

The background is a vibrant space scene. On the left, a large sun with a yellow and orange gradient is partially visible. The rest of the background is a dark blue space filled with white stars. Several celestial bodies are scattered throughout: a brown planet with a ring (Saturn) at the top center, a blue and green Earth on the right, a grey moon in the top right, a brown planet with a ring (Saturn) at the bottom left, and a brown planet with a ring (Saturn) at the bottom right. A dark blue rounded rectangle is centered in the upper half of the image, containing the title text.

Earth and Space

Learning Objective:
To describe the movements of
the Sun, Earth and Moon.

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What do you already know about Earth and space?
Do you know the scientific meaning of any of these words
and how they might relate to this science topic?

seasons

day

year

Sun

Moon

spherical

axis

orbit

planet

star

eclipse

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night

rotate

month

Next

Sun



Moon



Earth



This lesson we will be focusing on these three celestial bodies. Can you tell your partner what they are? What scientific language can you use?

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celestial: adj. relating to the sky or outer space

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Sun

The Sun is at the centre of our solar system. It is a star made of burning gases. It burns at over 5000°C which provides the solar system with light and warmth.



The light from the Sun only takes eight minutes to travel the 149.6 million km to Earth!

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Sun



The Sun is the biggest object in our solar system. It makes up 98% of the total mass!

The Sun has a roughly spherical shape which is about 1,400,000 km in diameter. Earth has a diameter of just over 13,500 km. This means the Sun could fit 1,300,000 Earths inside it!

roughly spherical: adj. roughly shaped like a ball

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Earth

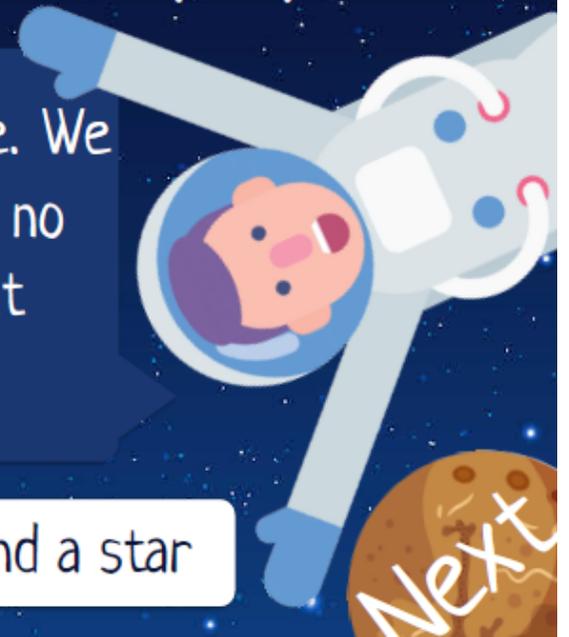
Earth is a planet. It is the third planet from the Sun and is the only one which has the correct conditions to sustain human life (us!).

Earth is also roughly spherical in shape. We say 'roughly' because we know that no planets, moons or stars are perfect spheres.

planet: noun. A celestial body which orbits around a star

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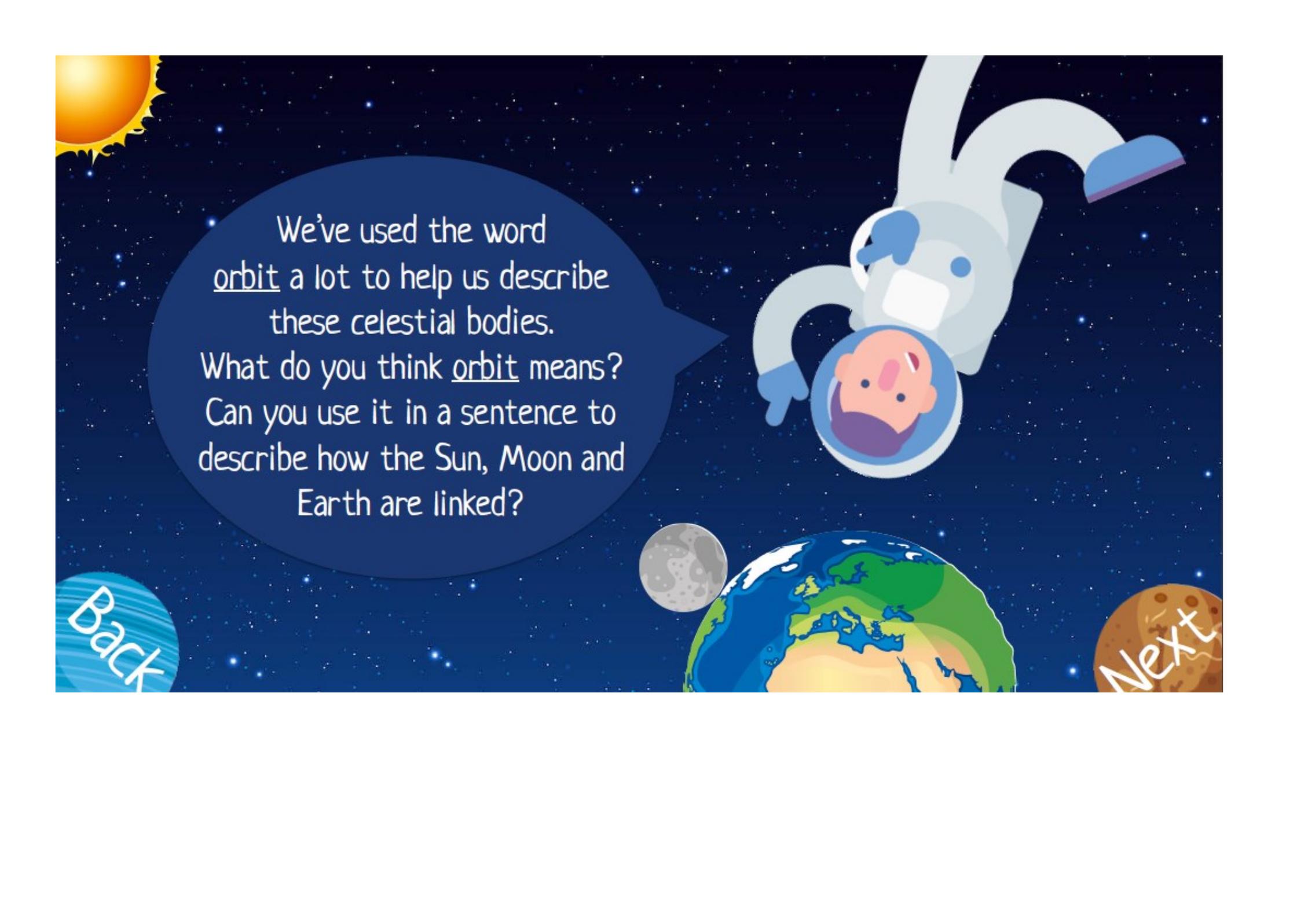


Moon

The Moon is a special celestial object called a natural satellite. This means it is a naturally occurring object (not man-made) which orbits a planet. The Moon orbits Earth but doesn't have anything orbiting it.

The Moon is also, you guessed it, roughly spherical in shape. It is about a quarter of the size of Earth.



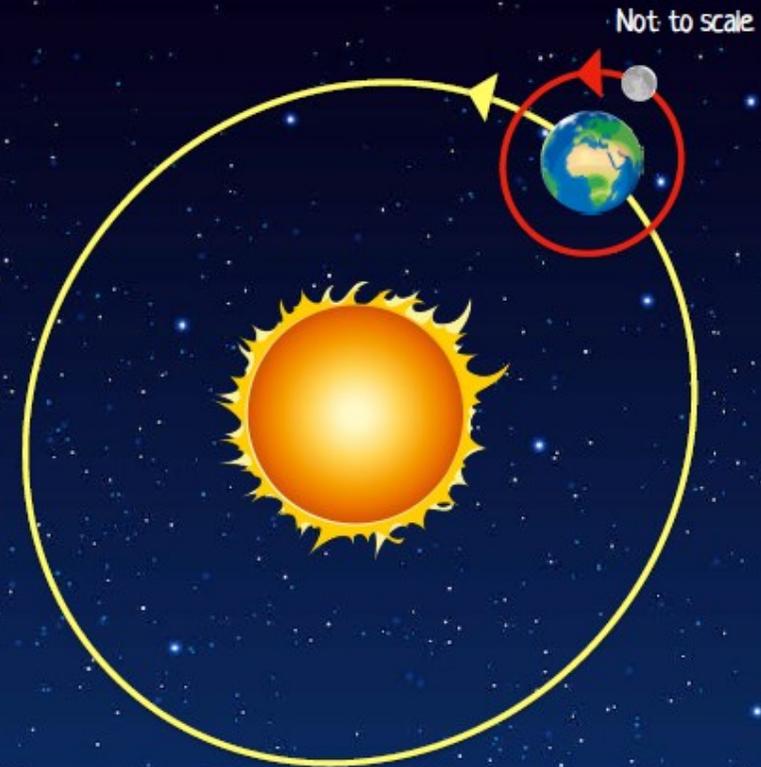


We've used the word orbit a lot to help us describe these celestial bodies. What do you think orbit means? Can you use it in a sentence to describe how the Sun, Moon and Earth are linked?

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An orbit is a repeating path that an object in space takes around another, larger object. The path of an orbit is normally elliptical or oval shaped, rather than a perfect circle.

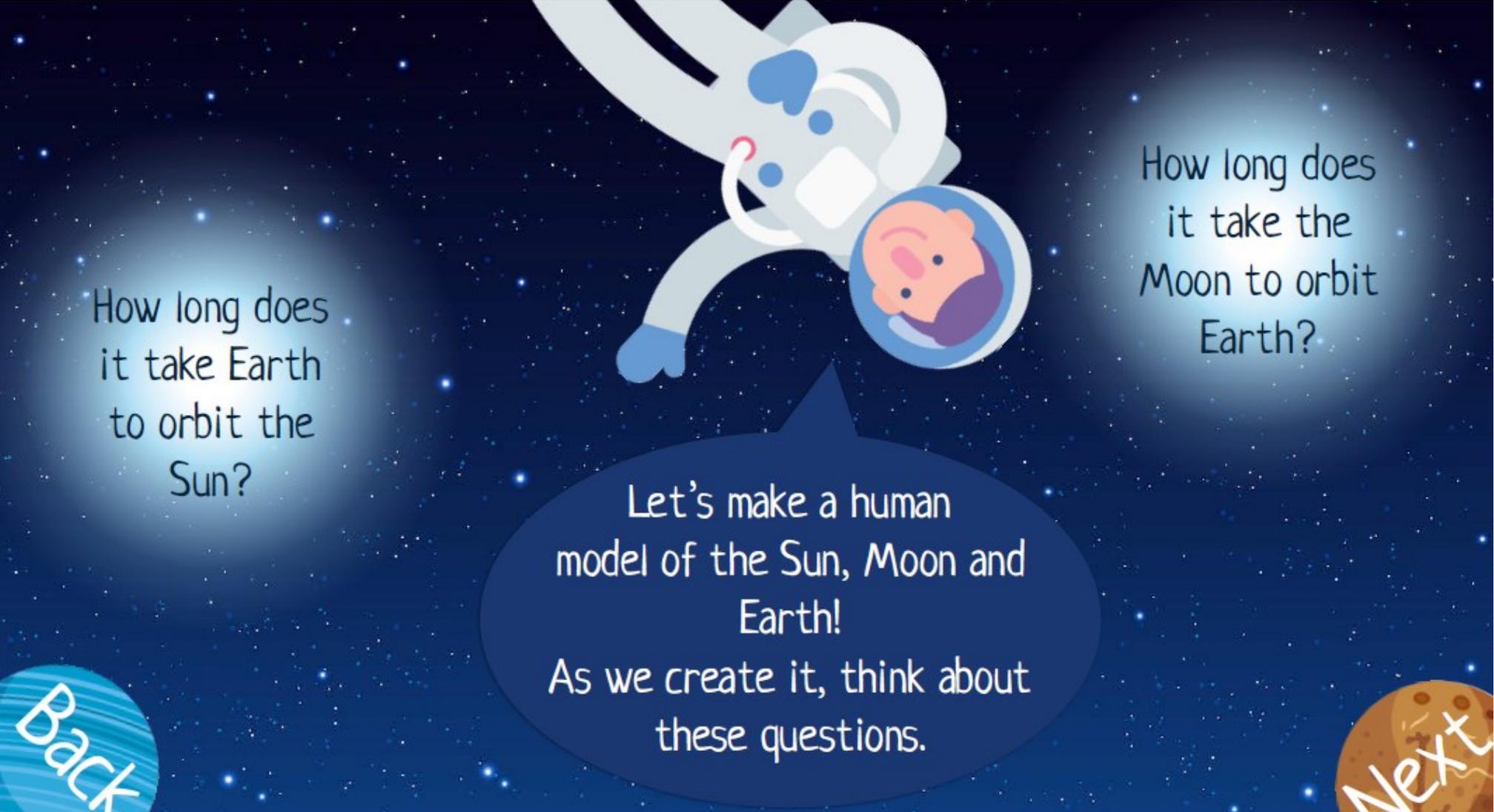


Earth and the Moon, as well as the other planets in the solar system, orbit in an anticlockwise direction.



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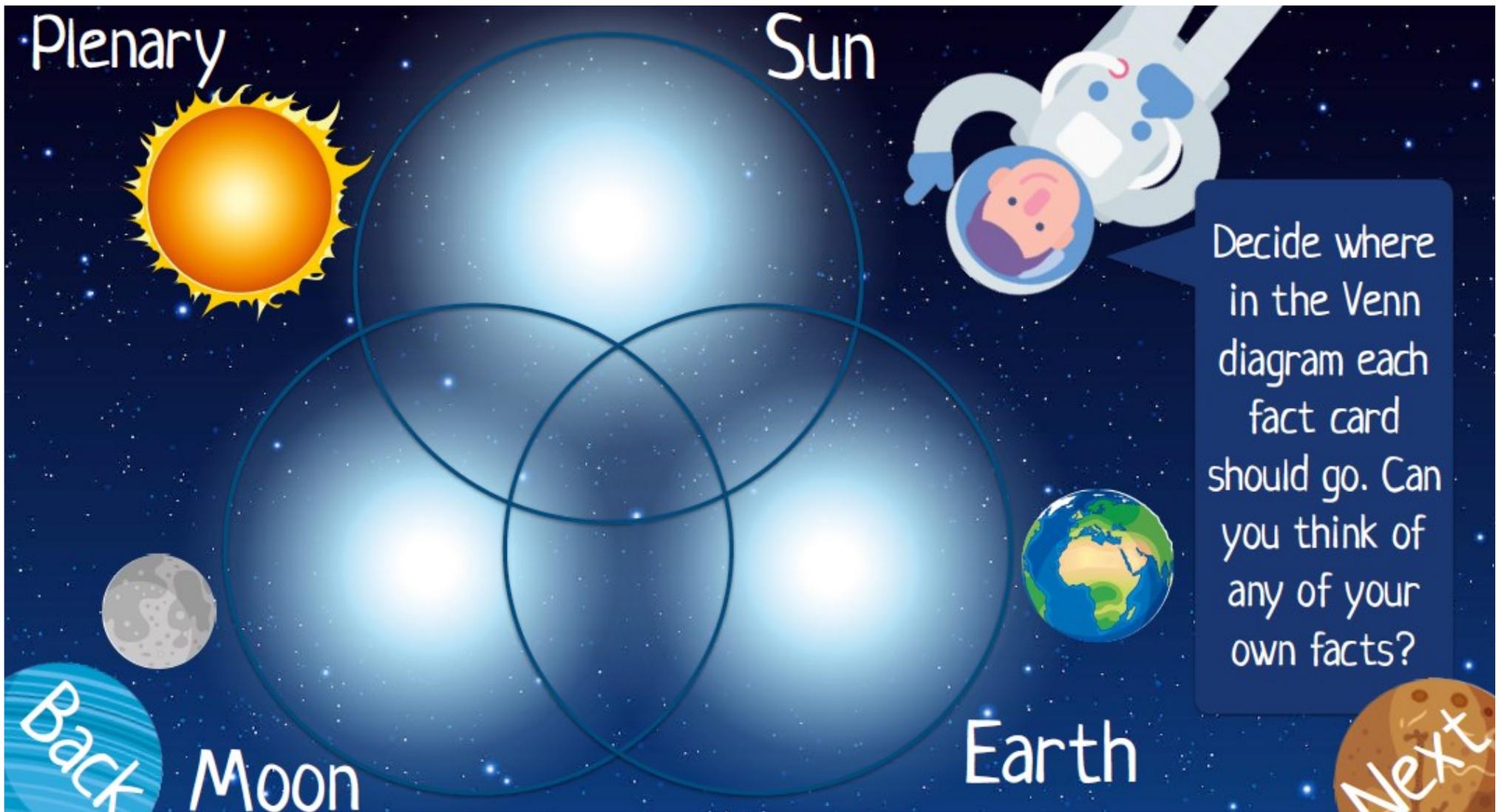
Next



How long does it take Earth to orbit the Sun?

How long does it take the Moon to orbit Earth?

Let's make a human model of the Sun, Moon and Earth!
As we create it, think about these questions.



On the next page, you will find facts on cards. Draw a venn diagram of your own (if you haven't got a printer) and write the letter of each facts card in the appropriate section e.g. A, B, C etc.

 A This celestial body orbits another celestial body.	 B This celestial body produces light.
 C This celestial body takes one month to complete its orbit.	 D This celestial body takes one year to complete its orbit.
 E This celestial body has other objects orbiting it.	 F This celestial body is roughly spherical.
 G This celestial body has no life on it.	

Answers are on the next page—no peeking beforehand!

