

SCIENCE · Y4–Y6

Earth and Space

Knowledge Organiser — Y4–Y6

The Solar System

Our star and its eight planets (in order)

- 1. Mercury — smallest planet; closest to Sun; no atmosphere
- 2. Venus — hottest planet (thick CO₂ atmosphere); brightest object in night sky after Moon
- 3. Earth — only planet known to support life; has one moon
- 4. Mars — the 'Red Planet'; has the solar system's tallest volcano (Olympus Mons)
- 5. Jupiter — largest planet; the Great Red Spot is a storm larger than Earth
- 6. Saturn — famous ring system; least dense planet (would float on water)
- 7. Uranus — rotates on its side; coldest planetary atmosphere
- 8. Neptune — windiest planet; farthest from Sun
- MNEMONIC: My Very Excellent Mother Just Served Us Noodles

Key concepts

1

Day and night

Caused by the Earth rotating on its axis once every 24 hours. The side facing the Sun has day; the side facing away has night.



2

Year

The time it takes Earth to orbit the Sun once: 365.25 days.

3

Seasons

Caused by the tilt of Earth's axis (23.5°). When the northern hemisphere tilts towards the Sun it has summer; when it tilts away it has winter.

4

Moon phases

The Moon orbits Earth over 27–29 days. We see different fractions of the lit side: new moon → crescent → half → gibbous → full → back.

5

Gravity

The force of attraction between all objects with mass. The Sun's gravity keeps planets in orbit.

