

PRACTICE WORKBOOK

CLASS 11

Geography

Six selected-topic units with original lessons, scenarios and reasoned answers. All fictional scenarios and datasets are labelled. Supplementary school practice, not a complete syllabus or official examination.

**6 practice units****36 tasks with answer guidance**

Name / नाम: _____

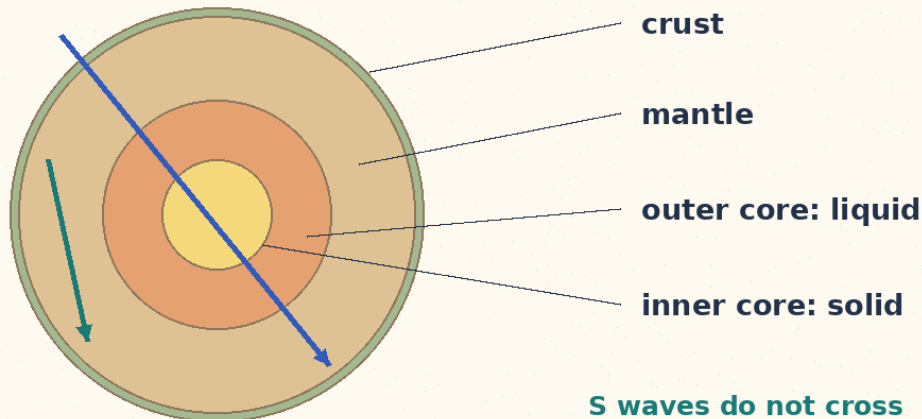
Original selected-topic practice. Use alongside school lessons and the prescribed textbook. The contents define this book's scope.

UNIT 01 · LOOK & EXPLAIN

Interior of the Earth: indirect evidence

Earth layers: wave behaviour is indirect evidence

Layer thicknesses and the indicated paths are schematic, not to scale



P waves can pass through liquid

These paths indicate propagation properties only; they are not a refraction or shadow-zone plot.

**S waves do not cross
the liquid outer core**

Use the labels and worked example to explain the idea. The diagram is schematic unless a scale is given.

Look, annotate and explain

Identify the parts or values that matter. Add a label or annotation to show a connection. Explain how the diagram supports the worked example, then use it with the practice on the next page.

UNIT 01 · APPLY & EXPLAIN

Interior of the Earth: indirect evidence

4. Compare P and S waves as tools for studying deep Earth. [3 marks]

5. Original fictional evidence exercise: Several stations detect P waves but not S waves along paths crossing a deep region. Give an observation, an inference and a limitation. [4 marks]

6. Why should seismic evidence be combined with density or gravity estimates? [4 marks]

Show your thinking with a drawing, diagram or explanation.

Pause & reflect

What can I explain now? What will I try again?

☐ I tried ☐ I explained ☐ I checked



UNIT 01 · ANSWER GUIDANCE

Interior of the Earth: indirect evidence

1. S waves require shear rigidity, which liquids lack. Their inability to pass through the layer supports a liquid-state interpretation alongside other evidence.
2. They come from limited depths. Extrapolation to the core requires indirect evidence and models rather than assuming surface samples represent every layer.
3. A solid can deform slowly over geological timescales. The mantle is predominantly solid; long-term flow and local melting do not imply wholesale liquid state.
4. P waves pass through solids and liquids; S waves pass through solids but not liquids. Their different paths and arrival patterns constrain material state and boundaries when interpreted together.
5. Observation: the recorded arrivals differ by wave type. Inference: a liquid region may block S waves while transmitting P waves. Limitation: this does not alone identify exact composition, and station coverage and paths must be considered.
6. Each evidence type constrains different properties and has limits. Combining them tests whether an internal model fits both wave behaviour and mass-related observations rather than explaining one pattern in isolation.

Teaching note

A labelled cross-section is a model of evidence-based inference, not a view photographed directly.

Curriculum reference: https://cbseacademic.nic.in/web_material/CurriculumMain27/SecPart2/Geography_SecP2_2026-27.pdf
Selected units; outcomes are publisher-defined. Practical, project and prescribed literature requirements must also be studied through school.