

## Additional Teaching Materials

This page contains links to activities that complement the **Animation of the Month: *Travel-time Curves: Where do seismic travel-time curves come from?*** Activities range from basic to advanced.

### Activities

#### [How are Earthquakes Located?](#)

**Type**—One page informational  
**Level**—Basic  
**Materials**—None  
**Objectives**—Introduce earthquake location technique

#### [Whose Fault Is It Anyway? Wave propagation](#)

**Type**—Group (wakeup) activity  
**Level**—Basic  
**Materials**—None. Large class needed.  
**Objectives**—Understanding how P & S waves help determine the hypocenters.

#### [Walk-Run Activity: An S and P Wave Travel Time Simulation](#)

**Type**—Group activity  
**Level**—Basic  
**Materials**—None  
**Objectives**—Model how earthquake waves travel through the Earth at different speeds  
Construct and utilize a graph to characterize the relationship between distance and time of travel of seismic waves (a travel time-curve).  
Locate the epicenter of a simulated earthquake by triangulation

#### [Earthquake waves: the 'find the earthquake' team challenge](#)

**Type**—Team Activity  
**Level**—Basic  
**Materials**—Compass  
**Objectives**—Identify seismic arrivals  
Estimate distance to event source  
Locate an earthquake by triangulation

#### [Virtual Courseware: Earthquake](#)

**Type**—Online activity  
**Level**—Intermediate  
**Materials**—Internet connection, printer  
**Objectives**— Determine the location of an earthquake's epicenter  
Estimate the Richter magnitude of an earthquake  
Construct a travel-time graph

#### [EqLocate Tutorial](#)

**Type**—Activity  
**Level**—Intermediate  
**Materials**—Internet connection, EqLocate software, Pre-selected data  
**Objectives**—Understand the important concepts for earthquake location  
Identify the first S and P waves on a three-component seismogram  
Develop skill in locating earthquakes

#### [Triangulation with Real Seismic Data—A](#)

#### [Triangulation with Real Seismic Data—B](#)

**Type**—Activity  
**Level**—Intermediate  
**Materials**—Compass  
**Objectives**—Identify seismic arrivals  
Estimate distance to earthquake source  
Locate an earthquake by triangulation

#### [Earthquake Location Powerpoint](#)

Three slides to use in conjunction with the triangulation activities.

#### [Single Station Event Location —Mine Blast!](#)

**Type**—Activity  
**Level**—Advanced  
**Materials**—Compass  
**Objectives**—Identify seismic arrivals  
Estimate distance to event source  
Use wave characteristics to determine orientation of event arrival

#### [Earthquake Technique Fights Crime](#)

**Type:** Fact Sheet—informational