INFORMATION FOR HOSTS

What is the goal of the Dawn Mission?

This mission seeks to understand the conditions at the formation of the solar system. It forms a bridge between the exploration of the rocky inner solar system and the icy outer solar system.

Take 7 minutes and listen to the podcast Interview of Dawn Principal Investigator, Chris Russell, as he explained the mission on 3/15/08. http://dawn.jpl.nasa.gov/multimedia/audio/cr_dawn_abc.mp3

How do we get there? Ion Propulsion!

The Dawn spacecraft uses ion propulsion to get the additional velocity needed to reach Vesta once it leaves the Delta rocket used to get outside of Earth's atmosphere and gravity. It also uses ion propulsion to spiral to lower altitudes on Vesta, to leave Vesta and cruise to Ceres and to spiral to a low altitude orbit at Ceres. The efficiency of ion propulsion allows the spacecraft to accelerate to a velocity ten times that of chemical rockets.

What is the difference between an asteroid, protoplanet, and dwarf planet?

Asteroid - small rocky body that range in size from small rocks to Vesta to the largest body, Ceres.

Protoplanet - baby planet whose growth was interrupted by the formation of Jupiter. They are mostly round, but may be irregular in shape. Vesta is irregular because other space rocks have collided with it and knocked off bits. Those bits became debris in the asteroid belt known as Vestoids, and even hundreds of meteorites that have ended up on Earth.

Dwarf planet - body that (a) orbits the Sun, (b) has enough mass so that it assumes a nearly round shape, (c) has not "cleared the neighborhood" around its orbit, and (d) is not a satellite of another body.

What kind of questions should you ask participants?

What are asteroids? What questions do you have? [Answer what you know, but remember curiosity is a good thing for everyone to have – so you don't need to be able to answer all of these, but encourage participants to seek answers to their questions!]