

Topic Fact Sheet - Earthquakes,

Volcanoes and Tsunamis

Knowledge Organiser

Earthquakes

- Earthquakes usually occur on the edges of large sections of the Earth's crust called **tectonic plates**. These plates slowly move over a long period of time
- Generally before and after a large earthquake there will be smaller earthquakes. The ones that happen before are called **foreshocks**. The ones that happen after are called **aftershocks**.
- To tell the strength of an earthquake scientists use a scale called the **Moment Magnitude Scale** or **MMS** (it used to be called the Richter scale). The larger the number on the **MMS scale**, the larger the earthquake. You usually won't even notice an earthquake unless it measures at least a 3 on the MMS scale. Here are some examples of what may happen depending on the scale:



- 4.0 - Could shake your house as if a large truck were passing close by. Some people may not notice.
- 6.0 - Stuff will fall off shelves. Walls in some houses may crack and windows break. Pretty much everyone near the center will feel this one.
- 7.0 - Weaker buildings will collapse and cracks will occur in bridges and on the street.
- 8.0 - Many buildings and bridges will fall. Large cracks in the earth.
- 9.0 and up - Whole cities flattened and large-scale damage.



Volcanoes

- A volcano is an opening in the Earth's surface.
- Volcanoes are often found at meeting points of "tectonic plates". These plates are pieces of the Earth's surface that fit together just like a jigsaw puzzle.
- Volcanoes are classified as active, dormant or extinct
- Volcanoes can be a variety of shapes. - there are two main types - composite volcanoes, which are cone-shaped with steep slopes, and shield volcanoes, which are wide with gentle slopes.
- Magma and lava are two different things! Magma is the name given to hot liquid rock *inside* a volcano. Once it leaves the volcano, it's known as lava
- The world's largest active volcano is Mauna Loa in Hawaii



Tsunamis

- A tsunami (soo-NAH-mee) is one of the world's most powerful and destructive natural forces
- The word tsunami means "Harbour wave".



- About four out of five tsunamis happen within the **Ring Of Fire**, a zone in the Pacific Ocean where earthquakes and volcanic eruptions frequently take place.

