

A tsunami - Key

- a. *Who did the Potidaea's believe saved them from the attackers in 479 BC?*

The wrath of Poseidon.

- b. *What did really save them?*

A tsunami

- c. *Tsunamis are commonly known as tidal waves. Are they related to tidal activity? Explain.*

Tsunamis are not related to tidal activity. Tidal activity is caused by the gravitational forces of the sun and moon. Tsunamis are just larger versions of regular waves.

- d. *Where does the energy come from to create normal ocean waves?*

From wind. Wind only touches the surface of the water, thus the size and speed of the waves is limited.

- e. *What about the energy creating a tsunami?*

Energy originating under water: a volcanic eruption, a submarine landslide or an earthquake on the ocean floor.

- f. *How fast can a tsunami move?*

Over 500 m/hr

- g. *What is wave shoaling?*

**Less amount of water near the shore compresses large amount of energy.
Speed reduces, height rises.**

h. How could you protect yourself against tsunamis?

Seawalls – Floodgates – Channels to divert the water

i. What happened in 2001 at Fukushima, Japan?

A tsunami broke through the seawalls which resulted in a nuclear disaster and killed over 18000 people.