

Phases of the Moon

Chapter 12: Earth, Moon, and the Sun · Topic 1

Key Concept

During a new moon, the Moon lies between the Earth and Sun, so its illuminated side faces away from us, making it invisible; during a full moon, Earth lies between the Sun and Moon, so we see its fully lit side. The roughly two-week gap between a new moon and full moon reflects the time it takes the Moon to complete half its orbit around Earth. Tracking moon phases has historically been used to create lunar calendars, still used today for determining festival dates in many cultures.

Quick Revision Notes

- Moon phases cycle roughly every 29.5 days: new moon → crescent → first quarter → gibbous → full moon.
- Phases occur because we see different amounts of the Moon's sunlit half from Earth.
- New moon: Moon between Earth and Sun. Full moon: Earth between Sun and Moon.
- Lunar calendars, based on moon phases, are used to determine many festival dates.

Practice Questions

- 1 Observe and record the Moon's shape over one week.
- 2 Explain the difference between a new moon and a full moon in terms of Earth-Sun-Moon alignment.
- 3 Why are lunar calendars still used for determining certain festival dates?