

Locating Earthquakes

Name: _____

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Objectives:

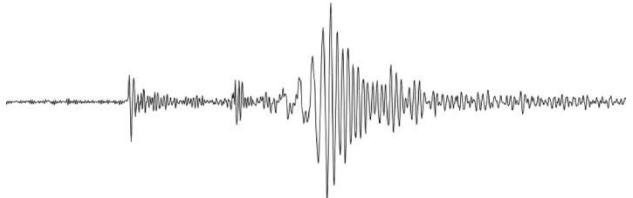
- _____
- _____

Monitoring Earthquakes:

- Focus is the _____ below the surface where the earthquake happens.
- Epicenter: location of earthquake _____.
- Seismic Waves: the _____ caused by the _____ within the earth (P, S, Surface)
- Seismograph: an instrument that _____, such as force and duration
- Seismogram: a record produced by a seismograph

Reading a Seismogram:

Locate the P-wave, S-wave, and surface waves on the seismogram



Determining Distance away from an Earthquake:

- Triangulation: the process of using _____ to determine _____.
- It takes data (seismograms) from _____ seismic station to determine the location of the _____.

Steps to finding the epicenter of an earthquake

1. Scientists use the _____ to locate the _____ of an earthquake

- Remember, the _____ is _____ and arrives first at a seismic station.

2. Every Seismograph records a _____.

This is known as the S-P interval or S-P time method.

- The farther from the earthquake epicenter, the _____.

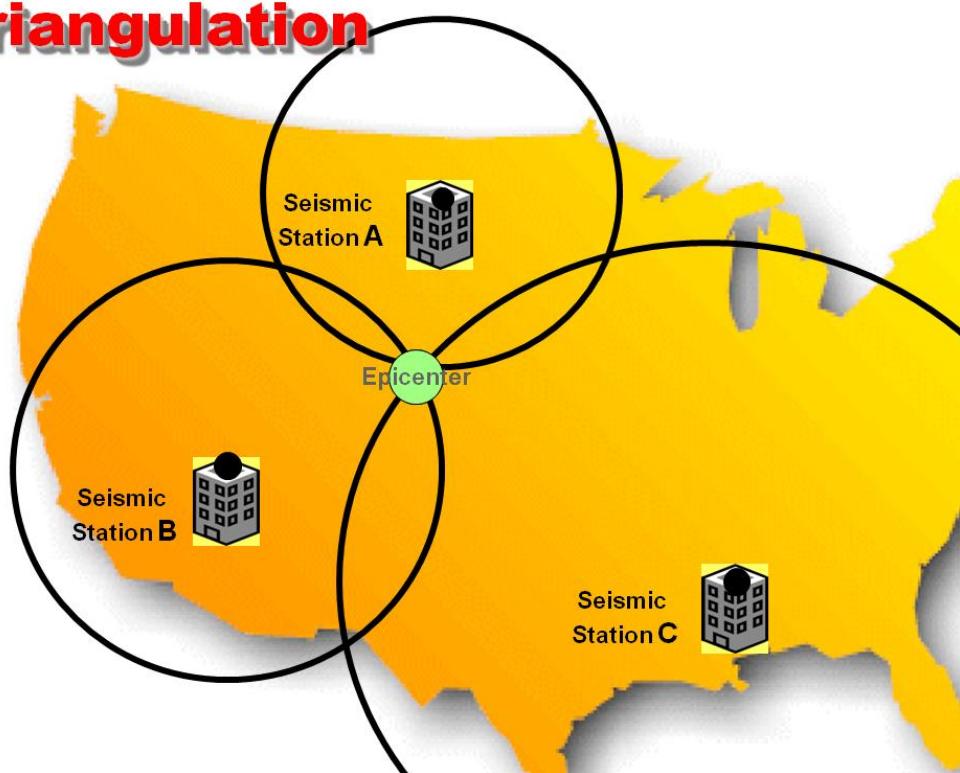
• This _____ between the _____ is used to find the distance.

3. Scientist calculate time it take the waves to travel.



4. Using the _____, scientist calculate the _____ from each city to the epicenter
- _____
5. Use the _____ to measure _____ away from the seismic station.
6. Using a compass put the point on the seismic station and draw a _____.
- We use a _____ to represent that the earthquake could happen from a distance all _____.
7. Repeat this process for the other seismic stations that recorded the earthquake
8. The point where the circles _____
is where the _____ of the earthquake is located

Triangulation



Activity:

1. The illustration below shows seismographic records made in three cities following an earthquake. These traces begin at the left and show the arrival of P waves at time zero. The second sets of waves on each record represent the arrival of S waves.

