## Ngā Kaipānui Pounamu

## COLLECTORS CARD INFO

## Planets



## MERCURY

Position in relation to sun: 1
Type of Planet: Terrestrial (rocky surface)
Mercury is the smallest planet in our solar system and the closest to the sun. It has a radius of 2439.7 km , making it just bigger than Earth's moon. Even though it's the closest planet to the sun, it isn't the hottest - Venus is hotter because of its dense atmosphere. But it is the fastest, travelling around the sun at 47 kilometres per second. It also has the shortest orbit around the sun - a year on Mercury is just 88 days (about 3 Earth months) long.

## VENUS

Position in relation to sun: 2
Type of Planet: Terrestrial (rocky surface)
Venus is Earth's closest neighbor and is similar to Earth in both size and density. However, Venus is different to Earth in many ways. It spins on its axis in the opposite direction to Earth which means the sun rises in the west and sets in the east. It also has a thick atmosphere, which traps heat on the planet making it very hot - in fact, temperatures on Venus are about 475 degrees Celsius!


## EARTH

## Position in relation to sun: 3

## Type of Planet: Terrestrial (rocky surface)

Earth is the only planet we know that has life on it. It's also the only planet that has water - in fact, its surface is mainly water, which covers around $71 \%$ of the Earth. Although it's only the fifth largest planet in the solar system, it's the largest of the four planets closest to the sun.

## THE MOON

Earth's moon is the fifth largest moon in the solar system. It's also the only place outside of Earth that humans have visited. Scientists think that the moon was formed when an astral body the size of Mars crashed into the Earth. At first, the moon was only about 20,000-30,000 kilometres away from the Earth, ten times closer than it is now, and it is still moving away from the Earth at a rate of 3.78 cm a year.


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## MARS

Position in relation to sun: 4
Type of Planet: Terrestrial (rocky surface)
Mars is called the red planet because it's covered in iron oxide which is a reddish colour. Mars is similar to Earth in many ways - it has mountains and valleys, extinct volcanoes and polar ice caps. Scientists think that Mars once even had rivers and oceans like Earth and could have supported life. There have been a lot of missions to explore Mars, and it's the only planet in the solar system where rovers have been on the planet surface.

## JUPITER

Position in relation to sun: 5
Type of Planet: Gas giant
Jupiter is by far the largest planet in the solar system, almost twice as large as all the other planets combined. Its distinctive colourful, swirly clouds are made up of different gases such as ammonia ice, ammonium hydrosulfide crystals and water ice and vapour. Jupiter is famous for its big red spot, which is in fact a gigantic storm more than $16,000 \mathrm{~km}$ wide that has been raging for hundreds of years. It also has 95 moons, including Ganymede, the largest moon in our solar system.


## SATURN

Position in relation to sun: 6 Type of Planet: Gas giant

Saturn is the second-largest planet in the solar system and is distinguished by its beautiful rings made of ice and rock. Like Jupiter, it has many moons - 83 in all. Although the conditions on Saturn are not suitable for life, it is thought that some of its moons like Enceladus and Titan, which have internal oceans, may be able to support living organisms.

## URANUS

Position in relation to sun: 7
Type of Planet: Ice giant
Uranus is unique amongst the planets in that it rotates at nearly a 90-degree angle, which makes it look like it's spinning on its side. It's an ice giant, mostly made up of a hot, dense mixture of "icy" materials - water, ammonia and methane. It has 13 rings around it, with the outer rings being brightly coloured and the inner rings dark and narrow.


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## NEPTUNE

Position in relation to sun: 8
Type of Planet: ice giant
Neptune is the major planet furthest away from the sun. It is cold and very windy there, averaging about -210 degrees Celsius. A day on Neptune is about 16 hours long, but a year on Neptune is around the same as 165 Earth years! Neptune is the only planet in our solar system that isn't visible to the naked eye.

## PLUTO

## Position in relation to sun: 9

Type of Planet: Dwarf planet
Pluto used to be considered a planet until 2006, but now it's classified as a dwarf planet. In fact, Pluto is actually smaller than the Earth's moon! Pluto's orbit is elliptical, which means it's sometimes closer to the sun than Neptune. Pluto has blue skies, five moons and mountains with snow - but the snow is red!


