

Worksheet 5.4A

Case study: Jupiter

Read the case study about Jupiter.

Jupiter is the largest planet in the solar system.
Jupiter orbits the Sun once every 12 Earth years.

Jupiter has four large moons, and at least 24 small moons which orbit it.
The largest moon is called Ganymede.
This is the largest moon in the whole solar system.

Jupiter consists mainly of two gases: hydrogen and helium, with smaller amounts of other gases in the surface layers.

Space projects have sent robotic probes to Jupiter.
A robotic probe is an unmanned spacecraft that lands on a body in space and collects data and takes photographs.
Probes have sent photographs of Jupiter back to scientists on Earth.
The photographs show colourful bands of clouds surrounding Jupiter.
No water has been found on Jupiter.

The Juno probe was launched from the USA in 2011.
It arrived in orbit around Jupiter in 2016.
Scientists hope it will stay in orbit around Jupiter until 2021.
It is powered by solar panels.
Already it has sent back amazing photographs of Jupiter.

Answer these questions.

- 1 What is a planet?

- 2 Which is the largest planet in the solar system?

- 3 What is a moon?

4 How many moons does Jupiter have?

5 What material does Jupiter consist of?

6 What is Juno?

Name _____ Date _____

Worksheet 5.4B

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1 Complete the table below to compare the planets Earth and Jupiter.

	Earth	Jupiter
Position in solar system	3rd from Sun	
Time to complete one orbit around the Sun	1 year	
Number of moons	1	
Composition	Rocks	
Is there any water on the surface?	Yes	

2 How do we get more information about Jupiter?

3 Describe what the Juno probe is doing.

Name _____ Date _____

Worksheet 5.4C

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- 1 a Which star does Jupiter revolve around?

- b How long does Jupiter take to orbit once round this star?

- 2 Draw a diagram in the space below to represent the orbit of Jupiter. Show the movement with arrows. Label the bodies and the orbit.

- 3 Compare the surfaces of Earth and Jupiter.

- 4 How do we continue to find out more about Jupiter and its moons?

- 5 Do you think it would be possible for a spacecraft to land on Jupiter? Explain why or why not.
