ES 11 Earthquake Study Guide

1. Define the following:
2. Earthquake
3. Fold
4. Fault
5. Seismology
6. Seismograph
7. Seismogram
8. Stress
9. Plastic deformation
10. Elastic deformation
11. Elastic rebound
12. Magnitude
13. intensity
14. Identify the 3 main types of stress that can occur when enough force is applied to rock.
15. Complete the chart on seismic waves

|  |  |  |  |
| --- | --- | --- | --- |
|  | P Wave | S Wave | L Wave |
| Other names |  |  |  |
| Speed  |  |  |  |
| Travel through |  |  |  |
| Type of Motion |  |  |  |

1. Which type of seismic waves cause the most damage? Why is this so?
2. What type of ground motion causes the most damage to buildings?
3. What is needed to locate the epicenter of an earthquake?
4. What is a shadow zone? (p281) Draw a diagram illustrating.
5. What is the difference between magnitude and intensity?
6. What scales are used to assess the strength of an earthquake? What is the difference between the two?
7. What is the Gap Hypothesis?
8. What are some other predictors of earthquakes?
9. List some hazards associated with earthquakes.
10. Describe the following and how they maintain stability of a building:

|  |  |
| --- | --- |
| Device | Function |
| Damper |  |
| Cross Braces |  |
| Flexible pipes |  |
| Active Tendon System |  |
| Base Isolator |  |

1. Label the parts of the wave:

