Name _____ Date _____ Period _____

Earthquakes Introduction

Complete each of the activities to learn more about earthquakes.

Activity 1 – It's Not Your Fault

Complete the following while reading pages 181 -187 in the amazing book of knowledge (red science textbook.)

1. What is stress?

2. Complete the data table below

Compression	Tension
Description	Description
Plate Boundary	Plate Boundary

3. Complete the data table below?

Fault Name	Tectonic Boundary	Diagram (Picture)
Normal Fault		
Reverse Fault		
Strike-Slip Fault		

Activity 2 – Earthquakes and Plate Boundaries

Complete the following while reading pages 196 – 201 in the amazing textbook of knowledge (red science textbook.)

4. What is an earthquake?

5. Where do most earthquakes occur?

6. Explain the difference between plastic and elastic deformation.

7. How does elastic rebound create an earthquake?

8. Complete the data table below.

Plate Boundary	**Fault Type**	**Earthquake Characteristics (example – weak, strong, moderate, shallow, deep etc.)**

9. Describe the characteristics of the fault type that creates the largest earthquakes

10. Describe the characteristics of seismic waves in the data table below.

Type of Seismic Wave	**Description of how it functions (moves) through rocks**
P - Wave	
S - Wave	
Surface Waves	

11. How are P-waves different from S- waves?

Activity 3 – You be the Engineer Part 1

You and a friend have been hired to research, design, build, test, redesign, and retest a building that will keep families safe during an earthquake.

Part 1 – **Research**

Engineers always research information to help them with new construction. You need to research some basic information about parts of earthquake safe buildings and the movement of different seismic waves released during earthquakes to help.

Parts of earthquake safe buildings – look up 4 different things engineers incorporate into buildings to make them safe during earthquakes and record the information in the data table below. You must use approved sites from dixiemiddlescience.weebly.com for this research.

12. Fill out the data table below to show your research.

Name of part	Purpose of the part	Draw an example of the part (draw what it looks like)

13. Draw a basic 3 story house frame in the space below that incorporates all 4 engineering designs from the data table above.