LUNAR AND PLANETARY INSTITUTE

Parks' Guide to Solar System Exploration:
The Dawn Mission to the Asteroid Ceres

exploration

Explore Asteroids and the Solar System in Your Park!

With open spaces and open views of the sky, parks are ideal locations for learning about the solar system and how we explore it! Use the information and resources below to create a program for your visitors to explore asteroids and the solar system. Create a solar system exploration program that fits your park's schedule and needs. Consider fitting comets into your ongoing park programming – lectures for inquisitive adults, take-away fliers for visitors that connect to night sky viewings, or local stories about the solar system. If you include hands-on activities in your programs, select one from the list below to celebrate the Dawn mission and then encourage visitors to follow the news and explore more on their own!

Why Explore the Solar System?

Interest in the stars and planets has been both a common and consistent characteristic of humanity. We are driven to explore what we don't know, discover new things, push the boundaries of our limits, and beyond. For now, humans must stay close to Earth when exploring space. Until the day humans can routinely visit other planets, we must rely on robotic spacecraft to be our eyes throughout the solar system. Exploring the solar system is not easy and individual missions do not last forever. At some point, all missions must come to an end. However, in the human spirit of exploration, we should always look forward, ready to explore farther.

Exploring Asteroids with Dawn

Dawn delves into the unknown, drives new technology innovations, and achieves what's never been attempted before. Dawn has orbited the asteroid Vesta and, beginning in March 2015, will explore a second new world, Ceres, the solar system's largest asteroid. Dawn's goal is to characterize the conditions and processes of the solar system's earliest history by investigating in detail two of the largest asteroids remaining intact and relatively unchanged since their formation. Dawn's investigations of Ceres and Vesta take us back in time to when the solar system was very young.

Upcoming Events

Find information and resources about upcoming celestial events and NASA mission milestones to share with your visitors at http://www.lpi.usra.edu/education/look_up.

@NASASolarSystem
@NASA_Dawn

Night Sky Viewing Events

Consider holding a night sky viewing at your park! Viewing planets through telescopes will give your visitors a personal connection with the very same objects being visited by spacecraft. Ask your local astronomical society to bring their telescopes for a viewing. Use the links below to locate a local astronomy club and/or speaker.

Night Sky Network
http://nightsky.jpl.nasa.gov/clubs-and-events.cfm
The Night Sky Network is a nationwide coalition of amateur astronomy clubs bringing the science, technology, and inspiration of NASA's missions to the general public.

NASA/JPL Solar System Ambassadors
http://www2.jpl.nasa.gov/ambassador/directory.htm
Solar System Ambassadors is a nationwide program consisting of volunteers who communicate the excitement of NASA/JPL's space exploration missions and information about recent discoveries to people in their local communities.

Websites

NASA's Dawn Mission
http://dawn.jpl.nasa.gov/

Asteroids: An Overview
http://solarsystem.nasa.gov/planets/profile.cfm?Object=Asteroids

Dwarf Planets: An Overview (Ceres)
http://solarsystem.nasa.gov/planets/profile.cfm?Object=Dwarf

NASA Solar System Exploration
http://solarsystem.nasa.gov/index.cfm

Eyes on the Solar System
http://eyes.nasa.gov/index.html

Exploration Stories: Scientists' Favorite Historical Moments
http://solarsystem.nasa.gov/50th/stories.cfm

Explore the solar system with hands-on activities!

Crater Creations
http://www.lpi.usra.edu/education/explore/LRO/activities/craterCreations/index.shtml
Grade Level(s): K-12
Like the Earth's Moon, the surfaces of asteroids are scarred with impact craters. This activity explores how craters form on solid surfaces throughout the solar system.

Strange New Planet
http://marsed.asu.edu/strange-new-planet
Grade Level(s): K-8
This activity is about the use of remote sensing in planetary exploration. Learners will find out how human curiosity in planetary exploration results in science questions, engineering solutions, and teamwork.

Other NASA educational activities for exploring the solar system can be found at http://nasawavelength.org.