

Tsunami question and answer key

- 1. Is a tsunami the same as a tidal wave? No Is "tidal wave" an accurate description? No Why, or why not?** *Waves created by a tsunami are due to an earthquake, NOT by tides (Source: [FEMA](#))*
- 2. What does a tsunami look like as it travels across the sea or ocean?** *It may be a swell that is hardly noticeable, like the ripples that occur after throwing a rock in water (Source: [FEMA](#))*
- 3. What does a tsunami look like when it reaches shore? Does it look like a typical breaker, only much larger?** *(Usually not)*
- 4. How fast and how far can a tsunami travel from its source?** *up to 600 mph in deep water (Source: [NOAA](#)) and 6000 miles or more – effects of the 2011 Japanese tsunami reached Northern California (Source: [NOAA](#))*
- 5. Are tsunamis predictable? Are there reliable warning systems to alert coastal peoples about an impending tsunami?** *Yes, warning buoys that relay signals to a satellite, then to a warning center (Source: [NOAA](#))*
- 6. How high might a tsunami be when it hits land?** *up to 100 feet tall (Source: [FEMA](#))*
- 7. What causes a tsunami?** *Tectonic plates slip and cause underwater earthquakes, particularly in the Ring of Fire. (Source: [USGS](#))*
- 8. Where are tsunamis most common and why are they most common there?** *In the Pacific and Indian Oceans, Philippine and South China Seas due to underwater earthquakes from shifting plate tectonics (Source: [USGS](#))*
- 9. Where can tsunamis occur in the United States and why in these locations?** *West coast: Hawaii, California, Oregon, Washington, Alaska; proximity to the ocean and “Ring of Fire” (Source: [USGS](#)) Do tsunamis occur in Montana? No Why or why not? Not near the ocean*
- 10. What is an earthquake? A ground shaking, rolling caused by a sudden movement of rock or slippage of tectonic plates in the Earth’s crust Where do they most occur in the United States?** *West coast: Hawaii, California, Oregon, Washington, Alaska*

11. What is a volcano/volcanic eruption? *A mountain with a hole in the top or side that sometimes sends out rocks, ash, lava, etc., in a sudden explosion; it mostly occurs on the West coast, Hawaii and Alaska* **Are there any active or potentially active volcanoes in the United States? Yes If so, where are they located?** *West coast: Hawaii, California, Oregon, Washington, Alaska (Source: [USGS](#))*

12. Name 5 or more other types of severe weather or natural disasters and where they mostly occur in the United States. (Source: [NOAA](#), [FEMA](#))

- **flood:** a large amount of water covering an area of land that is usually dry when heavy rains cause rivers overflow, ocean waves come onshore, snow melts too fast or when dams or levees break; it can occur anywhere in the United States.
- **hurricane:** an extremely large, powerful, and destructive storm with very strong winds that occurs especially in the *western part of the Atlantic Ocean, Gulf of Mexico and eastern Pacific Ocean*.
- **thunderstorm:** typically formed from warm, humid conditions that produce heavy rain, it always produce lightning; it can occur anywhere in the United States.
- **typhoon:** similar to a hurricane, it is an extremely large, powerful, and destructive storm, but occurs especially in the region of the *Philippine Sea, South China Sea or Indian Ocean*. It does not occur in the United States.
- **blizzard:** Heavy snow and strong winds will produce a blinding snow, near zero visibility, deep drifts and life-threatening wind chill; it occurs in parts of the United States with cold climates (Northeast, Midwest, Northwest).
- **wildfire:** sometimes started by lightning or by humans, they occur where there are forests, prairies or wooded areas; it typically occurs in parts of the United States that are dry (ex. Southwest).
- **tornado:** a rotating, funnel-shaped cloud that extends from a thunderstorm to the ground with whirling winds that can reach 300 miles per hour. Every state is at some risk from this hazard, but they mostly occur in the part of the United States called "[Tornado Alley](#)".
- **drought:** a period of unusually persistent dry weather that persists long enough to cause serious problems such as crop damage and/or water supply shortages; it can occur anywhere in the United States.

13. Have you or anyone you know experienced a tsunami or type of severe weather/natural disaster? If so, how did it affect your life? How did it affect your community? If not, create a disaster plan for your family.