



Class 9 Social Science – Chapter 2

Free Worksheets – India and the Physical World

Book: *Understanding Society: India and Beyond – Grade 9, Part 1*
Chapter 2: India and the Physical World

This worksheet pack is based on the official textbook, including **Earth's interior, lithosphere, tectonic plates, plate movement, earthquakes, volcanoes and the Ring of Fire**. The textbook explains that plate movement shapes mountains, valleys, ocean basins, volcanoes and earthquakes.



WORKSHEET 1 – Earth's Interior & Tectonic Plates

Name: _____

Class: _____ **Date:** _____

A. Fill in the Blanks

1. The Earth is made up of three main layers: _____, _____ and _____.
2. The outermost layer of the Earth is called the _____.
3. The layer below the crust is the _____.
4. The innermost layer of the Earth is called the _____.
5. The crust together with the upper part of the mantle forms the _____.
6. The _____ lies beneath the lithosphere and allows tectonic plates to move.
7. Tectonic plates are massive slabs of _____ rock.
8. Tectonic plates usually move a few _____ per year.

B. Match the Following

Column A

Column B

- | | |
|----------|--------------------|
| 1. Crust | a. Innermost layer |
|----------|--------------------|

- | | |
|------------------|---------------------------------|
| 2. Mantle | b. Rigid outer layer |
| 3. Core | c. Outer layer on which we live |
| 4. Lithosphere | d. Thick, mostly solid layer |
| 5. Asthenosphere | e. Hot, mobile layer |

Answers:

1. _____ 2. _____ 3. _____ 4. _____ 5. _____

C. Choose the Correct Answer

1. Which is the outermost layer of the Earth?

- A. Mantle
- B. Core
- C. Crust
- D. Asthenosphere

2. Which layer allows tectonic plates to move?

- A. Inner core
- B. Asthenosphere
- C. Crust
- D. Outer core

3. Tectonic plates are:

- A. Clouds of gases
- B. Massive slabs of solid rock
- C. Ocean currents
- D. Layers of atmosphere

4. Which layer is the densest part of the Earth?

- A. Crust
- B. Mantle
- C. Inner core
- D. Lithosphere

The textbook describes the crust, mantle, core, lithosphere and asthenosphere and gives their approximate characteristics.

WORKSHEET 2 – Plate Tectonics

A. True or False

1. The lithosphere is broken into tectonic plates. _____
 2. Tectonic plates remain completely stationary. _____
 3. Plate movement helps shape the Earth's surface. _____
 4. Plate movement can cause earthquakes. _____
 5. Plate movement can lead to the formation of volcanoes. _____
 6. Most earthquakes and volcanoes occur far away from plate boundaries. _____
 7. The Pacific Ocean region contains many active plate boundaries. _____
 8. The Pacific region is known as the Ring of Fire. _____
-

B. Complete the Concept Map

Plate Tectonics



Tectonic Plates → _____



Plate Movement → _____



Can form:



Mountains





Ocean basins



Earthquakes

The textbook directly connects plate movement with the formation of mountains, valleys, ocean basins, volcanoes and earthquakes.

C. Short Answer Questions

1. What are tectonic plates?

2. What is the lithosphere?

3. What is the asthenosphere?

4. How does plate tectonics help explain changes on Earth's surface?

5. Why are many earthquakes and volcanoes found along plate boundaries?



WORKSHEET 3 – Earthquakes & Volcanoes

A. Choose the Correct Answer

1. An earthquake is associated with:

- A. Sudden movement within the Earth
- B. Cloud formation
- C. Ocean evaporation
- D. Wind movement

2. Volcanic eruptions can deposit:

- A. Snow
- B. Volcanic ash and other materials
- C. Rainwater
- D. Ocean water

3. Most earthquakes and volcanoes are concentrated around:

- A. Plate boundaries
- B. Deserts only
- C. River valleys only
- D. Polar regions only

4. The Pacific region with many earthquakes and volcanoes is called the:

- A. Green Belt
 - B. Ring of Fire
 - C. Snow Belt
 - D. Mountain Ring
-

B. Answer in One or Two Sentences

1. What causes earthquakes according to the plate-tectonic explanation?

2. What is a volcanic eruption?

3. What is the Ring of Fire?

4. Why is understanding plate tectonics important for disaster management?

The textbook states that understanding plate tectonics helps identify earthquake- and volcano-prone regions and assists in managing disasters arising from them.



WORKSHEET 4 – Map Skills

A. Plate Identification

Use the textbook's world plate map and identify **any five major tectonic plates**.

1. _____
2. _____
3. _____
4. _____
5. _____

The textbook map includes the **Pacific, North American, South American, African, Eurasian, Indo-Australian and Antarctic Plates**.

B. Complete the Table

Plate	Continent(s))	Ocean(s)
Pacific Plate	_____	_____ —
Eurasian Plate	_____	_____ —
African Plate	_____	_____ —
Indo-Australian Plate	_____	_____ —

C. Map-Based Thinking

Look at a tectonic plate map and an earthquake/volcano map.

1. What relationship do you observe between plate boundaries and earthquake locations?

2. What relationship do you observe between plate boundaries and volcano locations?

3. Why do you think the Pacific Ocean region has so many earthquakes and volcanoes?

This follows the textbook's “**Let's Explore**” activity asking students to compare the plate map with the earthquake and volcano map.



WORKSHEET 5 – HOTS & Application

1. A region experiences frequent earthquakes and has several volcanoes.

a. What might this indicate about the region's tectonic setting?

b. What type of map could help identify whether it lies near a plate boundary?

c. Why is this information useful for disaster management?

2. Think & Explain

“The Earth's surface is constantly changing.”

Explain this statement using the concept of plate tectonics.

3. Imagine that two tectonic plates are moving.

What kinds of landforms or natural hazards might result from plate movement?

4. Why should people living in earthquake-prone regions understand the causes and distribution of earthquakes?

WORKSHEET 6 – Quick Revision Quiz

Circle the correct answer.

1. The three main layers of the Earth are:

- A. Crust, atmosphere, core
- B. Crust, mantle, core
- C. Mantle, ocean, crust
- D. Lithosphere, atmosphere, core

2. The lithosphere includes:

- A. Crust + upper mantle
- B. Only the core
- C. Only the mantle
- D. Atmosphere + crust

3. Tectonic plates move over the:

- A. Inner core
- B. Asthenosphere
- C. Atmosphere
- D. Ocean

4. Plate movement can cause:

- A. Earthquakes
- B. Volcanoes
- C. Mountain formation
- D. All of the above

5. The Ring of Fire surrounds much of the:

- A. Atlantic Ocean
- B. Indian Ocean
- C. Pacific Ocean
- D. Arctic Ocean

6. The study of tectonic plates helps us understand:

- A. Only weather
 - B. Earth-surface changes and natural hazards
 - C. Only ocean currents
 - D. Only climate
-



BONUS – Assertion & Reason

1. Assertion:

Tectonic plates move slowly.

Reason: Tectonic plates are massive slabs of solid rock that move over the underlying asthenosphere.

2. Assertion:

Earthquakes and volcanoes are concentrated in certain regions.

Reason: Many occur along tectonic plate boundaries.

3. Assertion:

Plate tectonics is important for disaster management.

Reason: It helps identify earthquake- and volcano-prone regions.



ANSWER KEY

Worksheet 1

A.

1. crust, mantle, core
2. crust
3. mantle
4. core
5. lithosphere
6. asthenosphere
7. solid
8. centimetres

B.

- 1 – c
2 – d
3 – a
4 – b
5 – e

C.

1. C
 2. B
 3. B
 4. C
-

Worksheet 2

A.

1. True
2. False
3. True
4. True
5. True
6. False

7. True
8. True

B.

Possible answers:

Plate Tectonics → Tectonic Plates → Plate Movement → Mountains, Volcanoes, Ocean Basins, Valleys, Earthquakes

Worksheet 3

A.

1. **A**
 2. **B**
 3. **A**
 4. **B**
-

Worksheet 6

1. **B**
2. **A**
3. **B**
4. **D**
5. **C**
6. **B**