DAWN ACTIVITY LEADER GUIDE

MODELING VESTA IN 3-D

Goal:

Translate images of Vesta into a 3-D model.

Estimated time:
10–20 minutes

Who to do it with:
Ages: 8–Adult
Numbers: 4 or more!

What you need:

Per group (groups of 4 work best)

- Grey and white modeling clay
- Scissors or plastic knife
- A copy of the images (found on page 2 of Modeling in 3-D instructions)

Advanced preparation:

1. Download the Modeling in 3-D instructions and images from http://dawn.jpl.nasa.gov/DawnKids/.
2. Print one copy of the second page for each group of participants.

How to do it:

1. Show the Hasta La Vesta! logo.
   a. Why is Vesta shaped so funny? (The south pole is a crater!)
   b. What are some reasons why parts of Vesta appear light while others are dark?
   c. Ask how this is similar to or different from our Moon.
2. Follow the directions on the instructions and images page.

Optional:

3. Follow-up by constructing the Vesta Flipbook and watching the rotation of Vesta!

Tip: The grey clay ball is only cut twice – so each participant should start with a wedge like a quarter of an orange (shown below).

Why do it:

The images shown in the instructions are from the Hubble Space Telescope. Vesta's surface is covered in bright and dark features, and its shape was created by a giant impact. Some of the colored spots we see in the Hubble images turned out to be craters and lava flows like the Lunar Mare on our moon! Since its arrival at Vesta, we have received many more cool images from the Dawn Spacecraft. See them at http://dawn.jpl.nasa.gov/multimedia/imageoftheday.