

Tsunamis

During storms or hurricanes, it is the wind that produces waves on the surface of the water. On the other hand, during a tsunami, the movement comes from the ocean floor, in general because of a major underwater earthquake. A tsunami takes the form of a succession of waves which advance, at the surface, at the speed of a plane: between 500 and 900 km/h. At sea, the people in boats do not feel anything at all, whereas the waves, when arriving at the coast, will cause extensive damage. Upon approaching the coast, the waves are slowed down to 30 km/h and gain height. Depending on the size of the tsunami, this height generally varies between 5m and 10m, but it can reach up to between 30m and 40 m.

Giant waves, or mega-tsunamis, even more devastating than those created by underwater earthquakes, can be caused by some large landslides, as for example the fall of a cliff or part of a volcano or a mountain. Thus, a wave of 500 m high was created during the collapse of a cliff in bay of Lituya, in Alaska, in July 1958.

1. Using the document, give three possible causes for the formation of a wave.

- a. ....
- b. ....
- c. ....

Item 1	0	1	9
--------	---	---	---

2. For each of these cases, imagine an experiment which can show what is at the origin of the formation of waves.  
Describe and produce a diagram of each of these experiments.

Item 2	0	1	9
Item 3	0	1	9

	Description	Diagram
a		
b		
c		