



1 Mercury is the smallest planet in our solar system and the one closest to the sun; however, it isn't the hottest planet. NASA's *Mariner 10* was the first spacecraft to explore it, from 1973 to 1975. In 2018, an eight-year mission to Mercury called *BepiColombo* was launched by the European Space Agency and the Japan Aerospace Exploration Agency.

2 Mars has been visited by several missions. It has been discovered that it has seasons, weather, polar ice caps and volcanoes—just like Earth does. NASA's robotic mission Mars 2020 aims to look for signs of past life on the planet. It will also give scientists information they will use to prepare to send human explorers to the Red Planet in the 2030s.

3 Venus is the second-closest planet to the sun, but its atmosphere makes it the hottest planet in our solar system. Since the 1960s, it has been visited by more than thirty spacecraft. Japan's *Akatsuki* mission, which was the country's first successful mission to explore another planet, was launched in 2010. Its aims are to study Venus's weather and search for active volcanoes.

4 Neptune is the farthest planet from the sun. In 1612, Galileo observed Neptune with his small telescope, but thought that it was a star. In 1846, scientists predicted the location of the planet with the help of mathematics. *Voyager 2* is the only spacecraft to have ever flown past Neptune, but it provided scientists with lots of information about this planet.

5 Jupiter, the biggest planet in our solar system, has been visited by nine spacecraft. People could observe the planet's Great Red Spot through their telescopes more than a hundred years ago. Now we know that this is actually a gigantic storm. The European Space Agency's *JUICE* mission, planned to arrive at Jupiter in 2029, is going to explore the planet further.

6 Saturn is the second-largest planet in our solar system, and it is famous for its beautiful rings. People have known about it since ancient times because it is visible even without advanced telescopes. The international *Cassini-Huygens* mission—the fourth spacecraft to visit Saturn—studied the planet from 2004 to 2017 and gave scientists information about its rings and moons.

Which planet _____?

- A. was first identified by people thousands of years ago
- B. got its rings because of a volcanic eruption
- C. has been approached by one mission only
- D. shares some similarities with our planet
- E. is characterised by an extreme weather phenomenon
- F. has the highest temperatures
- G. was first explored by a Japanese mission
- H. is being explored by a joint mission of two space agencies

POINTS FOR DISCUSSION

- If you had the opportunity, would you travel to space? Why? / Why not?
- What do you think are some of the problems that humans would face if they travelled to other planets?