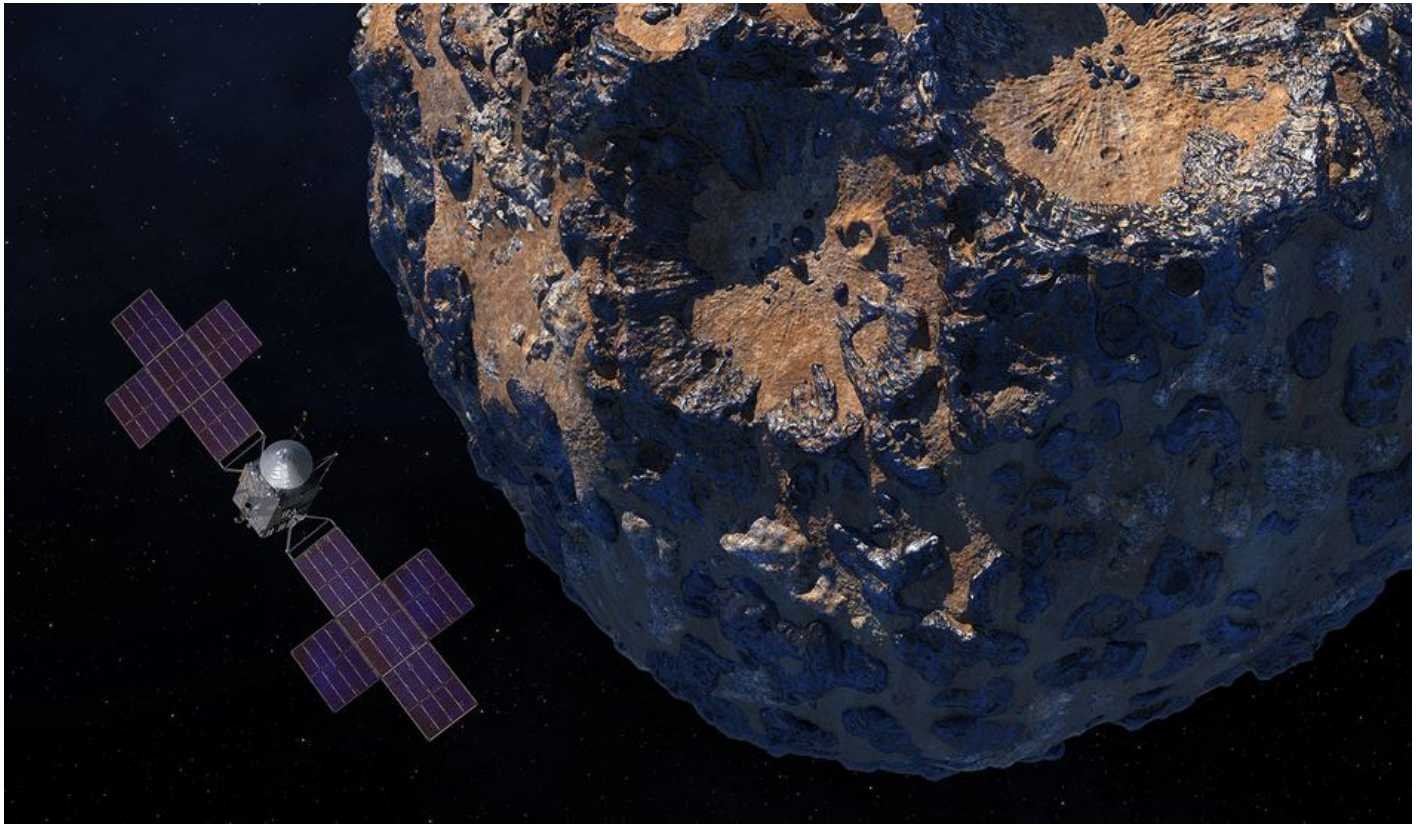


What is the Psyche Mission?

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About Psyche Mission

- It is a NASA mission that will explore a 140-mile-wide (225-kilometers) metallic asteroid called 16 Psyche.
- The spacecraft will enter the 16 Psyche asteroid's orbit in 2029 and spend two years mapping the asteroid's topography, scanning the surface, taking pictures, and more, with the aim of gaining information about its makeup as well as learning how metal core asteroids and planets are formed.
- The objectives of the mission include determining the age of regions on the asteroid, studying its formation, characterizing its topography, and studying dips in the asteroid's gravity. Through the mission, scientists also hope to explore an unknown building block of planet formation: iron cores.
- It will also be the first time that a spacecraft will study a world made not of rocks and ice but of metal.
- With the Psyche mission, scientists have a chance to study how terrestrial planets were formed without having to carve up the Earth.
- 16 Psyche:
 - It is currently orbiting the Sun between Mars and Jupiter.
 - It was discovered in 1852 by the Italian astronomer Annibale de Gasparis.
 - It is made up of gold, silver, and nickel deposits, making it metal-rich.
 - According to NASA, it could be worth more than Earth's economy put together.

- The outer surface of this asteroid is nickel-rich, which resembles an early planet's core.
 - It is also one of the biggest asteroids in our solar system-279-km across at its widest point.
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Q1) What is an Asteroid?

Asteroids are small, rocky objects that orbit the sun. Although asteroids orbit the sun like planets, they are much smaller than planets. They are leftovers from the formation of our solar system. From being as small as 10 meters across to as huge as 530 km in diameter, asteroids have varied sizes.

Source: [NASA's Psyche mission fires lasers at Earth from 16 million kilometres away](#)

Source: <https://vajiramandravi.com/current-affairs/psyche/>

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