



**Australian Government**  
**Attorney-General's Department**  
Emergency Management Australia

## EMA Schools Education

# TSUNAMI INFORMATION



## Tsunami Activity Sheet No. 7

### Future Tsunamis?

## 7. Future tsunamis

Given the Earth's geology and activity, there is no doubt that tsunamis will occur again in the future. Records show that they occur quite frequently. The most frequent, and easiest to predict, are those located in areas that follow regular cycles. It is more difficult to predict tsunamis that occur irregularly and where they are not usually expected.

Tsunami prediction is very difficult and computer modelling is often used to try and determine where the tsunami might occur and how large it might be. Predicting when the event may occur is extremely difficult. By monitoring active earthquake and volcanic areas, scientists can make these predictions.

Some scientists believe that an asteroid might impact with the Earth in about 800 years, creating a giant tsunami.

**Read** about the asteroid prediction.

<http://www.abc.net.au/catalyst/stories/s708821.htm>

1. When is it believed that an asteroid last hit the Wollongong area? Describe the evidence for this occurrence.
2. How powerful was the resultant tsunami? Describe the evidence for this.
3. How likely is another event such as this occurring?

Scientists have made another tsunami prediction regarding an active volcano in the **Canary Islands**.

<http://www.earthfiles.com/news/news.cfm?ID=851&category=Science>

1. Describe the location of the Canary Islands. Describe the size and shape of the Cumbre Vieja volcano.
2. Outline the activity of this volcano in the past. Why do scientists think that part of this volcano is unstable?
3. Draw a timeline and sketch maps to show what the computer modelling predicts might happen if the western side of the volcano erupts.
4. On your map, label the countries that would be affected by the predicted tsunami.
5. How long will it take for the tsunami to reach various coastlines? Record this on your map.
6. Study a population map of the areas that might be affected. Are they densely populated? Explain the importance of this factor?
7. When do scientists predict this event will take place?
8. One scientist has stated that "it is not a matter of if it will happen, but when". Describe how people might become aware of, and prepared for, this event.