

BrainPOP Earthquake Game - Student Activity

(www.brainpop.com/games/earthquakegame/)

Introduction:

The Earthquake Game is a simulation that challenges you to find the epicentre of an earthquake and identify when and how powerfully it will hit an imaginary city. Through play, you explore and deepen your understanding of triangulation and primary and secondary shockwaves.



Learning Goals:

1. To understand some of the key terminology associated with earthquakes.
2. To apply the concept of “triangulation” to locate an earthquake’s epicentre.
3. To determine the distance of an earthquake from a location by measuring the delay between primary and secondary shock waves.

Before the Game:

1. Discuss the following:
 - a. What is an earthquake?
 - b. What causes an earthquake?
 - c. What are some of the effects of earthquakes?
 - d. Can you name and describe any recent earthquakes?
2. Watch the following two short videos and complete the table below (do additional research if necessary):
 - a. “Earthquakes 101” from National Geographic (3 min): <https://goo.gl/JyZERg>
 - b. “Earthquake Epicenter Triangulation” (4 min): <https://goo.gl/wG9yLR>

During the Game:

1. Go to www.brainpop.com/games/earthquakegame/ and read the short intro comic. Work your way through the various stages of the tutorial:



2. Click on the “Game” tile and record how many turns it took you to find the epicentre: _____. Then click on the “Free” tile and play at least 12 more times:(the epicentre is randomized). Record your “turns” in the table below:



Attempt	Number of turns to find epicentre	Attempt	Number of turns to find epicentre	Attempt	Number of turns to find epicentre
1		5		9	
2		6		10	
3		7		11	
4		8		12	

After the Game:

1. Based on your experience with the game and additional research if necessary, write proper definitions for the following:

Word	Definition
Focus	
Epicentre	
Seismic Wave	
Seismograph	
Primary (P) Wave	
Secondary (S) Wave	

