

Name \_\_\_\_\_

## Epicenter Exploration: How Earthquake Epicenters Are Determined

### Multiple Choice Questions

1. What are seismic waves, and why are they important in determining earthquake epicenters?
  - a) Seismic waves are underground tunnels created by earthquakes.
  - b) Seismic waves are ocean waves that cause tsunamis.
  - c) Seismic waves are clues generated by earthquakes and detected by seismometers.
  - d) Seismic waves are tall waves found in the ocean.
  
2. Which type of seismic wave arrives at a seismometer first after an earthquake?
  - a) P-waves
  - b) S-waves
  - c) T-waves
  - d) R-waves
  
3. How do scientists calculate the distance from a seismometer to an earthquake's epicenter?
  - a) By measuring the depth of the earthquake's focus
  - b) By comparing the time it takes for P-waves and S-waves to arrive
  - c) By using a ruler on a map
  - d) By counting the number of seismic waves
  
4. What technique do scientists use to determine earthquake epicenters, which involves drawing circles on a map?
  - a) The Four-Circle Method
  - b) The Two-Circle Method
  - c) The Three-Circle Method
  - d) The Square Method
  
5. Why is it important to use multiple seismometers to determine earthquake epicenters?
  - a) It makes the process more complicated.
  - b) It helps reduce earthquake magnitude.
  - c) It allows scientists to calculate the distance more accurately.
  - d) It increases the likelihood of an earthquake occurring.

