Psyche

This poster celebrates the spirit and ingenuity of the people who have contributed to this mission’s research, development, and execution. The spacecraft image is made up of geometric forms symbolizing the diverse teams who made this mission possible. Each symbol represents a team in the mission, each with their own unique skill set.

National Aeronautics and Space Administration

Journey to a metal world

www.nasa.gov
psyche.jpl.nasa.gov
Psyche

Deep within the terrestrial planets, including Earth, scientists infer the presence of metallic cores, but these lie far below the planets’ rocky mantles and crusts. The Psyche asteroid is the only known place in our solar system where we can examine directly what may contain metal from the core of a planetesimal—the first building block of a planet. NASA’s Psyche mission will explore the Psyche asteroid, to map and study its properties and provide scientists with new understanding of our own planet’s interior. Insights from the mission will offer scientists a unique window into planet formation and the opportunity to investigate a previously unexplored type of world.

www.nasa.gov
psyche.asu.edu

Journey to a metal world

Journey to a metal world

Spacecraft journey

Orbiting the Psyche asteroid

Symbol key

Payload Engineering

Every NASA science mission is equipped with a suite of high-tech instruments that gather scientific information. The Psyche spacecraft will carry a multispectral imager, a gamma ray and neutron spectrometer, and a magnetometer, and will conduct radio science using its onboard radio antennas. These instruments will observe the asteroid up close to help scientists learn more about the history of the solar system.

Flight Systems

Spacecraft (also known as flight systems to engineers) are the foundation of every mission. A mixed group of engineers designs and plans every aspect of the spacecraft from its intricate design to its fabrication, software, testing, and supporting electronic systems.

Mission Systems

Once launched, it takes a diverse team of people to make a mission possible. Engineers, technical staff, and scientists oversee all aspects of mission operations. This team is responsible for the day-to-day operations and performance of the spacecraft.

Project Management

Management of the design, building, and operations of the spacecraft are key components of mission operations. This team, which includes experienced engineers, business managers, and schedulers, ensures that the mission meets its goals and objectives.

Science Team

The science team is made up of science investigators, collaborators, and students who help define and conduct Psyche’s science investigations. The team will manage and review data provided by the science instruments.

Public Outreach & Student Participation

The public outreach and student teams are responsible for advancing the science public communication and education goals and discoveries. The public outreach team works in collaboration with graphic artists, photographers, illustrators, and other creative professionals. The Psyche mission engages student interns and capstone project students from around the country who support the mission through academic and creative projects.

Terminology

Asteroid

These rocky fragments are leftovers from the beginning of our solar system.

Meteoroid

Much smaller rocks or particles in orbit around the Sun.

Meteor

If a small asteroid or large meteoroid enters the Earth’s atmosphere and vaporizes, it becomes a meteor, which is often called a shooting star.

Meteorite

If a small asteroid or large meteoroid survives its fiery passage through the Earth’s atmosphere and lands on Earth’s surface, it is then called a meteorite.

Comet

Cosmic snowballs of gas and dust that make sweeping orbits around our Sun.