SC.HS.11.1.C Communicate scientific ideas about the way stars, throughout their stellar stages, produce elements.

Seeing! – Grades 5-12 (27 minutes)
Ride a photon across the galaxy to your mind's eye and experience how we see. "Seeing!" follows a photon's creation and journey across the galaxy to a young stargazer's eye. The viewer follows the photon into the girl's eye, learning the structures of the eye and their functions, prior to taking a ride on the optic nerve. **OC**

SC.8.11.6.C Analyze and interpret data to determine scale properties of objects in the solar system.

Black Holes (10 Anniversary Edition) – Grades 6-12 (35 minutes)
Some of the most mysterious objects known, black holes defy the imagination. Explore how black holes form, their strange properties, and what exactly would happen if you got too close!

SC.HS.11.1.A Develop a model based on evidence to illustrate the stages of stars, like the sun, and the role of nuclear fusion in the sun's core to release energy that eventually reaches Earth in the form of radiation.

SC.HS.11.1.C Communicate scientific ideas about the way stars, throughout their stellar stages, produce elements.

Infinity Express – Grades 5-12 (25 minutes)
Learn the latest breakthroughs in our quest to understand the universe with Hubble Space Telescope images, and more.

SC.8.11.6.C Analyze and interpret data to determine scale properties of objects in the solar system.

SC.HS.11.1.D Use mathematical or computational representations to predict the motion of orbiting objects in the solar system.

Solar Quest – Grades 5-12 (12 minutes)
This short feature demonstrates how the Sun and Earth are interconnected and that we are "Living with a Star".

SC.8.11.6.A Develop and use a model of the Earth-sun-moon system to describe the cyclic patterns of lunar phases, eclipses of the sun and moon, and seasons.

SC.HS.11.1.D Use mathematical or computational representations to predict the motion of orbiting objects in the solar system.

IBEX: Search for the Edge of the Solar System – Grades 7-12 (30 minutes)
This show follows the creation of NASA's Interstellar Boundary Explorer (IBEX) and gives audiences an in-depth look at the mission.

SC.HS.11.1.D Use mathematical or computational representations to predict the motion of orbiting objects in the solar system.

Cosmic Origins Spectrograph – Grades 9-12 (30 minutes)
This show covers the basics of spectroscopy at a fairly high level, and touches on the processing of galactic and extragalactic gas. Other topics include the use of quasars as background light sources, cosmic evolution, and the development of the large scale structure of the universe.

SC.HS.11.1.D Use mathematical or computational representations to predict the motion of orbiting objects in the solar system.

DARK, The Movie – Grades 9-12 (20 minutes)
Explore the nature of Dark Matter, the missing 80% of the mass of the Universe. Finding answers will help us understand why the Universe is as it is, where it came from, and how it has evolved over billions of years. **OC**

SC.HS.11.1.D Use mathematical or computational representations to predict the motion of orbiting objects in the solar system.

Other Activities

Solar Observing – Grades 4-12 (approximately 20 minutes)

Participants safely view the Sun in three different ways: with the unaided eye, through a telescope equipped with a white-light solar filter, and a hydrogen-alpha filter. The outside temperature must be at least 30° F. This activity is recommended for groups of 20 people or less.

Seasonal Star Gazing

The Sky Tonight in Full Dome is a seasonal sky show discussing the highlights of the current season: Fall, Winter, Spring, or Summer. It discusses the issue of light pollution and how it effects our view of the night sky. It is offered in two formats: the full show and mini show. The full show averages 14 minutes and the mini show averages 7 minutes.

SC.K.12.3.C Make observations to determine the effect of sunlight on Earth's surface.

SC.1.11.3.A Use observations of the sun, moon, and stars to describe patterns that can be predicted

SC.5.11.3 Gather and analyze data to communicate understanding of space systems: Earth's stars and solar system.

SC.8.11.6.A Develop and use a model of the Earth-sun-moon system to describe the cyclic patterns of lunar phases, eclipses of the sun and moon, and seasons.