

SPACE

Are there planets like Earth? What is at the centre of a black hole? How big are the biggest stars? Find out about space and its surprises.

Do You Know? is a series of levelled non-fiction books featuring video content, project work and critical-thinking activities to motivate and engage young learners. Covering a range of STEM topics from nocturnal animals to climate change, **Do You Know?** takes an enquiry-based approach, developing children's language, communication and investigation skills.

Level 1 Pre-A1 • 400 headwords

Level 2 A1 • 600 headwords

Level 3 A1+ • 800 headwords

Level 4 A2 • 1100 headwords

Lexile measure 610L • Word count 1145

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Earth and space

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DO YOU KNOW?

SPACE

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Ladybird

DO YOU KNOW?

SPACE

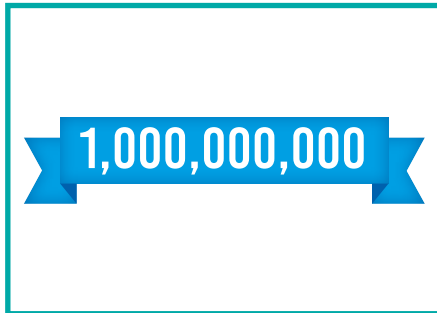


Level 4

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New words



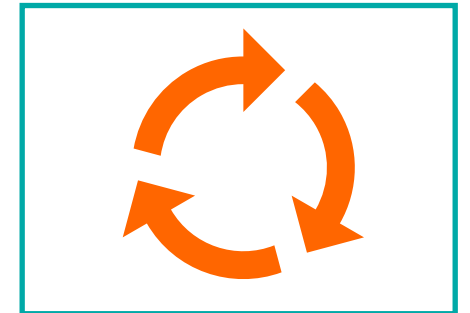
billion



connect



object
(noun)



rotate / rotation
(verb) / (noun)



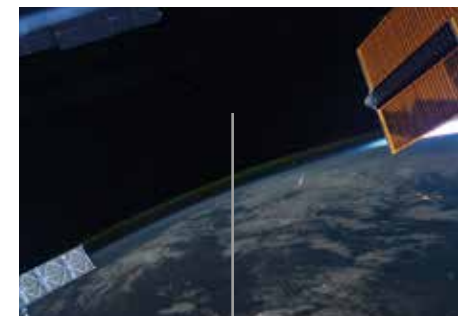
galaxy



gravity



scientist



space



huge



life



star

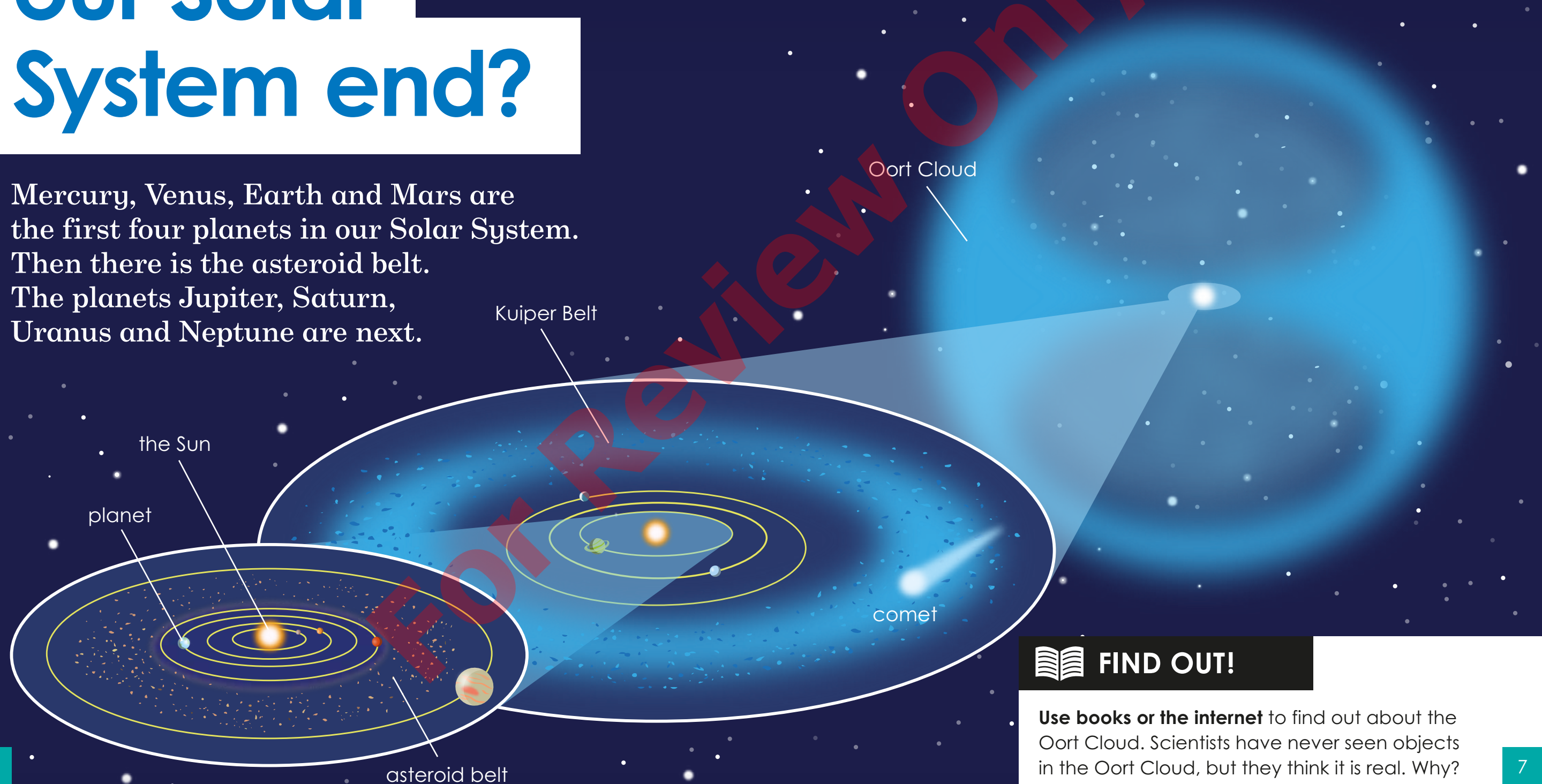


surface

Where does our Solar System end?

Mercury, Venus, Earth and Mars are the first four planets in our Solar System. Then there is the asteroid belt. The planets Jupiter, Saturn, Uranus and Neptune are next.

After Neptune is the Kuiper Belt. There are **billions** of asteroids, comets and small planets in the Kuiper Belt. Outside all of this is the Oort Cloud – a **huge** cloud of billions of **objects** at the end of our **Solar System**!



FIND OUT!

Use books or the internet to find out about the Oort Cloud. Scientists have never seen objects in the Oort Cloud, but they think it is real. Why?

Are there planets like Earth?

Earth is home to millions of animals and plants, but are there other planets like Earth? Earth is in the habitable zone of our Solar System. This is the part of a solar system where **life** can grow. It is not too hot or too cold, so planets in this zone can have water on their **surface**.

habitable zone

too cold

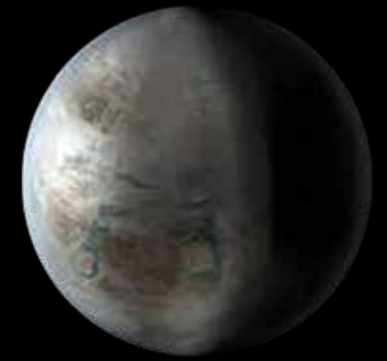
too hot

In 2015, a planet called Kepler-452b was found in the habitable zone of its solar system.

Kepler-452b is called 'Earth's older, bigger cousin'.

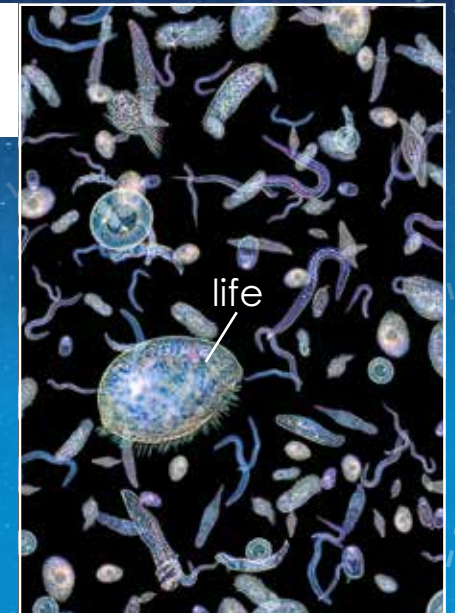


Earth



Kepler-452b

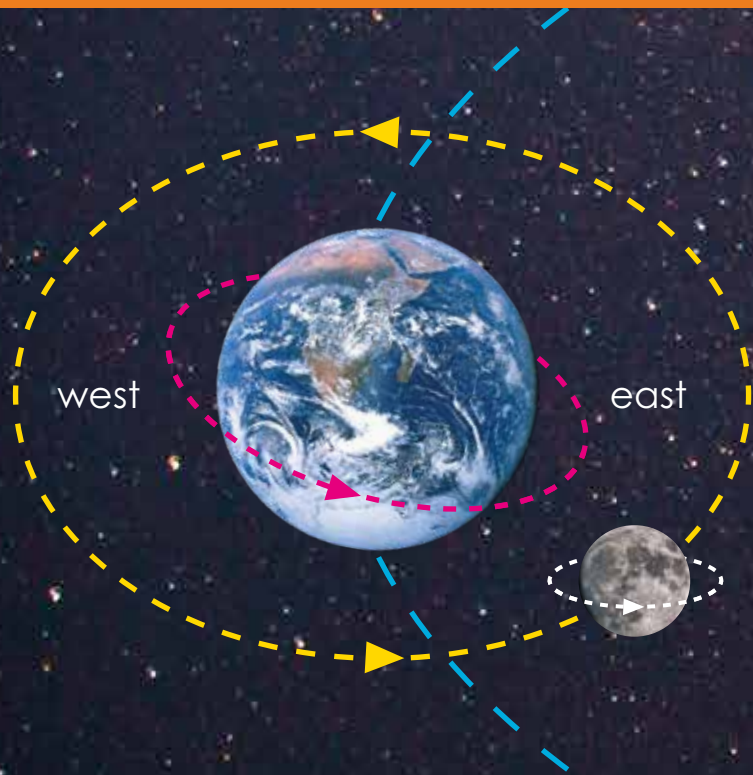
We don't know if there is life on Kepler-452b.



THINK!

Would you like to live on another planet?
Give reasons for your answer.

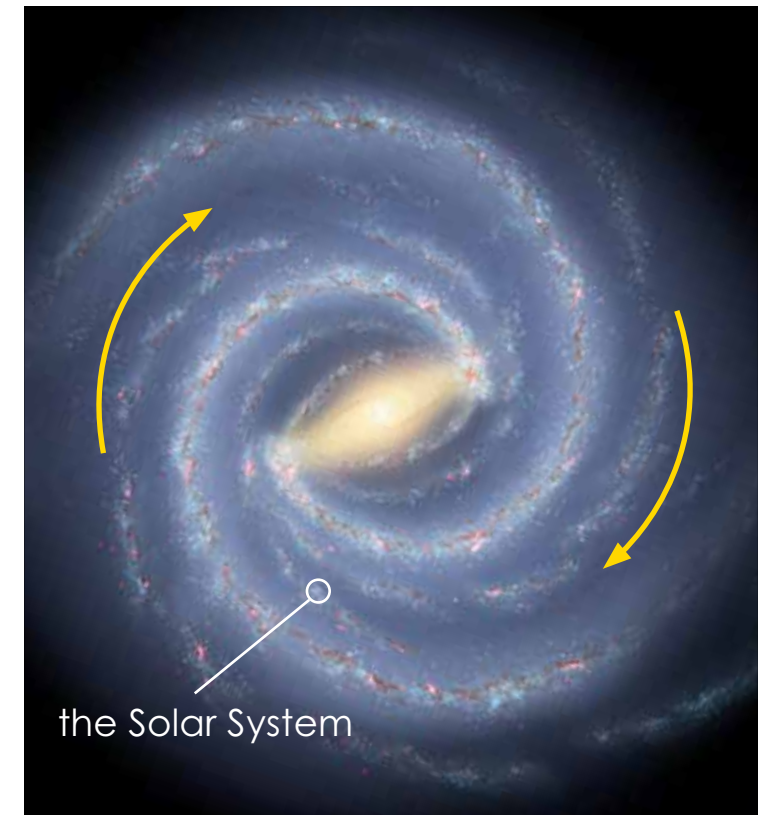
How do we know that Earth is moving?



Every day, the Sun and Moon come up in the east and move across the sky to the west. Watching this is how people first understood that Earth rotates, and that a full rotation takes 24 hours. Earth also travels around the Sun. It takes one year.



Cheetahs run at 121 kilometres an hour. Earth rotates at 1,675 kilometres an hour!



Our Solar System travels around the centre of our **galaxy**, the Milky Way.

PROJECT

Work with a friend. Make a poster about the different ways Earth moves.