

# **Libraries' Guide to Solar System Exploration:**The Dawn Mission to the Asteroid Ceres

# **Explore Asteroids and the Solar System in Your Library!**

Use the resources below to create a program for your patrons to explore the solar system, including asteroids. Look for books in your collection about asteroids and/or space exploration. Create a solar system exploration program that fits your library's schedule and needs. Consider fitting solar system exploration into your ongoing programming – lectures for inquisitive adults, family programs, and children's programming. Perhaps design a week-long investigation into the solar system with hands-on activities, demonstrations, and video clips, presentations by solar system researchers from local colleges or universities, and a culminating night-sky viewing event. Alternatively, facilitate an activity for your young patrons to celebrate the Dawn mission and then encourage them 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 patrons at http://www.lpi.usra.edu/education/look\_up.







### Night Sky Viewing Events

Consider holding a night sky viewing at your library! Viewing planets through telescopes will give your patrons 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!

#### **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.

http://www.lpi.usra.edu/education/look up