

SUMMARY SHEET

Learner Previous Knowledge

Generic meaning of Earthquake
General knowledge of what happens during earthquake

Target Knowledge for this topic

How do Earthquakes and lightning happen?
Causes of Earthquakes
How to measure magnitude of earthquake?
Effects of earthquake and lightning.
Protection measures against earthquake and lightning.

Learning Goals

More Complex Learning Goal- Students will be able to explain the causes of earthquake and lightning, and suggest preventive measures for both.

Target Learning Goal- Students will be able to describe why and how earthquake and lightning occurs.

Simpler Learning Goal- Students will be able to state what is earthquake and lightning.

Period No.

Lesson Objectives

Teaching Learning Materials Required

1 and 2

- Explain Earthquake, a natural phenomenon and define the science that deals with it.

- Board and markers
- Worksheet 1

3 and 4

- Explain lightning, a natural phenomenon and define the science that deals with it.

- Board and markers
- Worksheet 2

Class:8	Subject: Science	Topic: Some Natural Phenomena
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	• Understand safety measures during thunderstorms	
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Lesson Plan 1

Lesson Objectives

At the end of this lesson students will be able to:

- Explain Earthquake, a natural phenomenon and define the science that deals with it.

Teaching Learning Materials required

- Board and markers
- Worksheet 1

Details of Teaching Learning Experience

Seating Arrangement: - In groups of 4 or 5

Lesson Beginning <u>Time:</u> 10 min <u>Purpose:</u> • Introduce the topic	<u>Introduction to the topic</u> • Introduce the topic of earthquake by posing questions such as: ○ What do you understand by an Earthquake? ○ What devastating effects have been observed of an Earthquake? ○ Which is the most recent Earthquake which has wreaked havoc? • Collate their responses on the board. • Now inform the students that they will understand what is an Earthquake and what happens during an Earthquake.
Lesson Middle <u>Time:</u> 50 min <u>Purpose:</u> • Develop conceptual understanding	• Ask the students to read about earthquakes from their book. • Let them discuss the important points in their groups. • Distribute worksheet 1 to all the groups. • Ask the groups to attempt questions based on it. • Let the groups now share their responses and brainstorm for the answers. • Collect all the answers and ensure that they arrive at a common consensus.

Class:8	Subject: Science	Topic: Some Natural Phenomena
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Lesson End <u>Time:</u> 10 min <u>Purpose:</u> • Finish up	<u>Finish Up</u> • Clear doubts of the students. Homework • Find out about the few recent earthquakes in the world.
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Worksheet 1**Skill: Comprehension**

1. What is the surface where the tectonic plates slip against each other called?

2. What are plate boundaries?

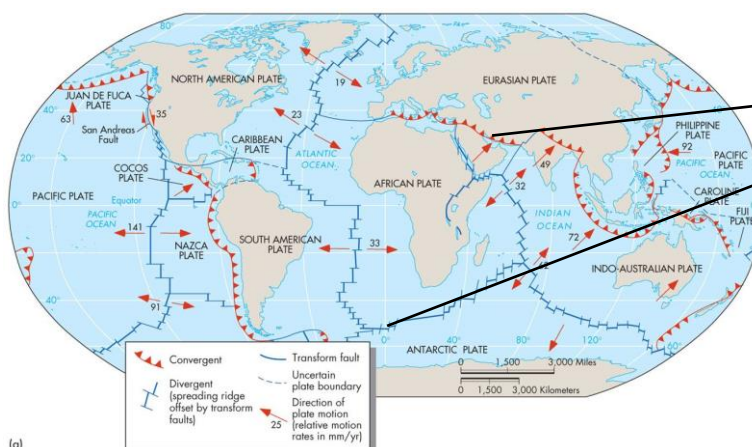
3. Why is energy released during an earthquake?

4. Why does the Earth shake during an earthquake?

5. How does the energy released during earthquake radiate?

6. Observe the pictures and the label with it. Define the labelled part of the pictures.

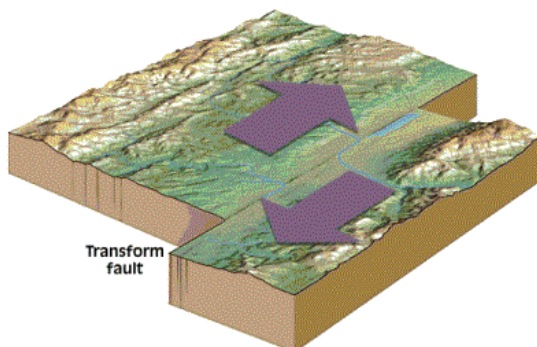
a.



Tectonic plates

Tectonic Plate

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Transform Fault

b.

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7. List any three steps to protect yourself from earthquake when you are

1. Indoors

2.Outdoors

8. How can you make building ‘Quake safe’?

Class:8	Subject: Science	Topic: Some Natural Phenomena
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Period 3 and 4

Lesson Objectives

At the end of this lesson students will be able to:

- Understand about causes and effects of Lightning.
- Safety measures against lightning.

Teaching Learning Materials required

- Board and markers
- Worksheet 2

Videos:

Details of Teaching Learning Experience

Seating Arrangement: In groups of 4-5 each

Note for the facilitator: Make an electroscope as per the activity 15.4 of NCERT book.

Lesson Beginning <u>Time:</u> 10 min <u>Purpose:</u> • Activate prior knowledge.	<u>Brainstorming:</u> • Begin the class by asking following questions: What happens during an Earthquake? • Ask the students what they know about lightning. • Collate their responses on the board.
Lesson Middle <u>Time:</u> 50 min <u>Purpose:</u> • Develop conceptual understanding	• Discuss the charging by rubbing by demonstrating activity 15.1 from the book. • Demonstrate the working of the electroscope to the students. Discuss the process of discharging and earthing. • Discuss the safety measures for lightning. • Distribute worksheet 2 to the students • Let them attempt the questions. • Discuss the answers

Class:8	Subject: Science	Topic: Some Natural Phenomena
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Lesson End <u>Time:</u> 5 min <u>Purpose:</u> Finish Up	<u>Finish Up</u> Wrap up the class by clearing any doubts.
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Class:8	Subject: Science	Topic: Some Natural Phenomena
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Worksheet 2

Skill: Comprehension

Q1. Explain the process of lightning in your own words.

Q2. Write one safety measure against lightning if you are

a. Driving your bicycle

b. Travelling in a bus

c. Playing in a park
