

Mercury Factsheet

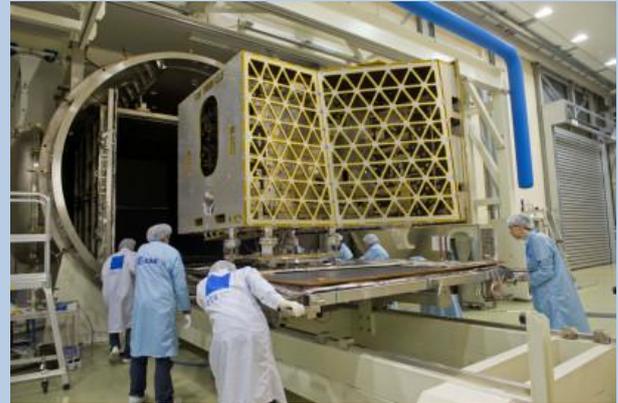


Mercury (Image Credit: NASA/JHU)

Mercury is the first planet from the Sun, and is named after the Roman god Mercury, the messenger to the gods. Mercury is one of the rocky planets, and is made mostly from metals. Its surface is heavily cratered, like the Moon, which means that any geological activity stopped billions of years ago.

As Mercury is so close to the Sun, and has very little atmosphere to retain heat, temperatures on the day side can be up to 426°C , and on the night side down to -170°C . In some areas at the poles, the temperature is always cold, and NASA's MESSENGER mission detected water ice at the poles, in 2012.

Unlike the Earth, the orbit of Mercury is not very circular, and varies from 46 million km to 70 million km from the Sun. This means it has seasons, not because of any tilt of its axis but because of its varying distance from the Sun. It takes 88 Earth days for it to orbit the Sun, or about $1/4$ of an Earth year. Mercury rotates three times for every two orbits.



Moving the BepiColombo Mercury Planetary Orbiter Mechanical and Propulsion Bus (MPB) Proto-Flight Model into the Phenix thermal vacuum facility. BepiColombo is Europe's first mission to Mercury, to be launched in 2015.

Image Credit: ESA

ACTIVITY – Mercury's orbit

Mercury's unusual orbit leads to long periods of extreme heat and cold on the planet. Use the information you have on this sheet to model the orbit and rotation of Mercury. Try using a light bulb for the Sun and something like a coin for Mercury. How long does it take from sunrise to sunset on the planet? (Hint: Half a rotation of the planet is one third of an orbit).

What effect would these long days and nights have on any possible life on the planet?