KS2 SCIENCE · EARTH AND SPACE (YEAR 5)

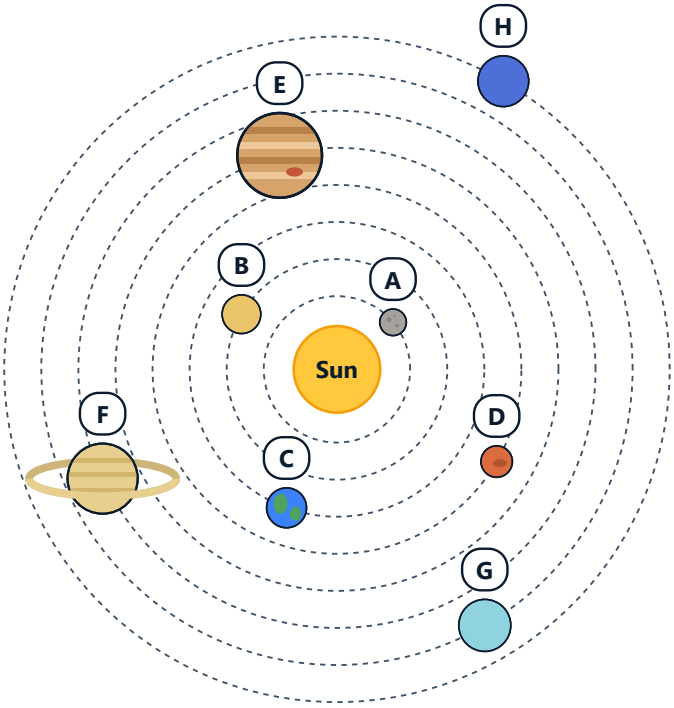
Planets orbiting the Sun

Worksheet · label, order and explain

Name: _____

Date: _____

A Label the solar system. Write the planet next to each letter.



Not to scale

Word bank:
Earth · Jupiter · Mars · Mercury
Neptune · Saturn · Uranus · Venus

A = _____

B = _____

C = _____

D = _____

E = _____

F = _____

G = _____

H = _____

Tip: My Very Easy Method Just Speeds Up Naming

B Draw 2 arrows on the orbits to show which way the planets travel.

Clue: seen from above Earth's North Pole, they all go the same way as each other.

C Rotate or orbit? Tick one box for each sentence.

	rotate	orbit
1. Earth spins once every 24 hours.	☐	☐
2. Earth travels once round the Sun in 365¼ days.	☐	☐
3. This gives us day and night.	☐	☐
4. This gives us one year.	☐	☐

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Planets orbiting the Sun

Worksheet · orbit times and true or false

D How long is a year on each planet? Use the table to answer.

Planet	Distance from the Sun	One orbit (one year)
Mercury	58 million km	88 days
Venus	108 million km	225 days
Earth	150 million km	365¼ days
Mars	228 million km	687 days
Jupiter	778 million km	about 11.9 years
Saturn	1,433 million km	about 29.5 years
Uranus	2,872 million km	about 84 years
Neptune	4,495 million km	about 165 years

Earth: use 365 days. 1 year = 365 days.

1. Which planet has the shortest year?

_____

2. Which planet has the longest year?

_____

3. How many days longer is a year on Mars than on Earth?

_____

4. Which planets take more than 10 years to orbit the Sun?

_____

5. You are 10 years old on Earth. About how old are you on Mercury? (Mercury goes round about 4 times each Earth year.)

_____

E True or false? Tick one box.

	true	false
1. The Earth is at the centre of the solar system.	☐	☐
2. All 8 planets orbit the Sun in the same direction.	☐	☐
3. The Sun is a star.	☐	☐
4. Pluto is the ninth planet.	☐	☐
5. Orbits are perfect circles.	☐	☐

F Explain: why does Neptune take the longest time to orbit the Sun?

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Answers: Planets orbiting the Sun

For teachers and parents

A Label the solar system

A = Mercury B = Venus C = Earth D = Mars

E = Jupiter F = Saturn G = Uranus H = Neptune

B Arrows

All arrows anticlockwise (the opposite way to a clock's hands), seen from above Earth's North Pole.

C Rotate or orbit

1. rotate
2. orbit
3. rotate
4. orbit

D Orbit times

1. Mercury (88 days)
2. Neptune (about 165 years)
3. 687 − 365 = 322 days longer
4. Jupiter, Saturn, Uranus and Neptune
5. About 40 (10 × 4 = 40). The exact answer is about 42.

E True or false

1. False: The Sun is at the centre. Earth orbits the Sun.
2. True: Seen from above, they all go anticlockwise.
3. True: The Sun is our nearest star.
4. False: Pluto is a dwarf planet (since 2006).
5. False: Orbits are slightly oval (ellipses), but nearly round.

F Explain (example answer)

Neptune is the farthest planet from the Sun. Its path round the Sun is the longest, and it moves the most slowly, so one orbit takes about 165 Earth years. (Accept: it is farthest away, so it has the longest path.)