

## TOPIC: TSUNAMIS

### Lesson Notes

**Directions: Read the notes below and highlight key points.**

*The word 'Tsunami' is derived from Japan. It means 'harbour wave'. One of the most common causes of a tsunami is an earthquake caused by the shifting of tectonic plates on the ocean floor. The earthquake causes a large amount of water to be displaced very quickly. This triggers a series of waves to move through deep water. The waves increase in size once they reach the shallow water near the shore. A tsunami can move rapidly once on land and can have the strength to destroy buildings and carry with it everything in its wake. The waves can pick up debris such as trees, pieces of buildings and vehicles which add to the devastation.*

*Some warning signs that a tsunami might be coming include a sudden rise in sea level, the sea retreating from the beach or unusual noises coming from the sea (a loud rumbling sound). Alongside these natural signals, many areas susceptible to tsunamis have official warning systems. These may include signage near the coast, sirens and media announcements. It is important to know the process to follow if a tsunami occurs in your area. Having access to emergency supplies and getting to higher ground are the usual recommended course of actions. Some areas have evacuation maps telling you where you need to go. If you cannot escape a tsunami, get as high up as possible in a tree or building or try to hold onto something buoyant until help arrives.*



## **TSUNAMI FACTS**

- *Around 80% of tsunamis occur in the Pacific Ocean.*
- *The first wave of a tsunami is not usually the largest.*
- *Tsunamis can travel at a similar speed to a jet plane.*
- *The time of a tsunami reaching land can be predicted fairly accurately using calculations involving the depth of the water, distance from the land and the time of the triggering event,*
- *The **area of inundation** is the farthest distance inland that is reached by tsunami waters.*
- *The highest point vertically, that the waves reach is called the **run-up**.*
- *The series of waves forming a tsunami are called a **wave train**.*
- *A **seiche** is similar to a tsunami but occurs in enclosed bodies of water such as lakes. They are smaller and less devastating than tsunamis and are normally triggered by wind.*