## Earth Science 11

# Unit 11 Worksheet

### Part 1.

- 1. Describe what an earthquake is.
- 2. What type of earthquake is most common? How many of them occur each year?
- 3. Where did the worst earthquake (for loss of life) occur? When?
- 4. What are some of the side effects of earthquakes?

### Part 2.

5. What is the major cause of earthquakes?

6. What are some of the minor causes of earthquakes?

7. Describe the elastic-rebound theory.

	Part 3 8.	. What determines the depth at which earthquakes occur?
-	9.	How deep are the quakes along the San Andreas Fault in Ca

- alifornia?
- How deep are the deepest earthquakes? 10.
- What is the actual place where the earthquake occurs called? 11.
- What is the epicentre? 12.

## Part 4.

Describe the three types of wave motion produced by earthquakes.

## Part 5.

Describe how a seismograph works. 14.

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How does the difference in arrival times of P waves and S waves allow scientists to calculate the 15. distance to the epicentre?

- Using the time-travel graph on p. 235 determine the distance to earthquakes when the arrival 16. time is a) 5 minutes, b) 7 minutes, and c) 4 minutes 30 seconds.

#### Part 7.

- How many seismograph stations are needed to determine the epicentre of an earthquake? 17.
- Describe the process used to determine the epicentre. 18.

#### Part 8.

- 19. What is meant by the magnitude of an earthquake?
- What is the most common scale used to determine magnitude? Describe how this scale works. 20.

### UNIT 11 (CH. 15) → EARTHQUAKES & PLATE TECTONICS

- 1. EARTHQUAKE
- 2. ELASTIC-REBOUND THEORY
- 3. FOCUS
- 4. EPICENTER
- 5. P-WAVES
- 6. S-WAVES
- 7. L-WAVES
- 8. SEISMOGRAPH
- 9. SEISMOGRAM
- 10.TIME-TRAVEL GRAPH
- 11, RICHTER SCALE
- 12. SEISMIC MOMENT

## Earth Science 11 Unit 11 Test A Study Review

Where is the focus?

How deep are the earthquakes along the San Andreas Fault?

How many times stronger is a magnitude 6 earthquake than a magnitude 4 earthquake?

What are S waves and how do the travel?

What is the depth of an earthquake determined by?

Are small or large earthquakes the most common?

How deep do the deepest earthquakes occur?

What is the epicenter of the earthquake?

What do the P-waves act like?

Short answer:

Describe the process used to determine the epicenter of an earthquake. (5 marks)

Describe how a seismograph works. (5 marks)