Name_____ Date_____ Section_____

Earth Science Unit 4 The Restless Earth

Title: Activity 15 Earthquakes and Measuring Earthquake Waves

Challenge Question: Why do earthquakes happen? How are seismic waves used to study earthquakes?

Background:

- Earth's lithosphere is made up of tectonic plates that are always moving.
- Plate movement can cause changes to occur on Earth's surface.

Materials:

The Dynamic Earth book

Vocabulary: Define the following terms in your own words.

Term	Definition	Picture or Example
earthquake		
focus		
epicenter		
elastic rebound		
intensity		
seismic waves		
magnitude		
seismogram		

Procedures:

1. Read pages 238 – 235 and pages 252 – 263 in the ***Dynamic Earth*** book.
2. Do Lesson Review on page 247, questions 1 – 10.
3. Do Lesson Review on page 265, questions 1 – 11.
4. Create definitions for the Vocabulary. Answer Analysis Questions.

Data/Results: *(Write your responses to the book questions on a separate sheet of paper.)*

Analysis Questions:

1. You learned about three different types of faults in the previous lesson. How do faults relate to earthquakes?

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2. Where do earthquakes happen? Why do they happen?

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3. How do earthquakes and their locations support the theory of plate tectonics?

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4. What contributes to the motion of tectonic plates that cause earthquakes when the plates interact?

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5. How do surface waves cause damage to buildings?

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6. What is lag time? What is lag time used to determine?

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