

CH 19.3 Earthquakes

SECTION 3 Measuring and Locating Earthquakes

Consider the Essential Questions on the first page of Section 3. Skim the section and provide a brief answer for each question.

1. _____

2. _____

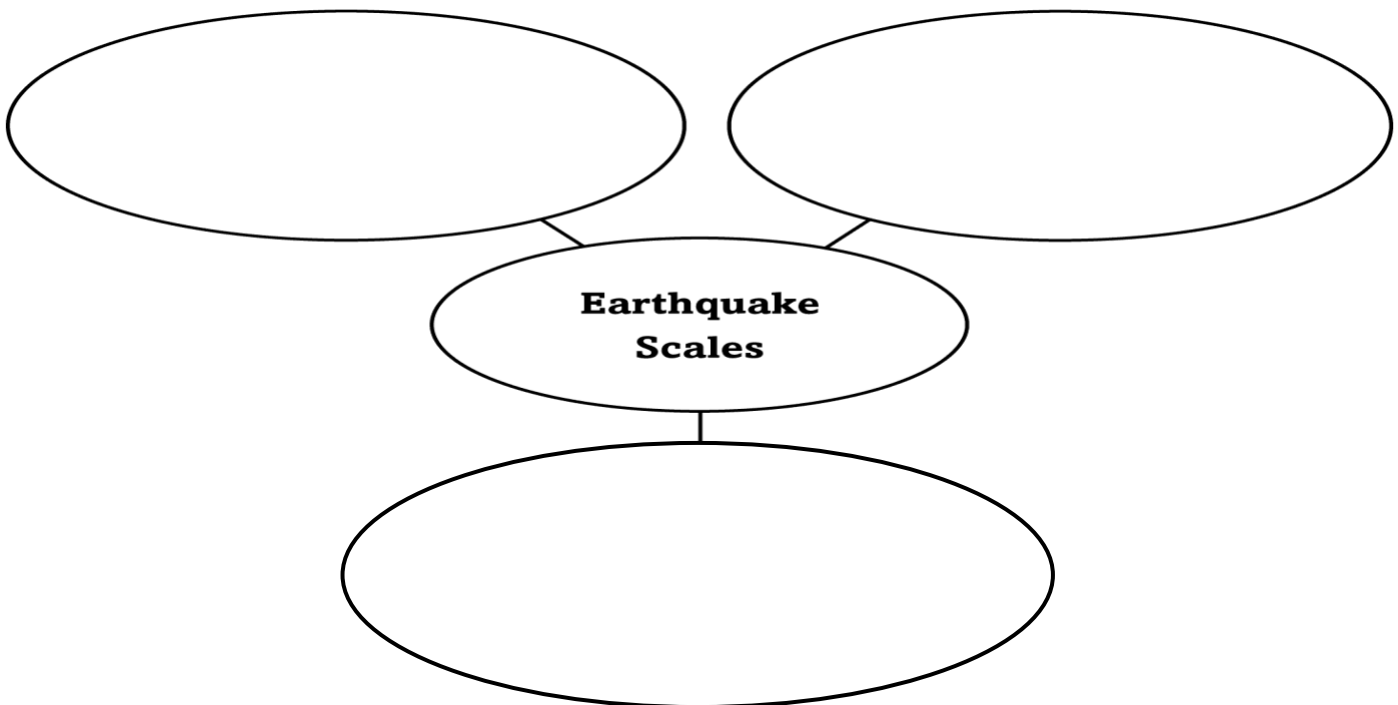
3. _____

Use the terms below to complete the following sentences.

Richter scale Amplitude Moment Magnitude Scale Magnitude Modified Mercalli scale

When an earthquake is reported on the news, reporters often refer to its _____. This is the amount of energy released during an earthquake. There is more than one way to measure it. _____ indicates the size of a seismic wave. One type of scale, the _____, measures the amount of damage from an earthquake. The _____ accounts for the magnitude, size of the fault rupture, amount of movement along the fault, and the rocks' stiffness. The _____ is based on the largest seismic waves made by an earthquake.

Differentiate between the three scales that are used to describe earth-quakes. Write the name of each scale and describe what it measures in the concept map.



Describe the difference between the magnitude and the intensity of an earthquake.

State the three ways the depth of an earthquake's focus can be classified.

1.

2.

3.

From the three classifications above, circle the depth of focus for almost all catastrophic quakes.

Consider the locations of two seismic stations as seen in Figure 17. Explain why you can't determine the exact location of an earthquake using only two seismic stations. Explain why three stations are needed to determine the location of an earthquake.

Explain how you could use a puzzle of the Earth's plates to demonstrate where most earthquakes occur in the world.
