How a Tsunami Travels



Read the passage. Then answer the questions in full sentences.

Name _____ Date _____

A tsunami is a series of extremely long waves in the ocean. The word comes from Japanese: “tsu” means harbor, and “name” means wave. It is incorrect to call a tsunami a tidal wave, because tsunamis are not related to tides. Tides come from the pull of the Sun and Moon.

Most tsunamis start with a large earthquake below or near the ocean floor. When the floor suddenly rises or drops, the water above it moves too. Landslides, volcanoes and even asteroids can also cause a tsunami. The waves then spread out in all directions.

In the deep ocean, a tsunami can move as fast as a jet plane, over 500 mph. It can cross an entire ocean in less than a day. Out there, its waves are rarely more than three feet high, so they are barely noticeable. When the waves enter shallow water near land, they slow to the speed of a car, about 20 or 30 mph. They also grow taller.

At the coast, a tsunami may look like a fast-rising flood or a wall of water. Sometimes the water suddenly pulls back first, showing the ocean floor, reefs and fish. A loud roar from the ocean, like a train or an airplane, can be another warning. Anyone on a beach who feels an earthquake should move quickly to high ground or inland, away from the water.

1. **What is the most common way a tsunami starts?**

2. **Out in the deep ocean, tsunami waves are “barely noticeable.” What does this mean, and which words help you tell?**

3. **How is a tsunami in the deep ocean different from a tsunami in shallow water near land?**

4. **Why do you think people on a beach should move to high ground as soon as they feel an earthquake, without waiting for more signs?**

Answer key

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1. What is the most common way a tsunami starts?
   With a large earthquake below or near the ocean floor.

2. Out in the deep ocean, tsunami waves are “barely noticeable.” What does this mean, and which words help you tell?
   They are very hard to see or notice. The clue is that the waves are “rarely more than three feet high.”

3. How is a tsunami in the deep ocean different from a tsunami in shallow water near land?
   In the deep ocean it moves over 500 mph and its waves are rarely more than three feet high. Near land it slows to about 20 or 30 mph and grows taller.

4. Why do you think people on a beach should move to high ground as soon as they feel an earthquake, without waiting for more signs?
   Sample answer: an earthquake can start a tsunami, and the waves can arrive fast as a flood or a wall of water, so there may not be time to wait.