

# [Essay on earthquakes and earthquake predictions](https://assignbuster.com/essay-on-earthquakes-and-earthquake-predictions/)

[](https://assignbuster.com/)[Business](https://assignbuster.com/essay-subjects/business/), [Management](https://assignbuster.com/essay-subjects/business/management/)

\n[toc title="Table of Contents"]\n

\n \t

1. [How is the earthquake predicted?](#how-is-the-earthquake-predicted) \n \t
2. [How to minimize the damage](#how-to-minimize-the-damage) \n \t
3. [References:](#references) \n

\n[/toc]\n \n

Way back in the medieval period the tribal’s presumed that earthquakes were considered to be god’s anger which was caused due to his dissatisfaction. In the current times, however, the real explanation behind the cause of earthquakes has been found and today scientists understand the cause earthquakes and know how to deal with it. Scientists use different kinds of equipments to predict earthquake by detecting the seismic activity before it happens. The predictions might be based on various data – for example, research has proved that just before an earthquake a number of male toads abandon the place along with their family just before the earthquake. Thus, toads are believed to detect signs that an earthquake is about to happen.   
But, of course, there are more " scientific" means – for example, piece of equipment known as the seismograph that can record movement of plates predicting the place where a major earthquake is likely to occur. There is also a way to predict the area where the earthquake might take place by looking at the history of the region, as earthquakes tend to occur several times at the same location. Those regions are known as an " earthquake prone zone" – examples include the area of Nagasaki in Japan and the Fiji islands. Usually a continuous pressure builds up in these zones because of the climate, type of underground soil and temperature variation.

## How is the earthquake predicted?

Generally, if a region experiences an earthquake of a magnitude of 7 or more (Richter scale), scientists conclude that there probably will be another one in the next 50 years. Sometimes the predictions may not be that accurate as they involve a lot of scientific calculations, but most of them are true.   
While scientists use a large amount of data from various seismographs connected to each other, there is a more reliable and up-to-date device which can be used to detect the advent of earthquakes: the satellite systems and lasers. The data that is received from those devices gives scientists a more clear indication of the place and time where an earthquake might happen, issuing a warning and a preparation sequence. It has to be noted, though, that the exact time and date is not always possible to predict, yet the regions can be clearly specified and disaster management teams can prepare accordingly.   
The goal of predicting an earthquake is to issue a warning to the region to be prepared and manage the situation accordingly. The Geological survey of USA conducts thorough researches based on recent earthquakes, the earthquake prone zones, and looks for different the ways to solve the problem. The most important goal of earthquake research is to augment the dependability of earthquake likelihood estimate. Understanding an earthquake and predicting one is definitely of fundamental importance to a nation as it might help immensely in minimizing the damage that occurs as a result of this natural disaster.

## How to minimize the damage

Prediction of an earthquake at the right time is a " tricky" thing. Here are some ways that might help us to deal with earthquakes:   
- Build infrastructures in areas which are not prone to earthquakes and set limits on the building heights.   
- Use earthquake risk maps to control the use of earthquake prone zones for as living areas.   
- Use materials which can endure the tremors caused due to an earthquake of a low Richter scale.   
- Use fireproof materials in earthquake-prone zones.   
- Invest in seismometers and satellite-based system to detect earthquakes.   
- Arrange a good disaster management team who would help to evacuate the place in a short span of time.   
Remember, although this natural disaster cannot be controlled, it can be detected in time and precautions can be taken to minimize the damage caused to property and people.

## References:

The 10 biggest earthquakes in history, Australian Geographic, March 14, 2011.   
Ludwin, Ruth. Predicting Earthquakes, United States Geological Survey, January 11, 2013   
Repeating Earthquakes. United States Geological Survey. January 29, 2009.   
Donald Hyndman, David Hyndman (2009). " Chapter 3: Earthquakes and their causes". Natural Hazards and Disasters. Brooks/Cole: Cengage Learning.   
Tamrazyan, Gurgen P. (1967). " Tide-forming forces and earthquakes". Icarus.   
Scholz, Christopher H. (2002). " The Mechanics of earthquakes and faulting". Cambridge Univ. Pres