Year 7 Science: The Moon's phases, and why it rises later each day

Name: _____ Date: _____

Try these without your notes first, then check the answer key.

Practice

1. What do we call the phase when the Moon is between Earth and the Sun?

2. From New Zealand, a half Moon is lit on its left side. Is it first quarter or last quarter?

3. A full moon is on 23 January 2027. Roughly when will the next full moon be?

4. The Moon rises at 7:00 pm tonight. At about what time will it rise tomorrow?

5. Why do we see phases at all, if half the Moon is always lit?

Fix the mistake

6. Correct this statement: "The phases are caused by Earth's shadow falling on the Moon."

7. Correct this statement: "The Moon only comes out at night."

8. Correct this statement: "A first quarter moon is a quarter lit."

9. Correct this statement: "The Moon gives off its own light."

Answer key (for parents and tutors)

1. What do we call the phase when the Moon is between Earth and the Sun?
   New moon.
2. From New Zealand, a half Moon is lit on its left side. Is it first quarter or last quarter?
   First quarter, because from New Zealand a waxing Moon is lit on the left.
3. A full moon is on 23 January 2027. Roughly when will the next full moon be?
   About 29.5 days later, around 21 or 22 February 2027.
4. The Moon rises at 7:00 pm tonight. At about what time will it rise tomorrow?
   About 50 minutes later, at around 7:50 pm.
5. Why do we see phases at all, if half the Moon is always lit?
   As the Moon orbits Earth, we see different amounts of its lit half.
6. Correct this statement: "The phases are caused by Earth's shadow falling on the Moon."
   Phases come from how much of the Moon's sunlit half we can see; Earth's shadow only reaches the Moon in a lunar eclipse.
7. Correct this statement: "The Moon only comes out at night."
   The Moon is up for about half of each day, and you can often see it in daylight, especially near the quarter phases.
8. Correct this statement: "A first quarter moon is a quarter lit."
   At first quarter, half the disc is lit; the name means the Moon is a quarter of the way through its cycle.
9. Correct this statement: "The Moon gives off its own light."
   The Moon only reflects sunlight; half of it is always lit by the Sun.