



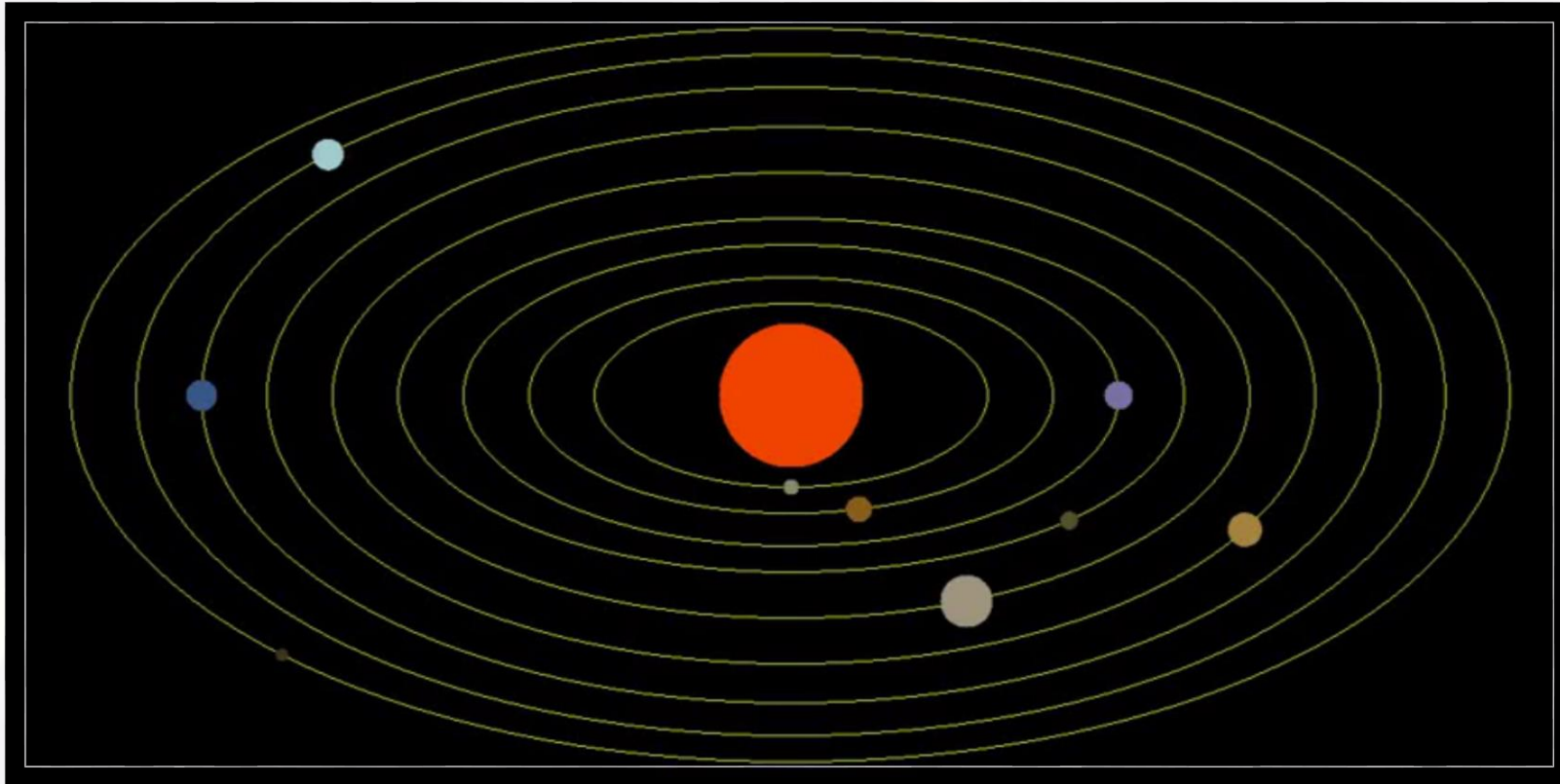
Outer Space: The Planets

W.A.L.T: understand what
the planets in our solar
system are like

Do you know any facts
about any of the
planets in our solar
system already?
Think, Pair, Share.



Our solar system has some pretty unusual planets in it. Altogether, there are 8 planets in our solar system. There used to be 9 planets but poor Pluto got kicked out of the club for being too small. All of these planets orbit the sun.



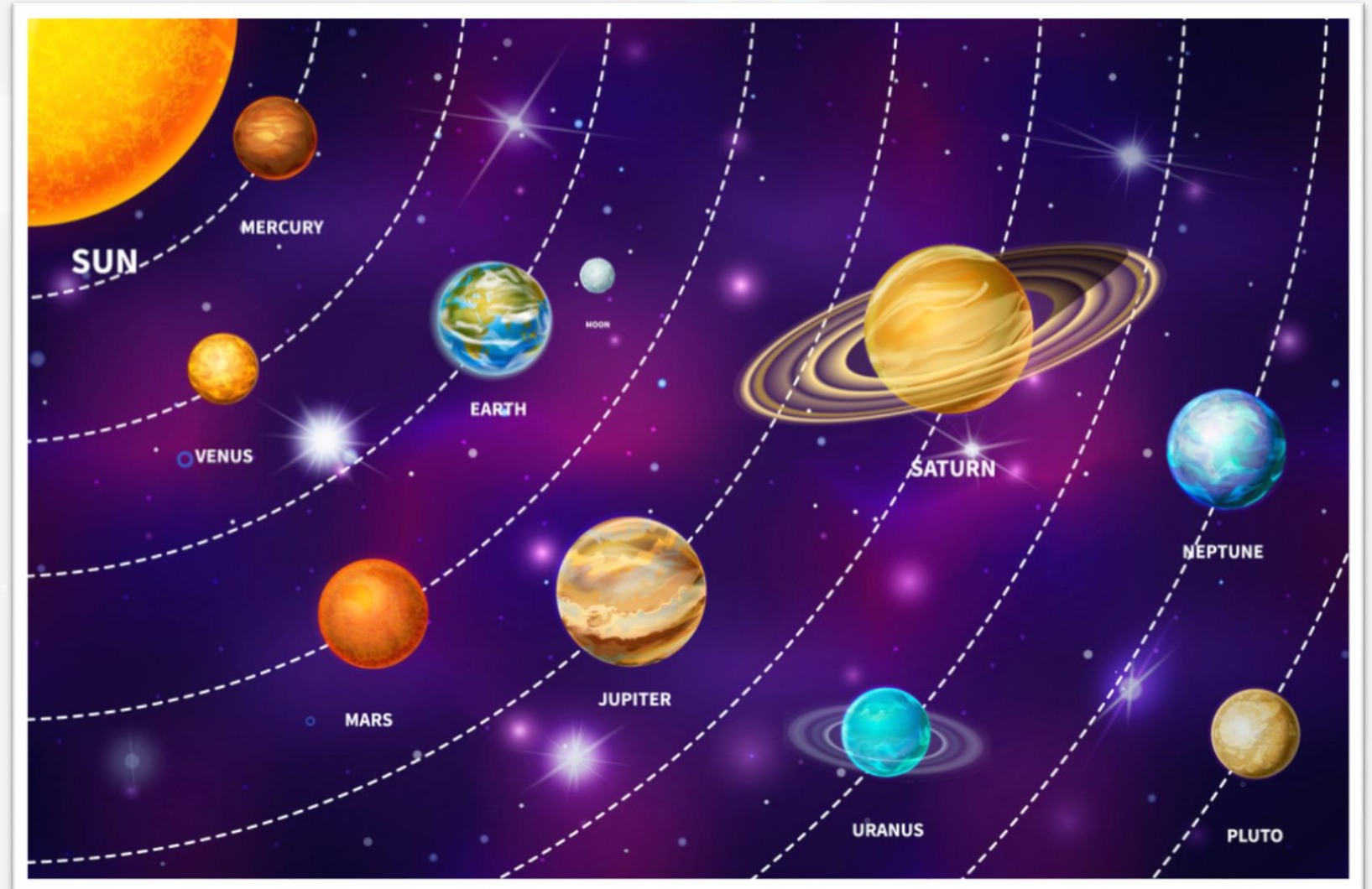
Can you name all 8 planets
in order from closest to
the Sun to furthest away?

Think, Pair, Share!



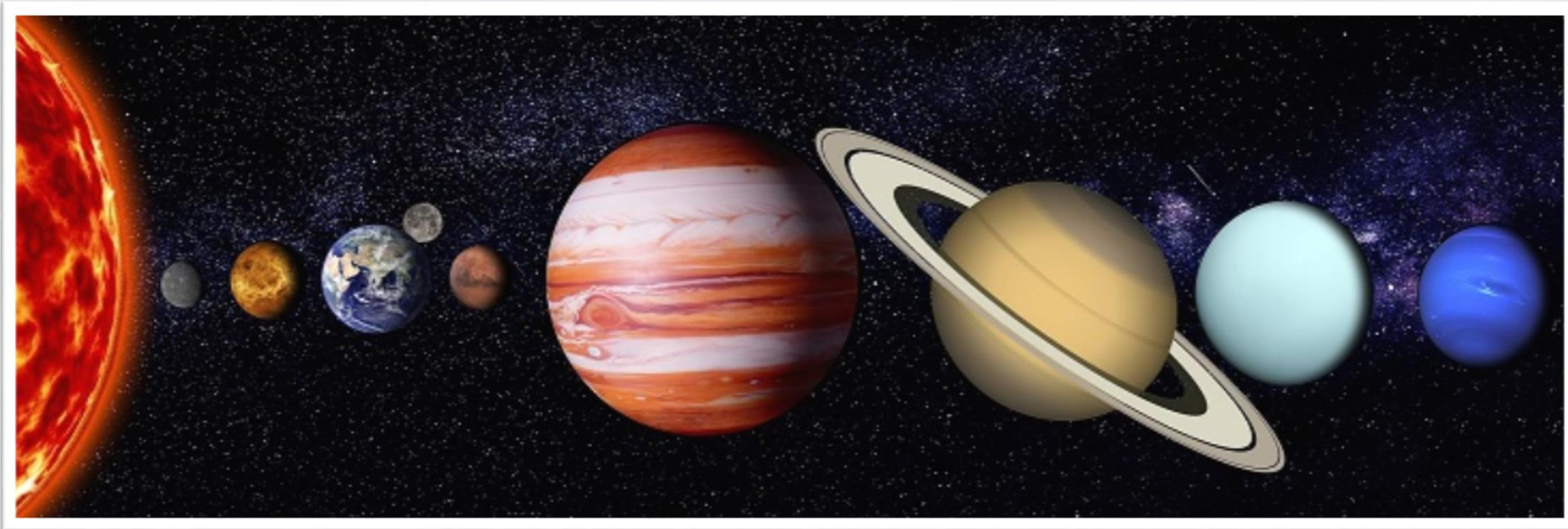
In order from closest to furthest we have:

Mercury
Venus
Earth
Mars
Jupiter
Saturn
Uranus
Neptune



A good way to remember these are to make up a mnemonic like this one:

My **V**ery **E**ldery **M**other **J**ust **S**erved **U**s **N**oodles

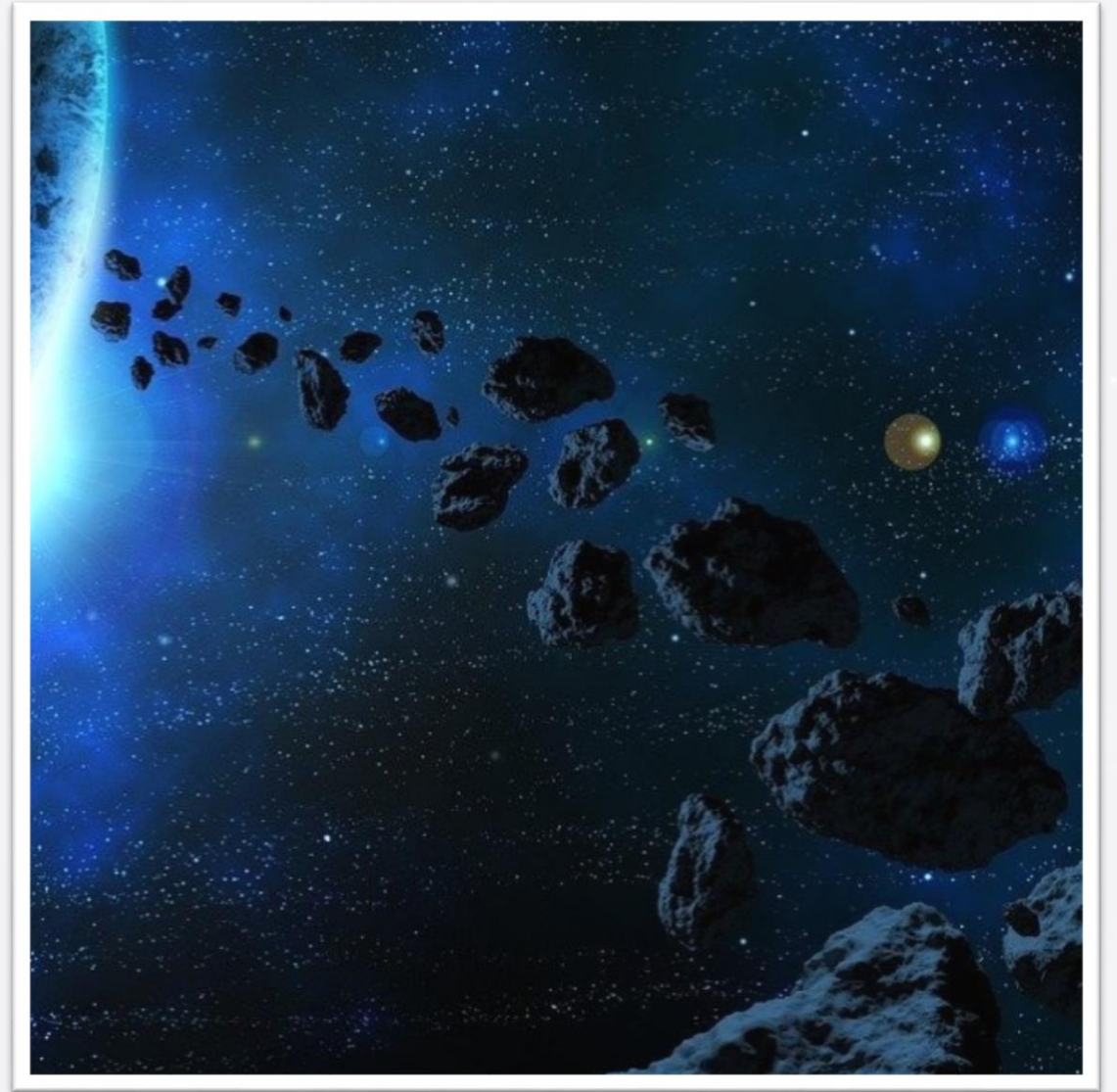


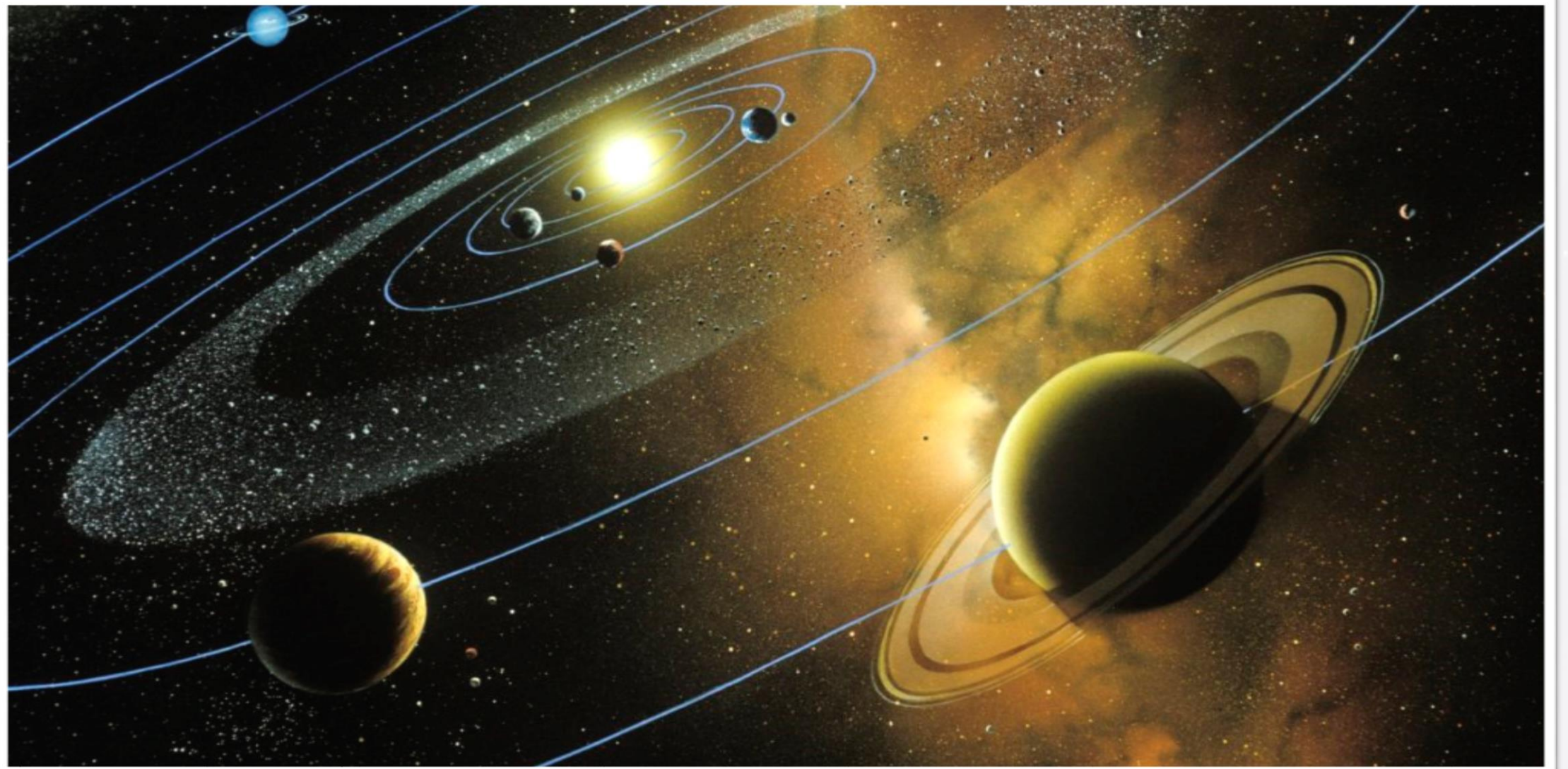
Can you come up with your
own mnemonic to
remember the planets?

Think, Pair, Share!



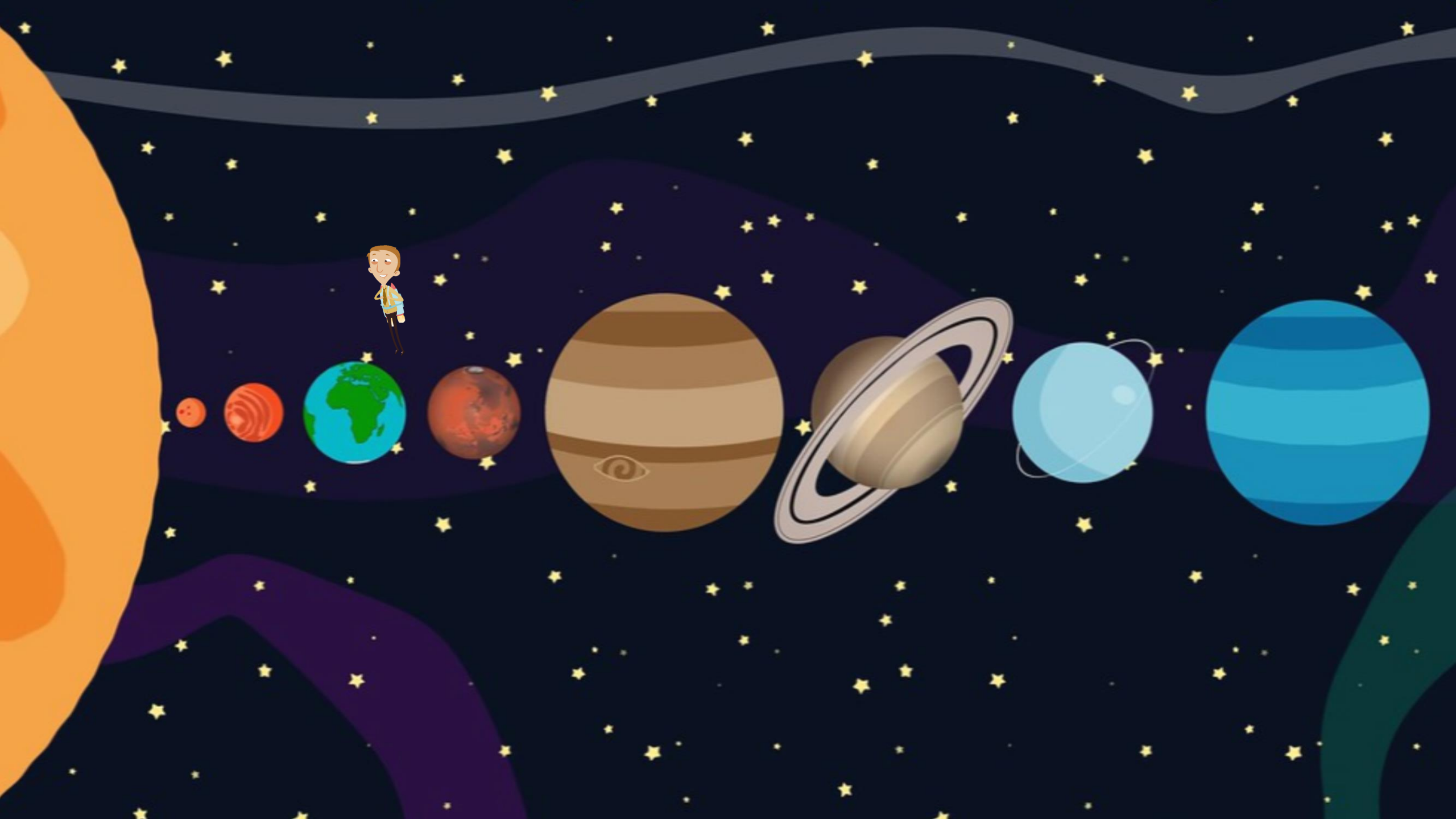
The planets in our solar system are divided into two main groups. The **inner planets** are Mercury, Venus, Earth and Mars. The **outer planets** are Jupiter, Saturn, Uranus and Neptune. These two groups are separated by a big **asteroid belt**.





Let's take a whistle-stop tour around our planet's neighbourhood. We're going to visit some of the most interesting planets in our solar system.







Where are we...

- I am smaller than my neighbour planet





Where are we...

- I am smaller than my neighbour planet
- I am known as the 'red planet'



Where are we...

- I am smaller than my neighbour planet
- I am known as the 'red planet'
- Robots have visited me already



Mars

Where are we...

- I am smaller than my neighbour planet
- I am known as the 'red planet'
- Robots have visited me already

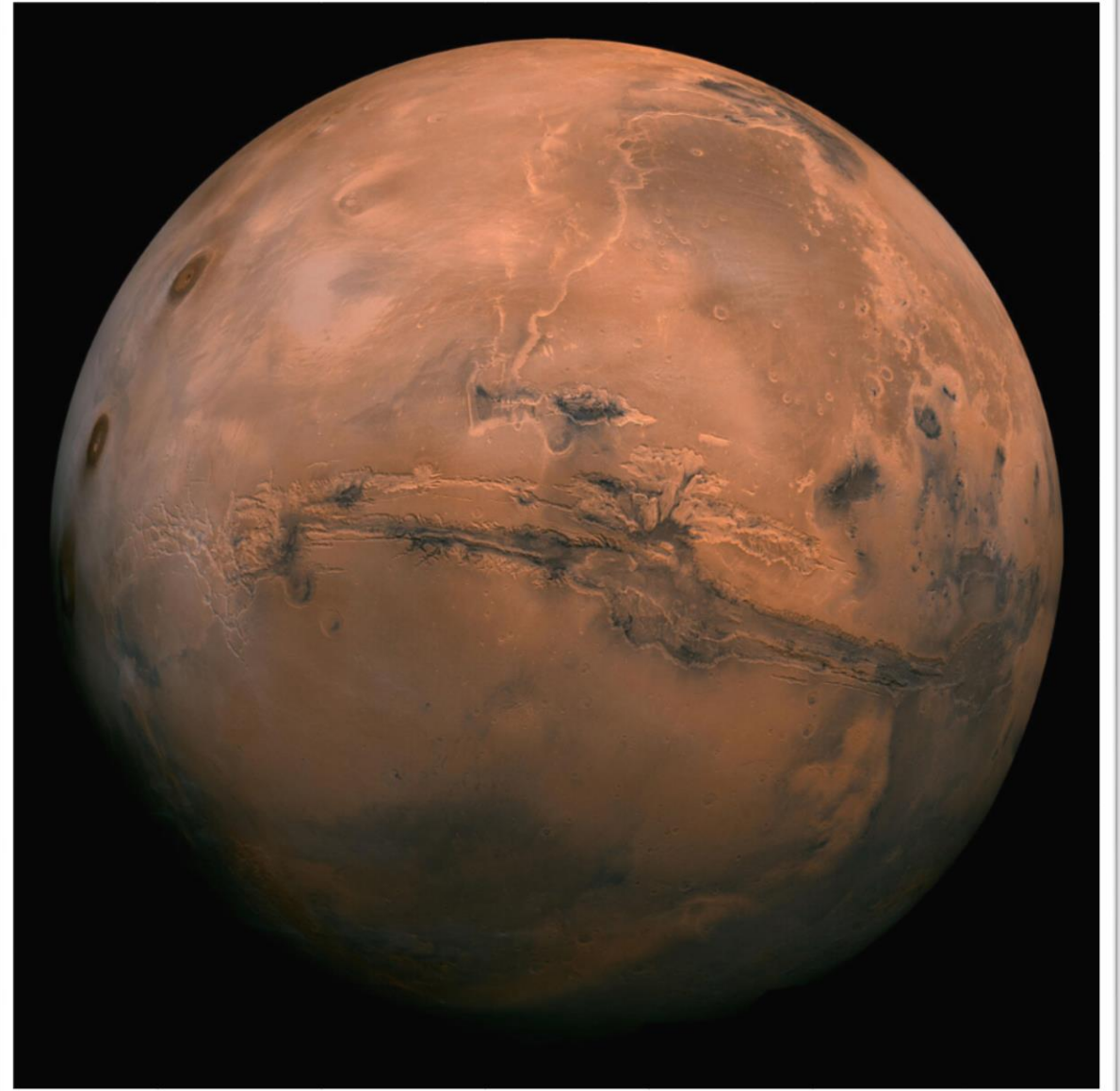
Mars Quick Facts:

Moons: 2

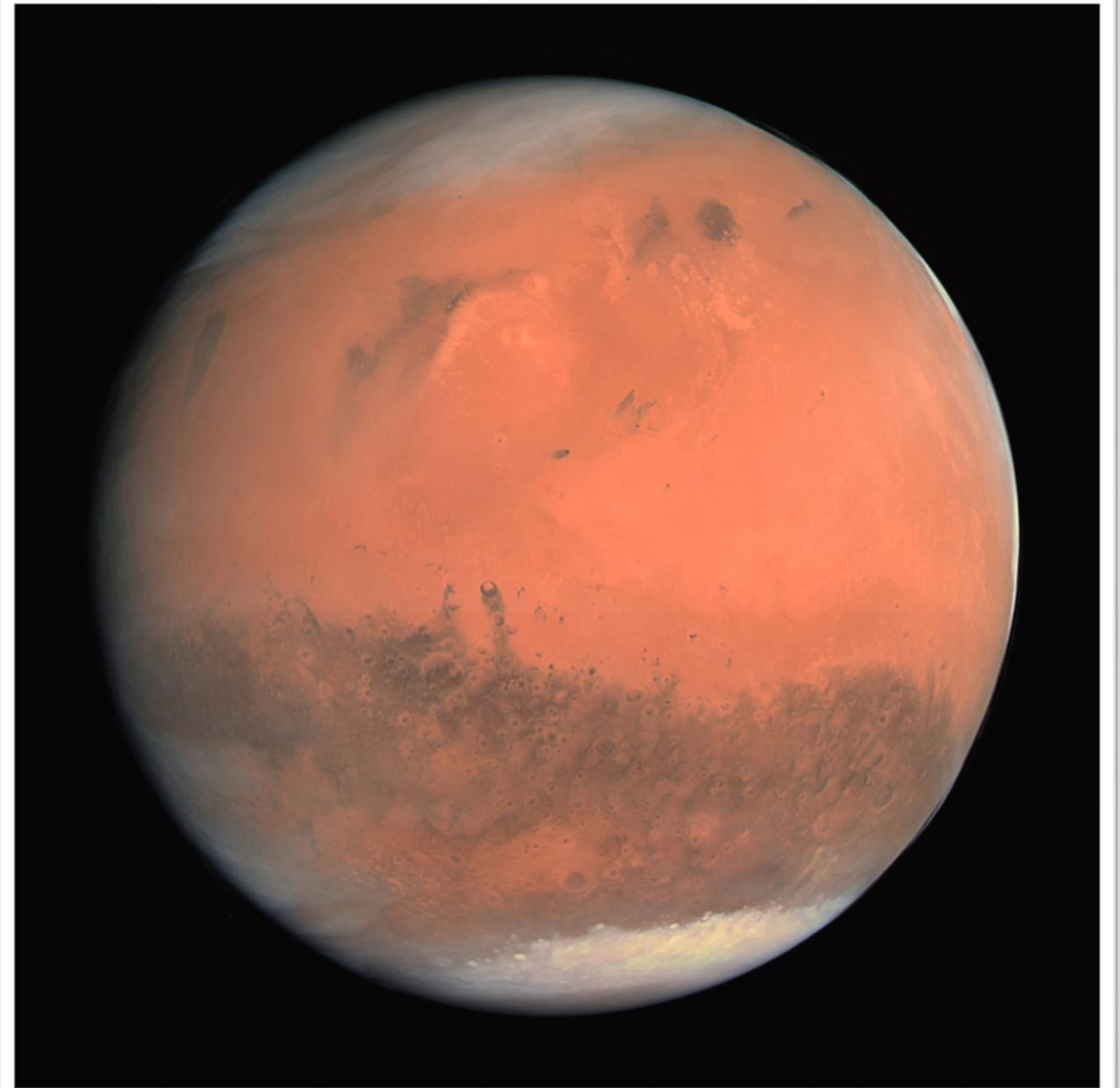
Length of a day: 24hrs and 37 minutes.

Length of a year: 687 days

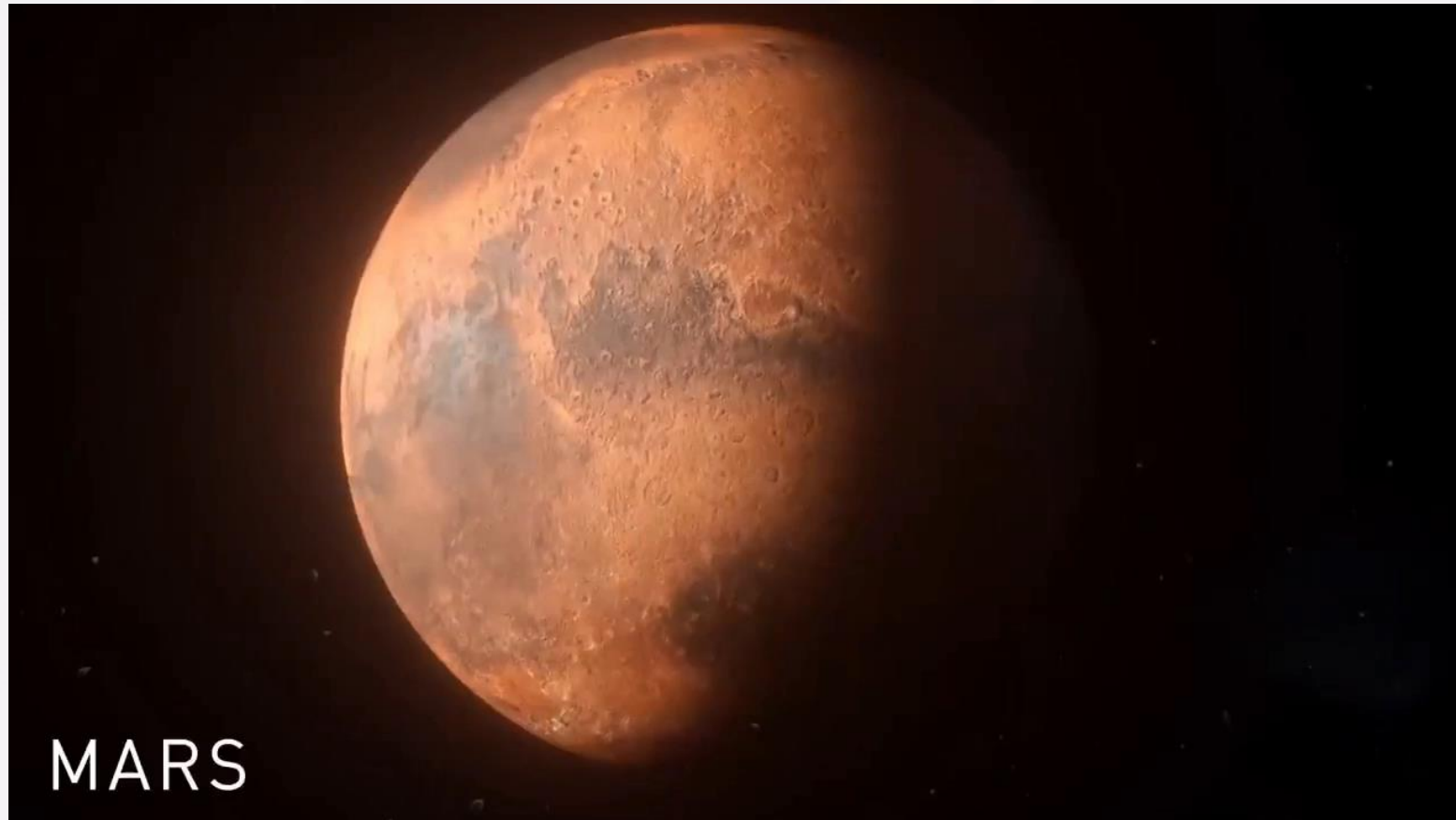
Temperature: between -140 and 20 degrees.



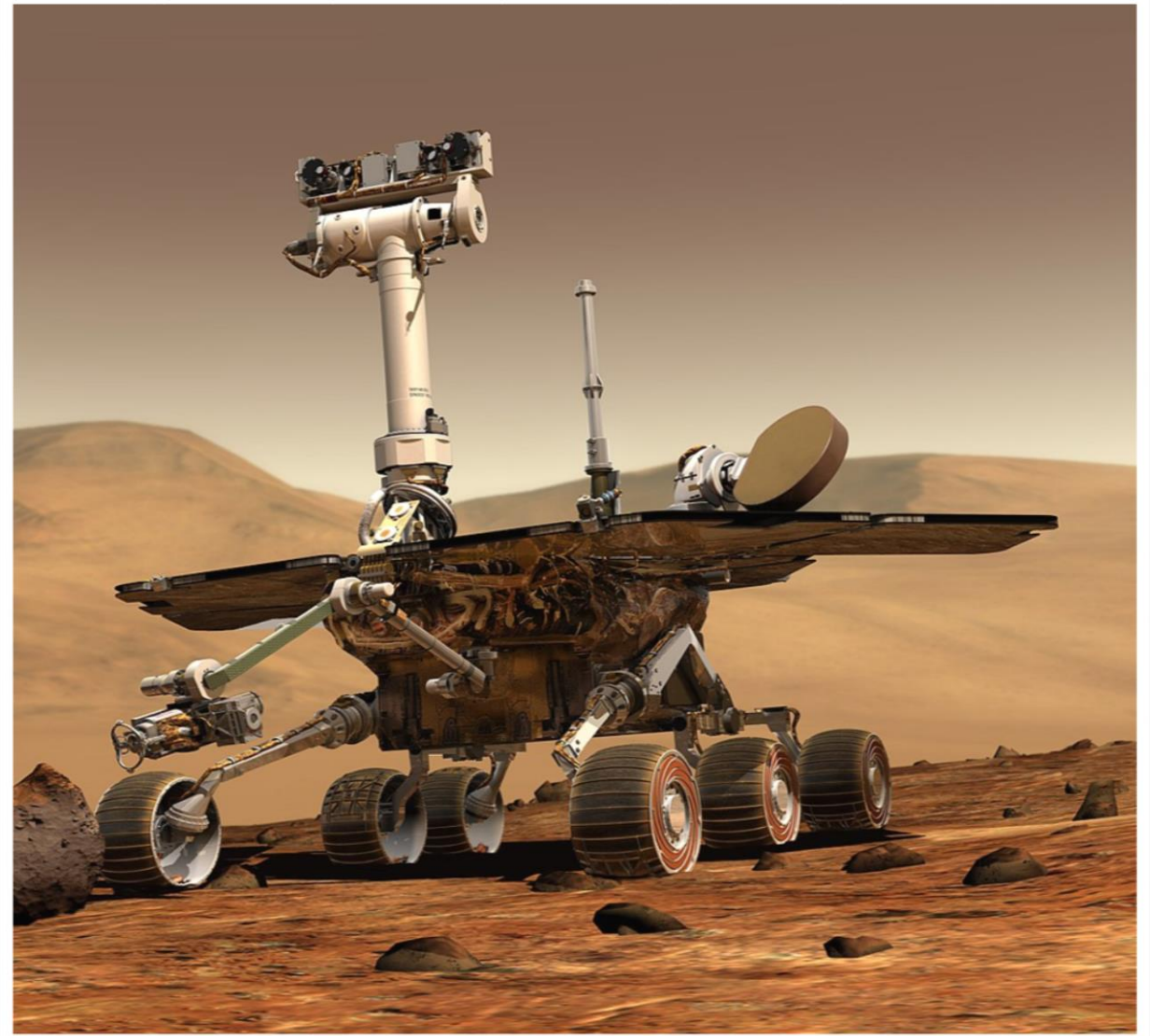
Welcome to Mars, the 'Red Planet'. It's called the red planet because of its rusty coloured rock surface. Mars is the second smallest planet, about half the size of Earth and it is the fourth furthest away from the sun!



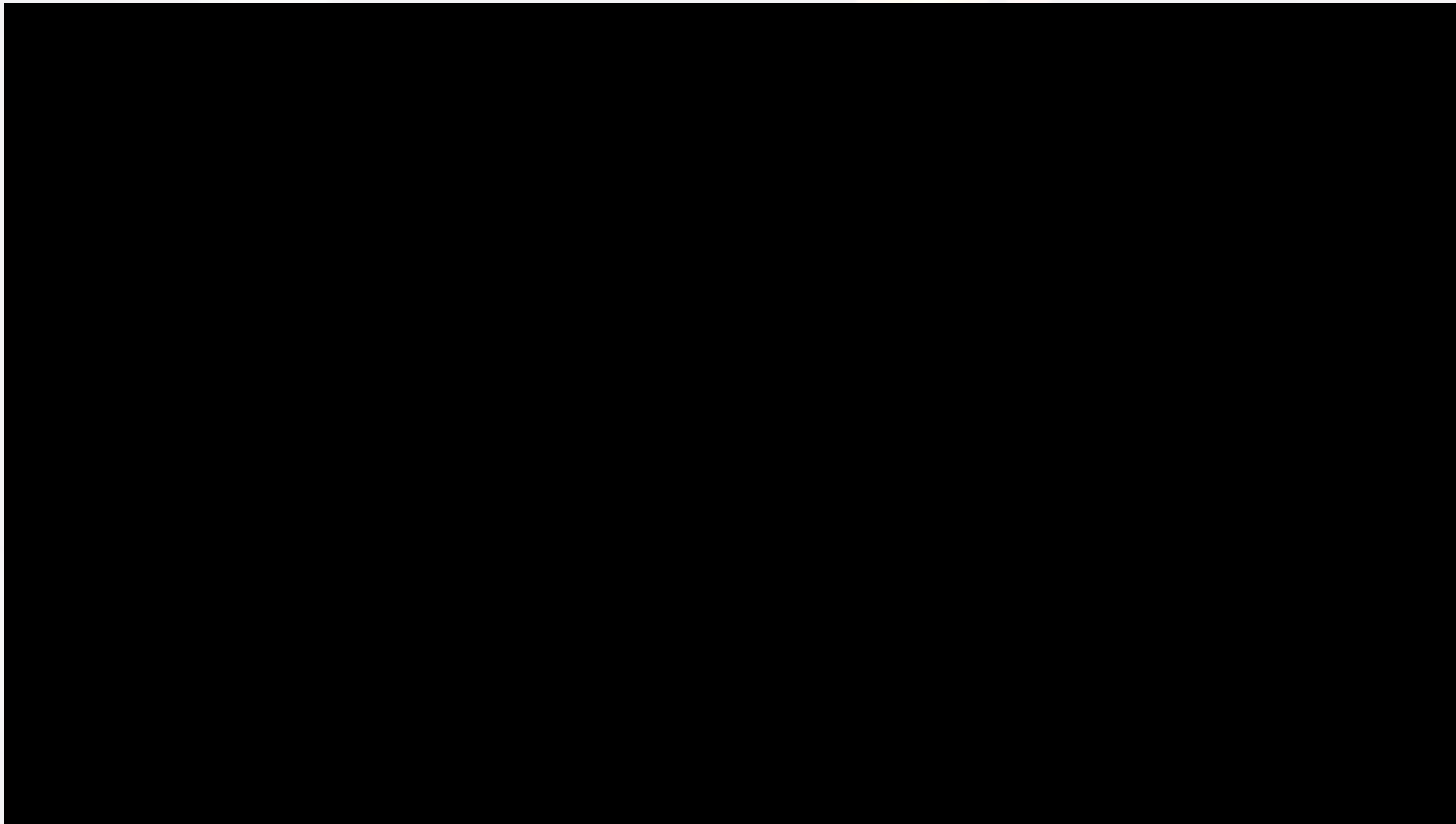
If you were on Mars, you would be able to jump 3 times as high as on Earth. This is because the gravity on Mars is much weaker!



Human's have not been to Mars yet, but scientists have sent robots there to research the planet. The first robot, the Viking Landers, landed in 1976. This year the newest robot, called Perseverance landed on Mars. Her job is to find evidence of ancient life on Mars!



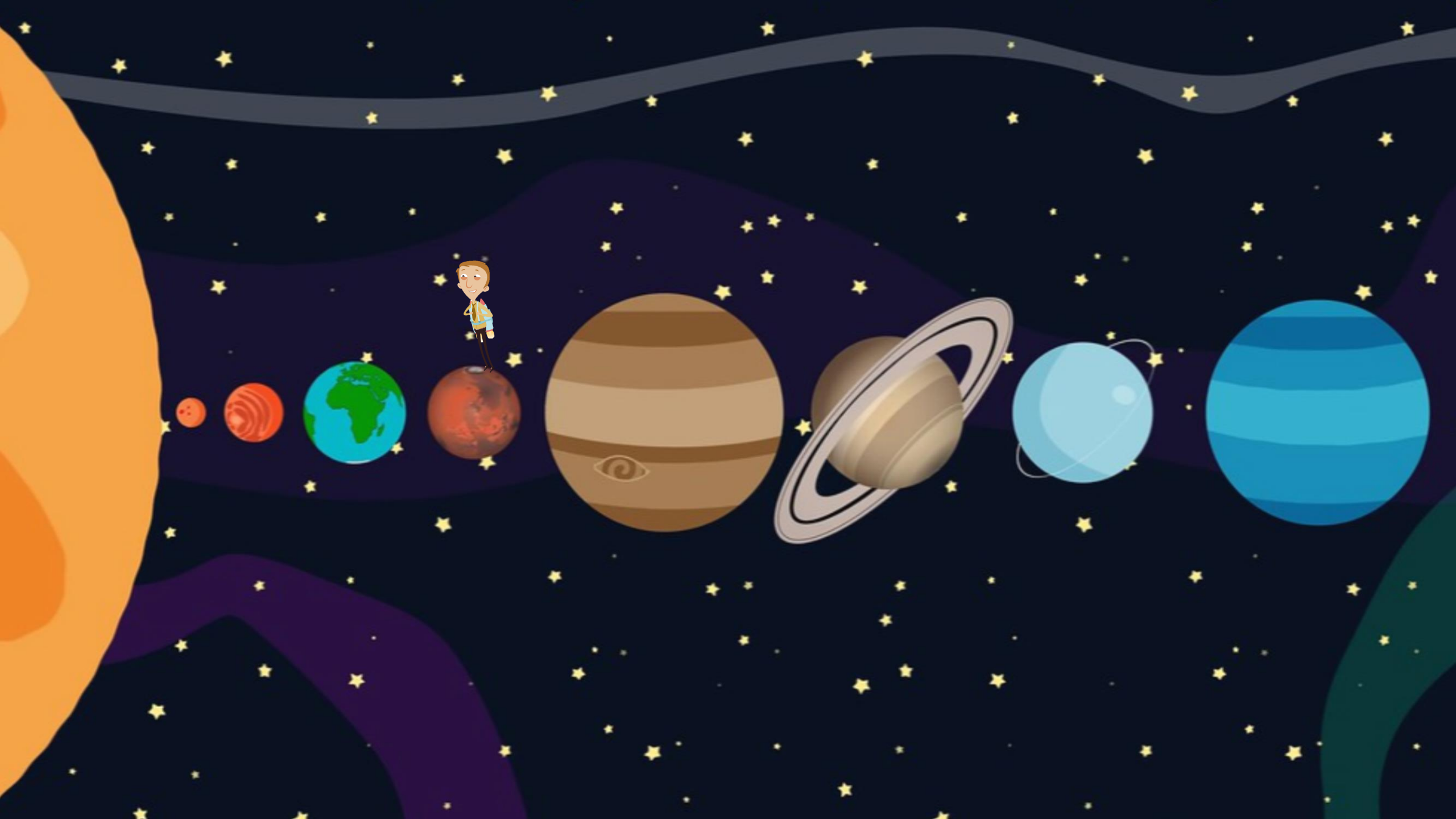
On its latest mission a few days ago, the Perseverance launched her on-board 'helicopter' to take the first ever pictures of Mars from the sky!



What do you think would happen to you if you fell into Mars?

Think, Pair Share!





Where are we...

- The weather here is very extreme



Where are we...

- The weather here is very extreme
- I am one of the outer planets



Where are we...

- The weather here is very extreme
- I am one of the outer planets
- I am blue in colour





Where are we...

- The weather here is very extreme
- I am one of the outer planets
- I am blue in colour

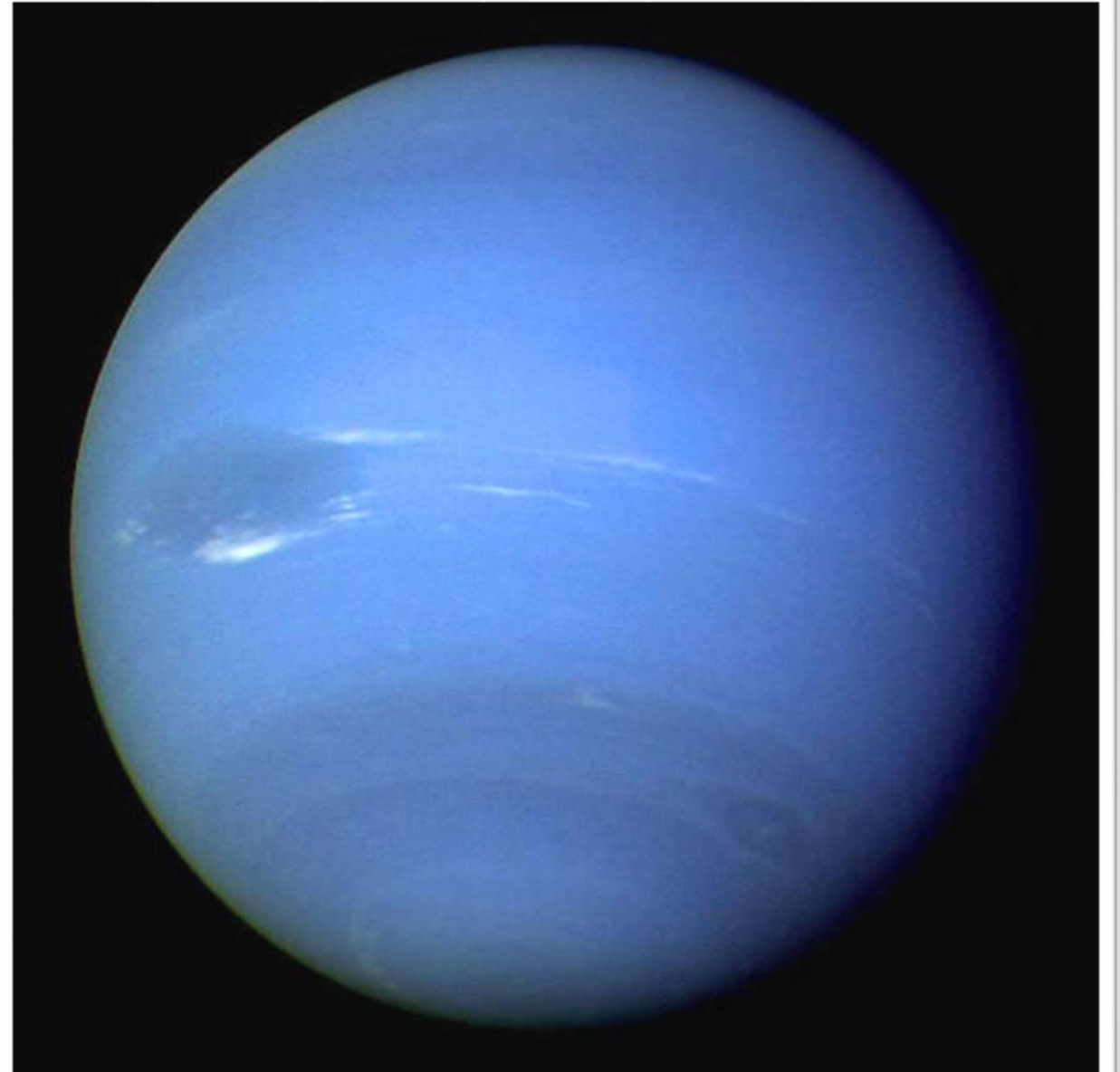
Neptune Quick Facts:

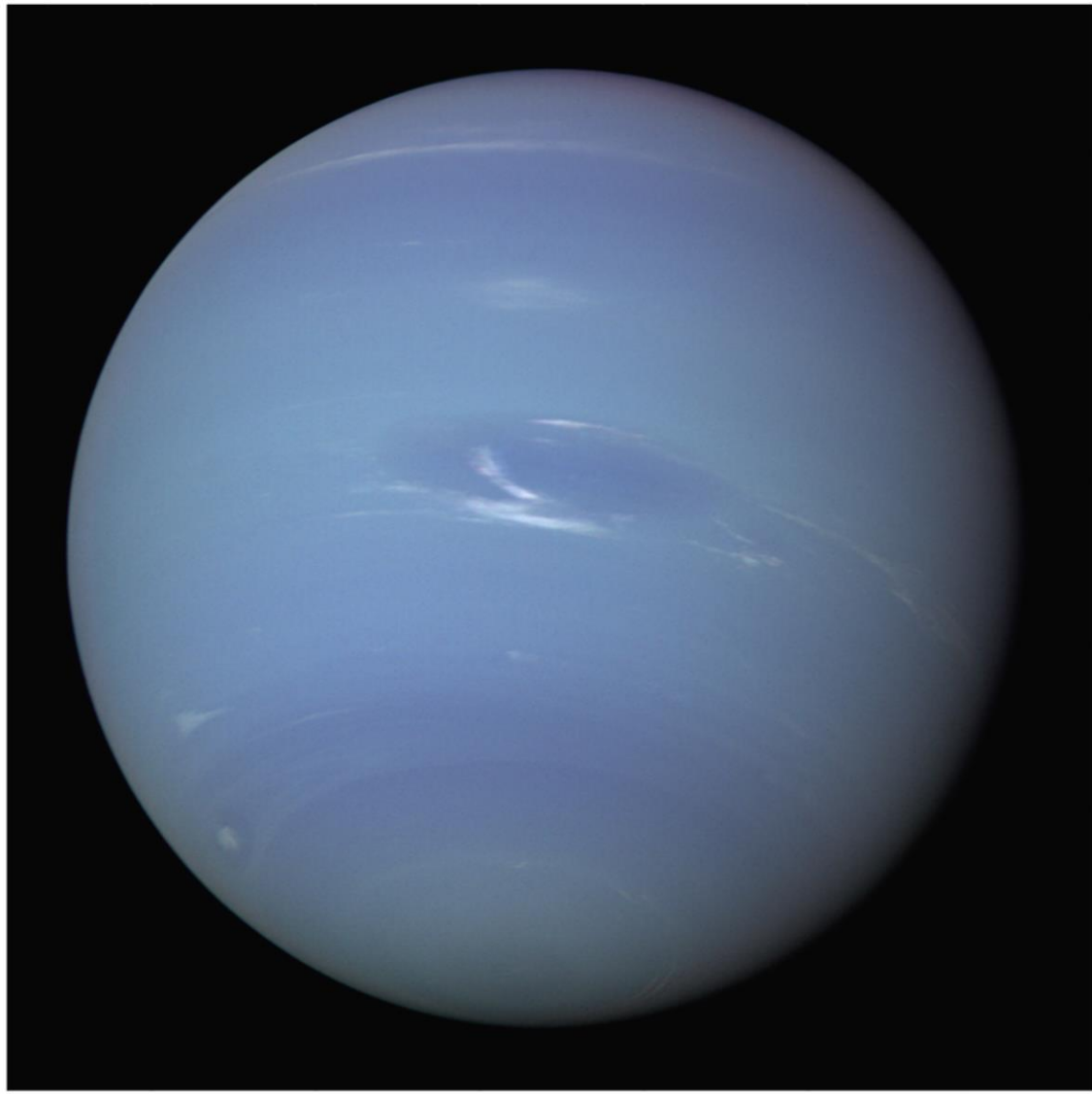
Moons: 14

Length of a day: 16 hours
and 6 minutes

Length of a year: 165
years

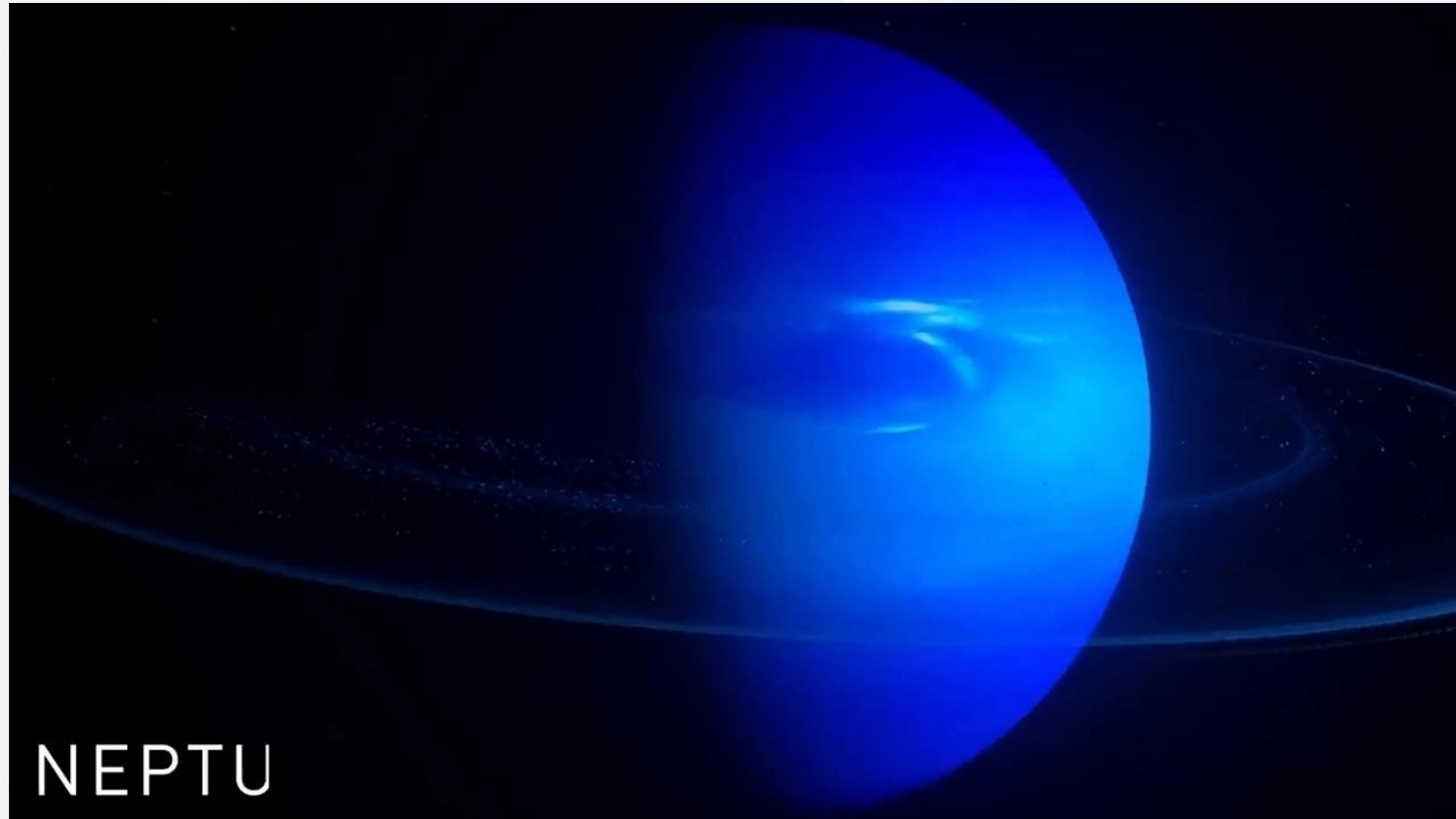
Temperature: around -210
degrees.





Welcome to Neptune, the 'Blue Planet'. It's called the blue planet because of the blue gas that gives it its colour. Neptune is the furthest planet from the Sun. It is about 1 and a half times the size of the Earth but boy is it different!

If you were on Neptune, you would only be able jump about 30cm off the ground. That's as big as a ruler! This is because the gravity on Neptune is much stronger than on Earth!



NEPTU

Neptune has the strongest winds in the solar system. The strongest winds on Earth are Category 5 winds. You can see what they do to a person in the video.

However, the winds of Neptune are FIVE times stronger! So you can imagine what would happen if you landed on Neptune



There is one other thing you should know about Neptune. One of the gases that makes this planet is called methane. It helps give Neptune its blue colour. However, there is a bit of a problem with methane. We have it here on earth too...

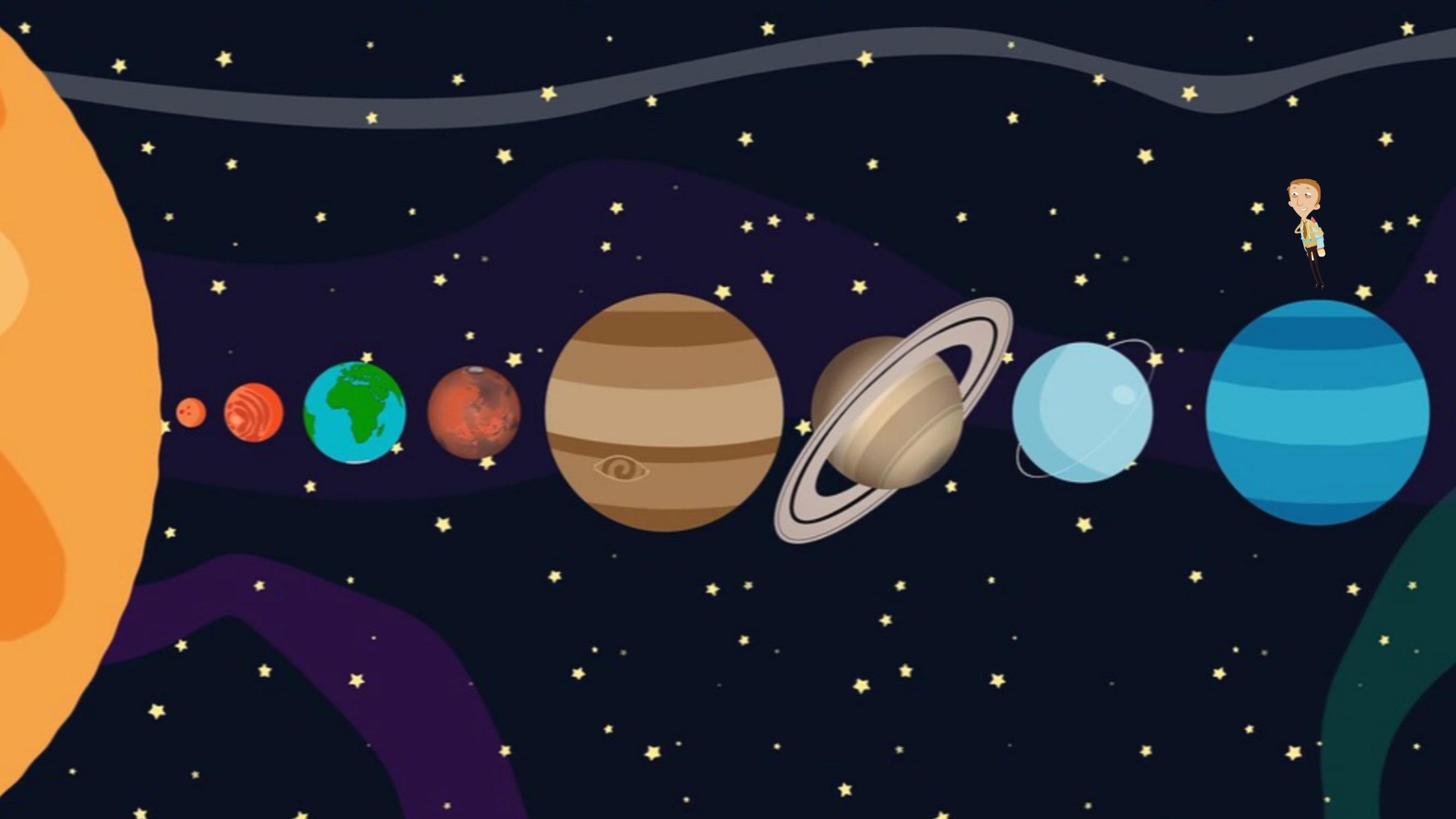
Do you know where?



When do you think would
happen if you fell into
Neptune?

Think, Pair Share!





Where are we...

- I am named after the Roman God of farming



Where are we...

- I am named after the Roman God of farming
- I am one of the largest planets



Where are we...



- I am named after the Roman God of farming
- I am one of the largest planets
- I have seven flat rings around me



Saturn

Where are we...

- I am named after the Roman God of farming
- I am one of the largest planets
- I have seven flat rings around me

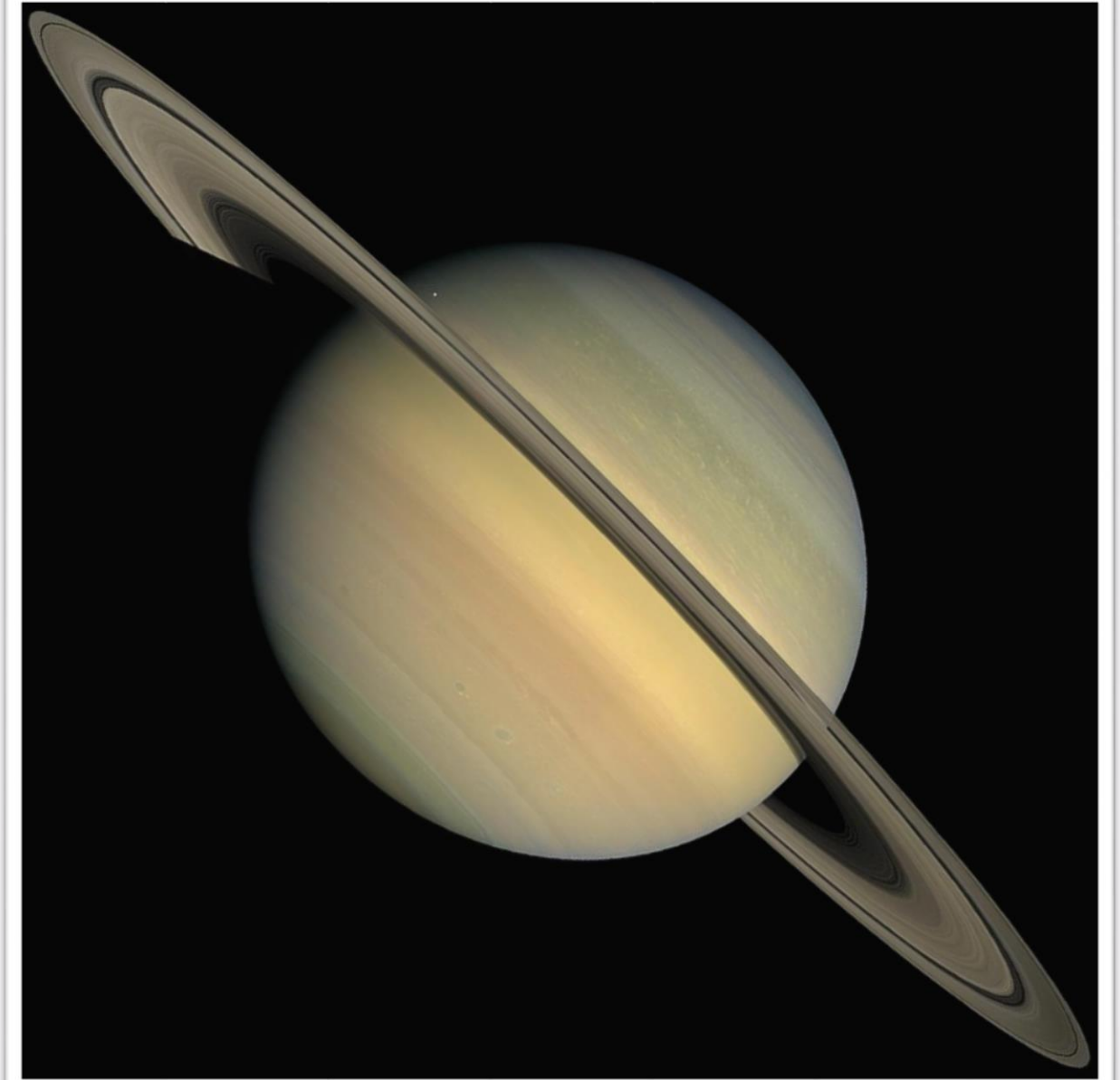
Saturn Quick Facts:

Moons: 82

Length of a day: 10 hours
and 42 minutes

Length of a year: 29 years

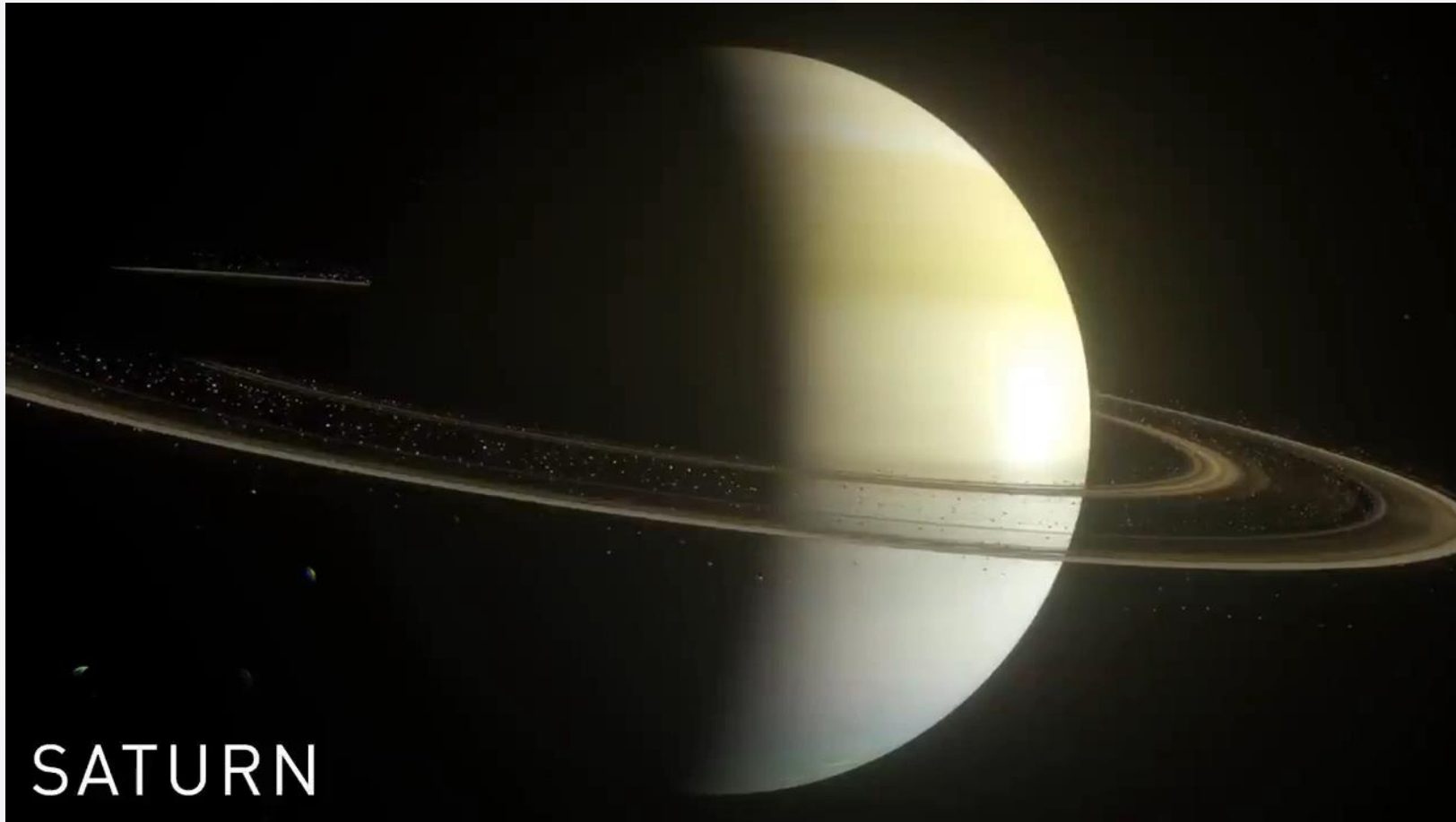
Temperature: between -
185 and -122 degrees



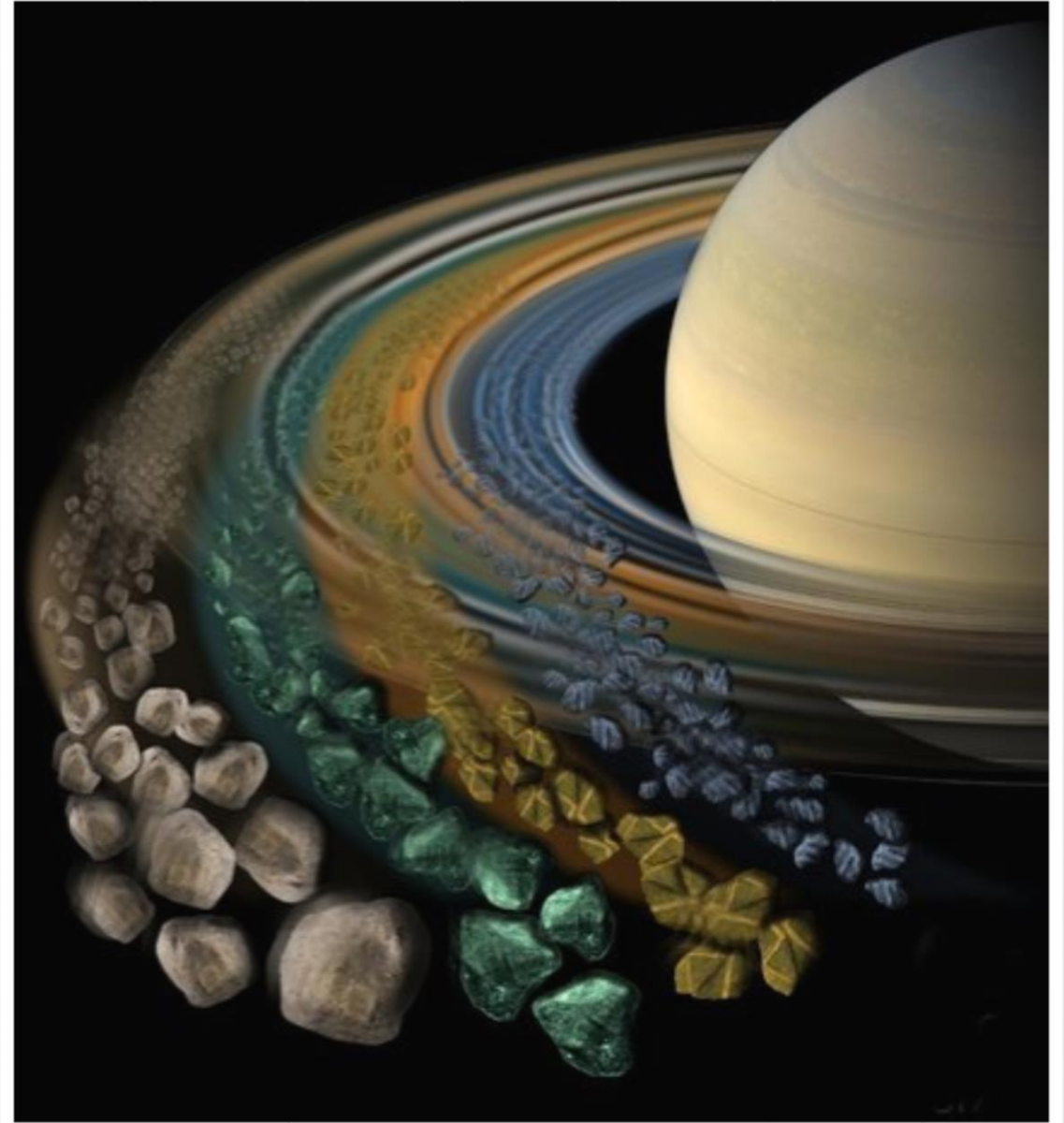


Welcome to Saturn, the 'Ringed Planet'. It's called the ringed planet because of its seven large rings. It is the second largest planet, nearly 83 times bigger than Earth! It is the sixth planet from the Sun. It is a gas giant, which means that it is completely made from gas!

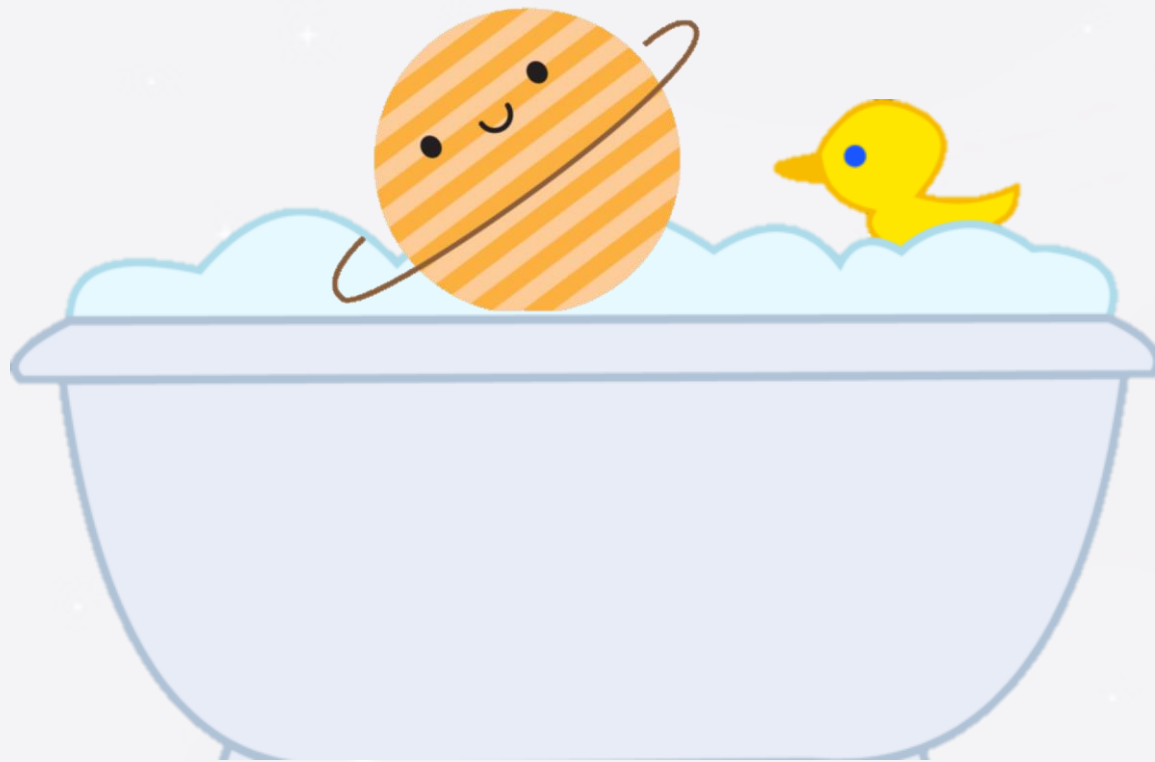
If you were on Saturn, you would only be able jump about 30cm off the ground. The problem is... There is no ground to jump from!



Saturn's rings are really quite amazing. These rings stretch as far as the Earth to the moon! The rings are made up of ice with some dust and rocks mixed in too. There are billions of these pieces floating around Saturn. Some are as small as a piece of dust, others are as big as a bus!



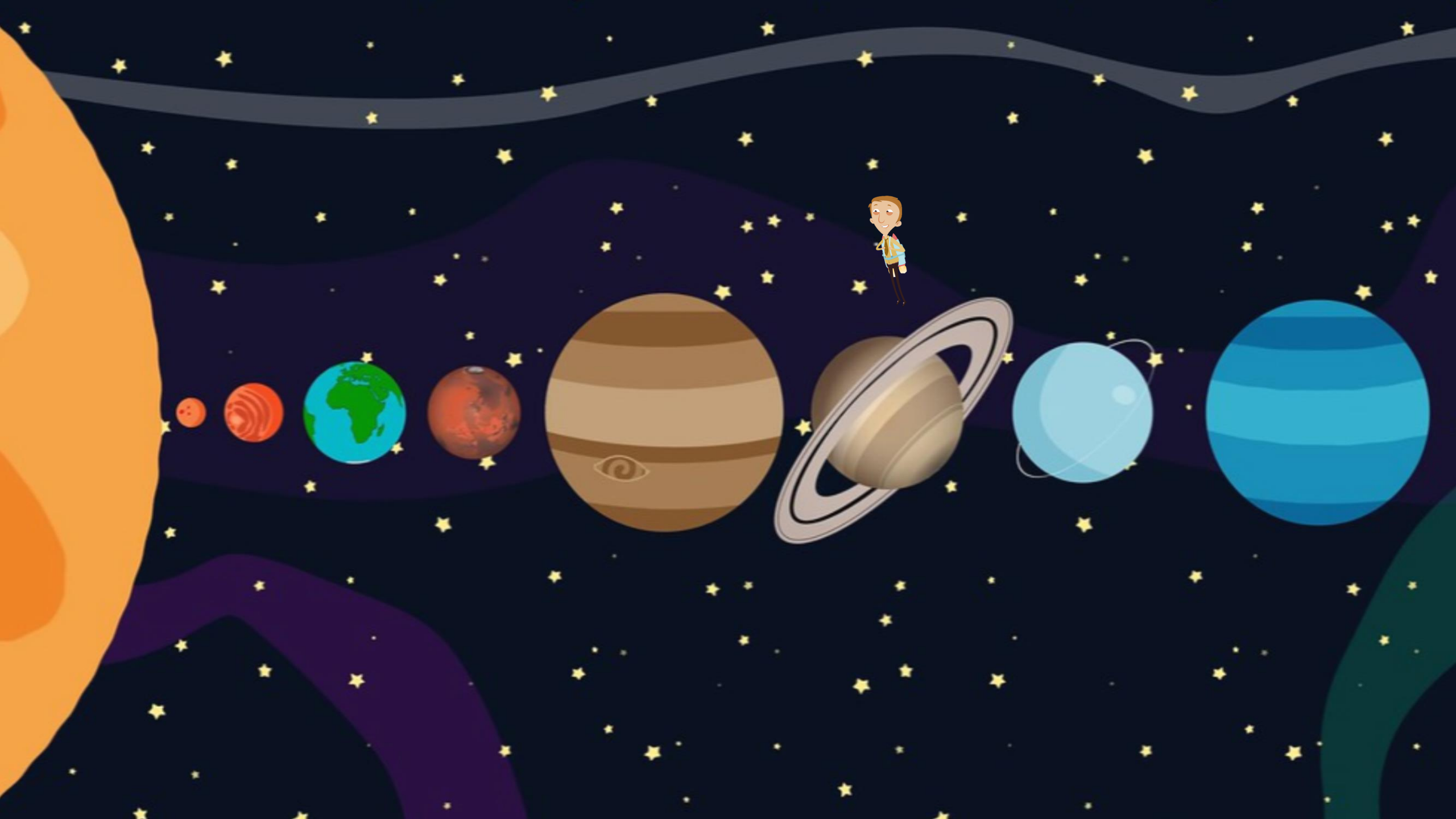
There is one really weird thing about this planet made of gas. If we had the most enormous bath tub in the universe and we decided to drop Saturn into it, it would actually float!



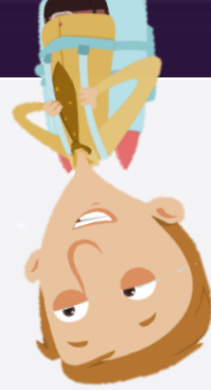
When do you think would
happen if you fell into
Neptune?

Think, Pair Share!





Where are we...



- I am named after the Roman King God.



Where are we...



- I am named after the Roman King God.
- I am the largest planet.

Where are we...



- I am named after the Roman King God.
- I am the largest planet.
- There is a storm on me that has been going for years



Where are we...

- I am named after the Roman King God.
- I am the largest planet.
- There is a storm on me that has been going for years

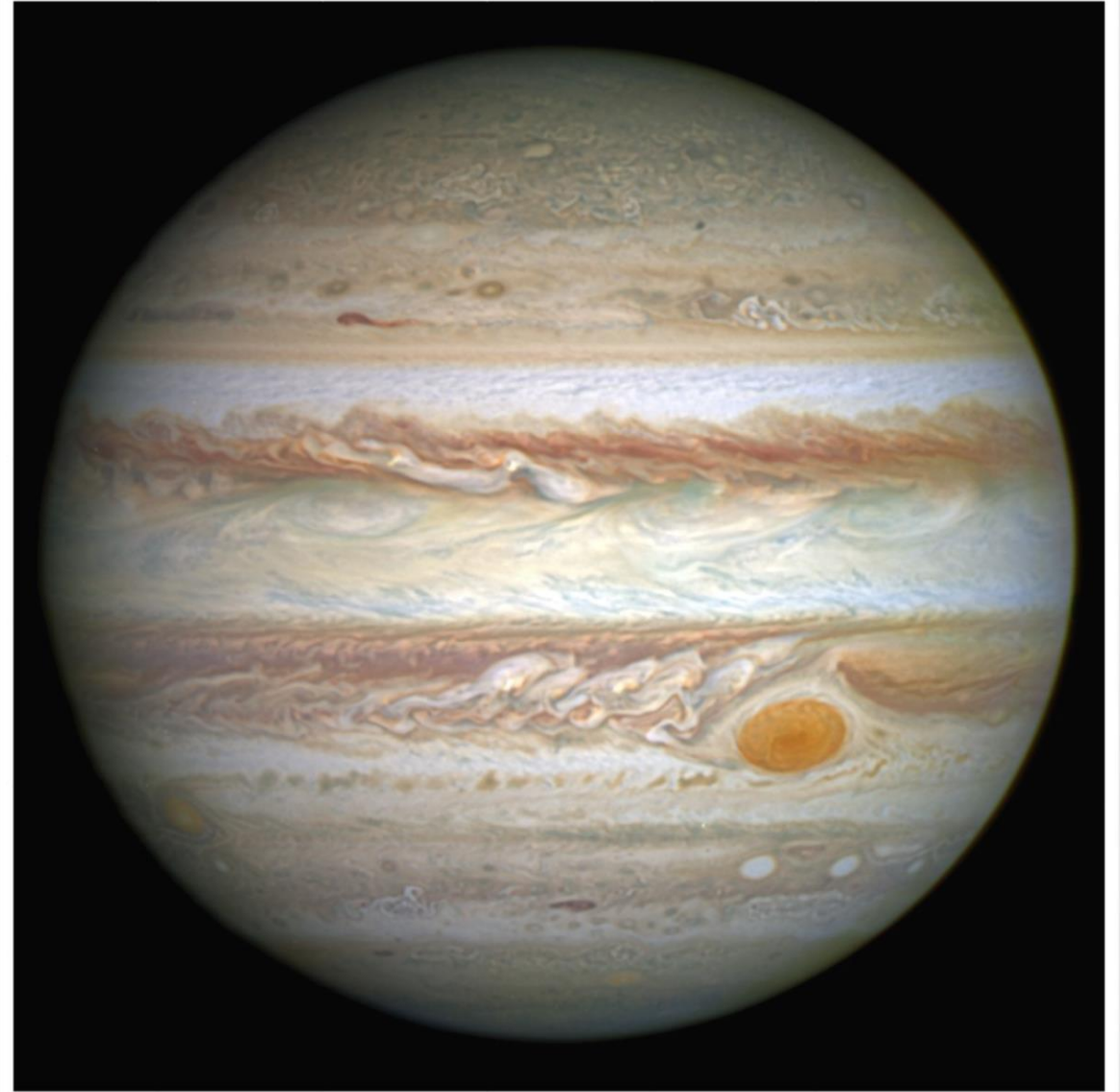
Jupiter Quick Facts:

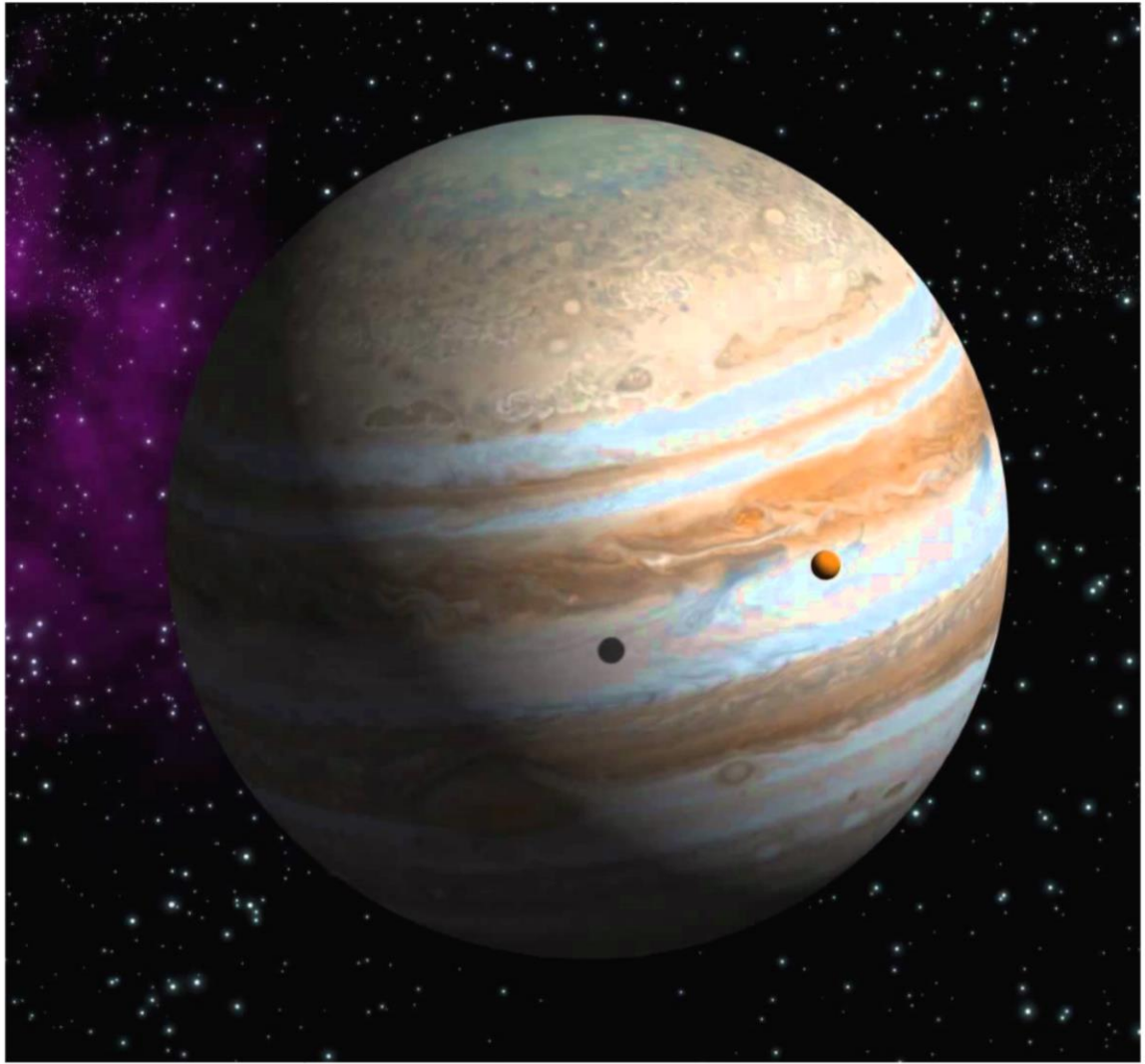
Moons: 79

Length of a day: 9 hours
and 56 minutes

Length of a year: 12 years

Temperature: around -110
degrees





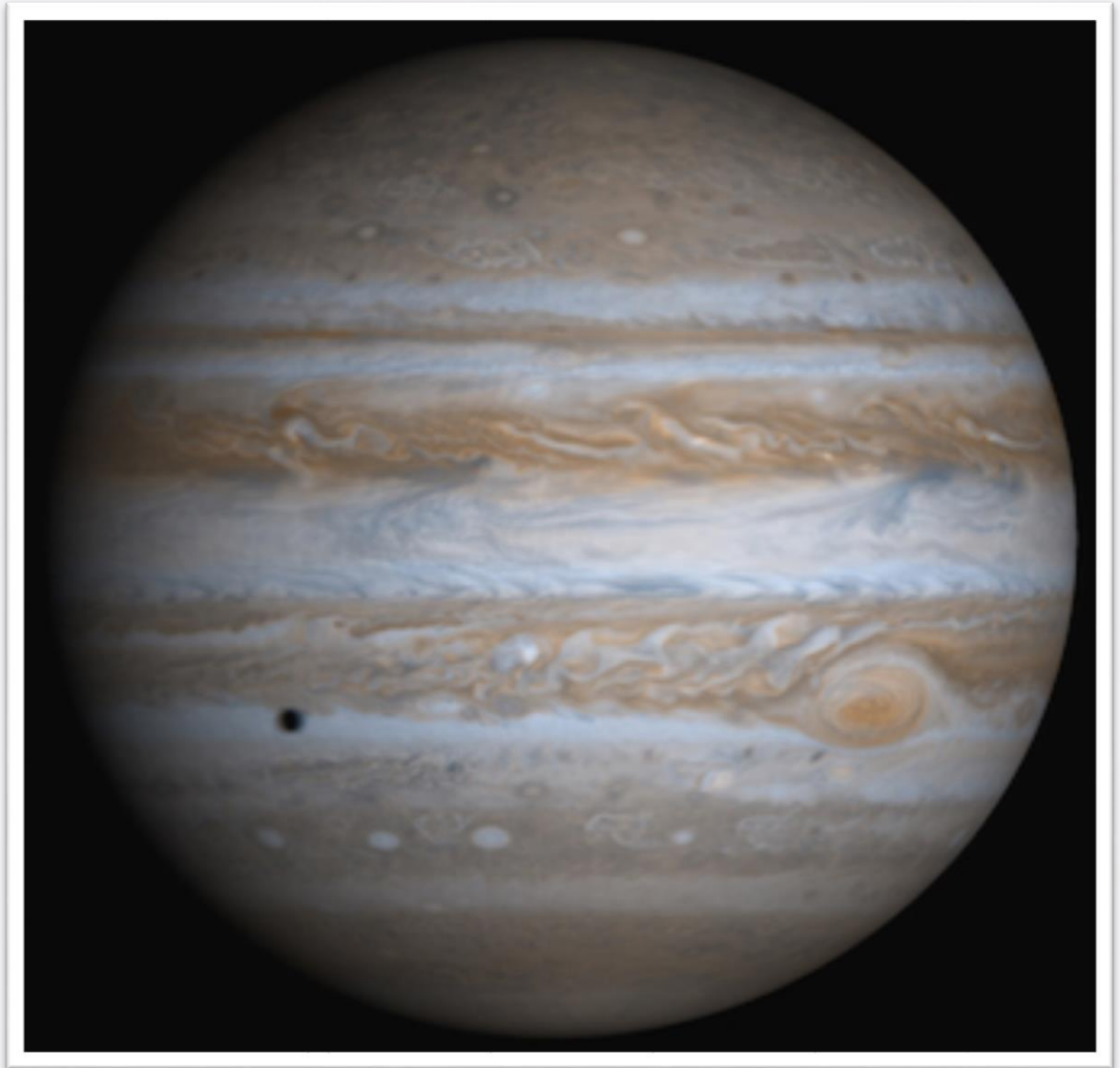
Welcome to Jupiter, the 'Big Planet'. It's called the big planet because it is the largest planet in the solar system. It is nearly 318 times more massive than Earth! It is the biggest of the gas giants. Jupiter is like a star that never started to burn.

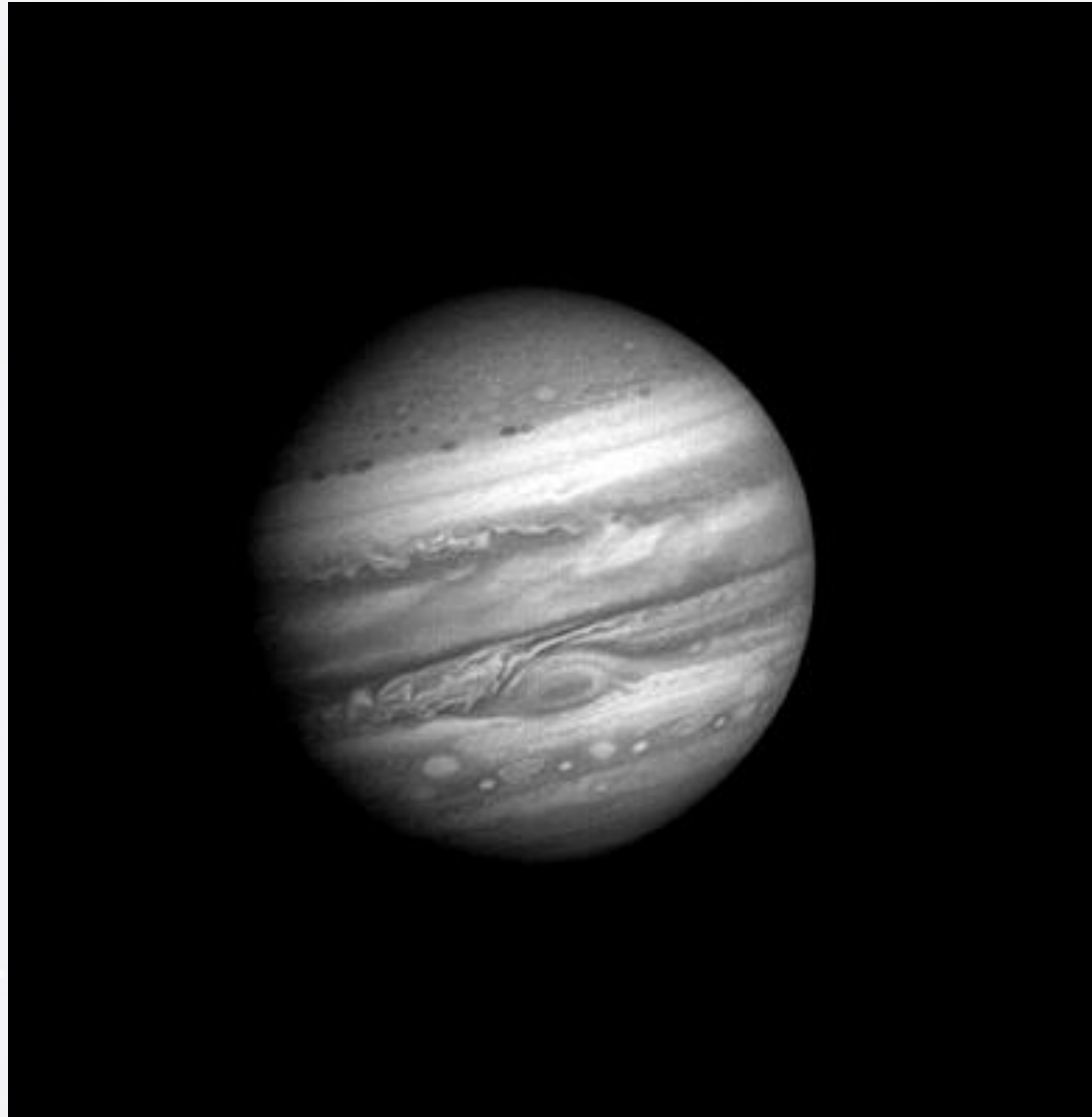
If you were on Jupiter, you would only be able jump about 15cm off the ground. The gravity is really strong here! But again... there is no ground to jump from!



JUPITER

Jupiter is so massive that even Hans and his looked would have been able to see it! Since those days, lots of different robots and probes have either visited Jupiter or passed by. The probe Cassini was able to take photos of Jupiter as it passed by. What do you think the black dot is?





If you were to visit Jupiter, there is one place you would want to avoid. The 'Great Red Spot' is an enormous hurricane on the surface on the planet. It has been going for at least 340 years! It so big that you could fit two or three planet earths inside the hurricane!

Jupiter does do an important job in our solar system. Every year Jupiter gets hit by thousands of asteroids. Because it is so big, Jupiter pulls all these flying asteroids into in. Think of it like the hoover of the solar system, sucking up all the asteroids!



When do you think would
happen if you fell into
Neptune?

Think, Pair Share!



Activity Time

We're going to make a solar system mobile! Working with your group, you are going to draw, research and construct a mobile that teaches us a bit more about each planet in our solar system.

You should organise your group by giving people roles or jobs to do.



Activity Time

Group Roles

- *Researcher*: look up an interesting fact about each planet
- *Artist*: use the pastels to draw and colour the planet for each mobile
- *Recorder*: neatly write out each fact to stick to the back
- *Free Role*: help each of the other 3 roles complete the task



Activity Time

What I'm Looking For:

- Each planet must be coloured with pastels using the Chromebooks.
- Each planet must be stuck onto a black background
- Each planet must have 1 fact written on the back of it.



Jupiter is the largest planet in the solar system and it was named after the Roman King God.