Space

KS3 Physics · Follows the national curriculum

Name _____ Class _____ Date _____

1. Worked example

Is the Sun a star or a planet?

Step 1 · Stars

Stars are huge balls of hot gas that give out their own light, released by nuclear fusion.

Step 2 · The Sun

The Sun does this, so it is a star — a fairly ordinary, medium-sized one.

Answer: A star

Check: Planets don't make their own light; they reflect the Sun's.

2. Now try one with the steps

Why does the Sun look so much bigger and brighter than other stars?

Step 1 · Distance

Step 2 · Result

Answer:

3. Practice

Show your working. The marks tell you how much is expected.

1. Is the Sun a star or a planet? [1]

2. What is the name of our galaxy? [1]

3. Name the eight planets in order from the Sun. [1]

4. What is a galaxy? [1]

5. What is the main difference between a star and a planet? [2]

6. What is the nearest star to Earth after the Sun? [1]

7. About how many stars are in the Milky Way? [1]

8. Put in order of size, smallest first: Solar System, Moon, Universe, Sun, Milky Way. [2]

9. Why does the Sun look much bigger than other stars, even though many are larger? [1]

10. Name the four inner (rocky) planets. [1]

11. Sunlight travels 4 500 000 000 km to Neptune at 300 000 km/s. How many seconds does it take? [2]

12. What process releases energy in the Sun? [1]

13. Why can't we see other stars during the day? [2]

14. Explain what holds the planets in orbit around the Sun. [2]

4. Before you hand it in

"The Sun is a planet" or "the Sun is the biggest star."
The Sun is a medium-sized star; many stars are far bigger.

Mixing up Solar System, galaxy and Universe.
Solar System (one star) → galaxy (billions of stars) → Universe (billions of galaxies).

"The Moon gives out light."

Moonlight is reflected sunlight.