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 _____.**

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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?**

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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

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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

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.

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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?

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