

Earth Science Worksheet

Chapter 6A – Tectonic Forces and Earthquakes

Name: _____

Date: _____

Class: _____

Part 1 – Vocabulary (Fill in the blanks)

Use the words in the word bank to complete the sentences.

Word Bank:

seismometer – earthquake – stress – strain – convergent boundary – transform boundary –
ductile – brittle – accelerometer

1. A(n) _____ is a series of low-frequency shock waves traveling through the Earth.
2. A _____ is an instrument that measures earthquake waves.
3. _____ is the force that acts on rocks and causes them to deform.
4. A change in the shape of a solid caused by stress is called _____.
5. A plate boundary where two plates move toward each other is called a _____.

6. A _____ occurs when tectonic plates slide past each other.
7. Materials that bend or stretch without breaking are called _____.
8. Materials that break easily when stressed are called _____.
9. A sensor in many computers that detects motion and shaking is called an _____.

Part 2 – Short Answer

Answer in 1–3 complete sentences.

1. How do earthquake early warning systems help people?

2. Why is it difficult to predict exactly when an earthquake will occur?

3. What is the difference between stress and strain?

4. What happens at a convergent tectonic boundary?

5. Why are brittle rocks more likely to cause earthquakes than ductile rocks?

Part 3 – Understanding the Science

Circle the correct answer.

1. Most earthquakes occur because of:

- a) Weather changes**
- b) Tectonic plate movement**
- c) Ocean tides**
- d) Human activity**

2. The most important type of stress causing earthquakes is:

- a) Compression**
- b) Tension**
- c) Shear stress**
- d) Heat stress**

3. Transform boundaries usually produce:

- a) Volcanoes
- b) Plates sliding past each other
- c) Mountains forming
- d) Plates moving apart

4. A network of computers using accelerometers can help scientists:

- a) Measure temperature
 - b) Detect earthquake shaking
 - c) Predict weather
 - d) Measure ocean currents
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Part 4 – Critical Thinking

Answer in 3–4 sentences.

- 1. The text explains that a few seconds of warning could make a difference during an earthquake.**

Describe two ways people could use those seconds to stay safe.

2. Imagine you live in a region where earthquakes are common.

What are two things your community could do to prepare?

Part 5 – Reflection

What is one new thing you learned about earthquakes from this reading?
