

**YEAR 7**

Space: the Earth, Sun and Moon

Three parts that get harder: a warm-up, where you should be now, then a stretch. Write the letter of the right option, or a number where one is asked for. Weight questions give you the value of g to use.

Name: _____

Date: _____

Score: _____

A. Warm-up

Day, night, years and orbits.

- 1 What causes day and night?
 - (a) The Earth spinning on its axis
 - (b) The Sun moving around the Earth
 - (c) The Moon blocking the Sun
 - (d) The Earth orbiting the Sun
- 2 About how many hours does the Earth take to spin once?
- 3 How long does the Earth take to orbit the Sun?
 - (a) About 24 hours
 - (b) About 365 days
 - (c) About 28 days
 - (d) About 10 years
- 4 What is the Sun?
 - (a) A planet
 - (b) A moon
 - (c) A star
 - (d) A comet

- 5 Which planet is closest to the Sun?
- (a) Venus
 - (b) Earth
 - (c) Mars
 - (d) Mercury
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B. Where you should be now

Seasons and the Moon both come down to angles and light.

- 6 Why does the UK have seasons?
- (a) The Earth's axis is tilted
 - (b) The Earth is closer to the Sun in summer
 - (c) The Sun gets hotter in summer
 - (d) The Moon blocks sunlight in winter
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- 7 In the UK's summer, the northern half of the Earth is
- (a) tilted away from the Sun
 - (b) tilted towards the Sun
 - (c) not tilted at all
 - (d) behind the Moon
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- 8 Why does the Moon shine?
- (a) It makes its own light
 - (b) It is on fire
 - (c) It reflects light from the Sun
 - (d) It reflects light from the Earth's cities
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- 9 Why does the Moon seem to change shape during a month?
- (a) The Earth's shadow covers part of it
 - (b) It really changes shape
 - (c) Clouds hide part of it
 - (d) We see different amounts of its sunlit half as it orbits the Earth
-

- 10 About how long does the Moon take to go through all its phases?
- (a) About a month
 - (b) About a day
 - (c) About a week
 - (d) About a year
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- 11 Which force keeps the planets in orbit around the Sun?
- (a) Friction
 - (b) Gravity
 - (c) Magnetism
 - (d) Air resistance
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C. Stretch

Mass stays the same everywhere; weight depends on gravity.

- 12 You weigh less on the Moon than on Earth because
- (a) you have less mass there
 - (b) there is no air
 - (c) the Moon's gravity is weaker
 - (d) the Moon is further from the Sun
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- 13 Your mass on the Moon, compared with on Earth, is
- (a) less
 - (b) more
 - (c) zero
 - (d) the same
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- 14 On Earth g is about 10 N/kg. What is the weight of a 50 kg person?
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- 15 On the Moon g is about 1.6 N/kg. What is the weight of the same 50 kg person?
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- 16 A light year is a measure of
- (a) distance
 - (b) time
 - (c) brightness
 - (d) speed
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- 17 A solar eclipse happens when
- (a) the Earth passes between the Sun and the Moon
 - (b) the Moon passes between the Sun and the Earth
 - (c) the Sun goes behind a cloud
 - (d) the Moon is full