



The Asteroid Alphabet

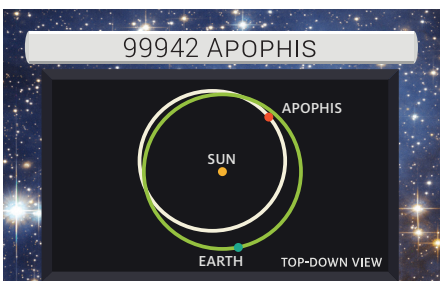


— Apophis —

Journey with us through the alphabet as we learn about Earth's rocky neighbors – the asteroids! There are interesting asteroid characters in our solar system, including an asteroid that has its own moon and even one that is shaped like a dog bone! For each letter of the alphabet, we will showcase an asteroid in our solar system and demonstrate its orbit around the Sun. Visit the Galleries page of AsteroidMission.org – home of the Asteroid Alphabet cards – to collect them all!

Asteroids orbit the Sun in many different areas of our solar system. The Main Belt asteroids lie between Mars and Jupiter. There are also asteroids whose paths around the Sun bring them close to Earth. Those asteroids are called Near-Earth Asteroids, or NEAs. Another group of asteroids, called Trojans, can be found orbiting different planets in gravitationally-neutral areas.

The latest Asteroid Alphabet card is below! Be sure to check out the Instructions for Assembly and Helpful Hints for putting together this new addition to your Asteroid Alphabet card collection!



99942 APOPHIS


Apophis, named after the Egyptian god of chaos, is a potentially hazardous asteroid that caused panic in 2004 when early calculations indicated it could impact Earth in 2029. Later observations ruled this out, but Apophis was once the highest rated near-Earth object on the Torino Impact Hazard Scale.

Discovered: June 19, 2004 Discoverers: Tucker, Tholen, Bernardi

ORBITAL CHARACTERISTICS
Orbital Eccentricity: 0.19
Inclination: 3.3 degrees
Orbital Period: 323 days
Perihelion Distance: 0.75 AU
Aphelion Distance: 1.10 AU

ASTEROID CHARACTERISTICS
Diameter: 0.38 kilometers
Rotation Period: 30.6 hours
SMASII Spectral Type: Sq

Close approach of Apophis in 2029, about 31,300 km from Earth
Image Credit: University of Arizona



OSIRIS-REx
ASTEROID SAMPLE RETURN MISSION

National Aeronautics and Space Administration
www.nasa.gov

Instructions for Assembly

1. Print this page out.
2. Cut along the dotted lines, leaving a white border around the card.
Kids, be sure to get an adult's supervision during this step!
3. Fold along the solid center line, so that the blank sides are facing each other.
4. Tape along edges.

Helpful Hints

- Using cardstock or a thicker paper will result in a sturdier card.
- For best results, print in color and use double-sided tape or a gluestick to affix the two sides together.

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Exploring Our Past, Securing Our Future Through Pioneering Asteroid Science

NASA's Origins, Spectral Interpretation, Resource Identification, Security-Regolith Explorer (OSIRIS-REx) mission is the first U.S. mission to fly to, study, and retrieve a pristine sample of an asteroid and return it to Earth for further study. The OSIRIS-REx spacecraft's target is asteroid Bennu, the most accessible carbonaceous asteroid and one of the most potentially hazardous to Earth late in the 22nd century. Its bulk properties have been well studied by ground and space-based telescopes, greatly reducing mission risk and providing strong evidence for the presence of material available for sampling.