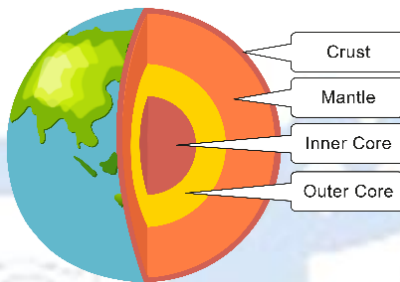




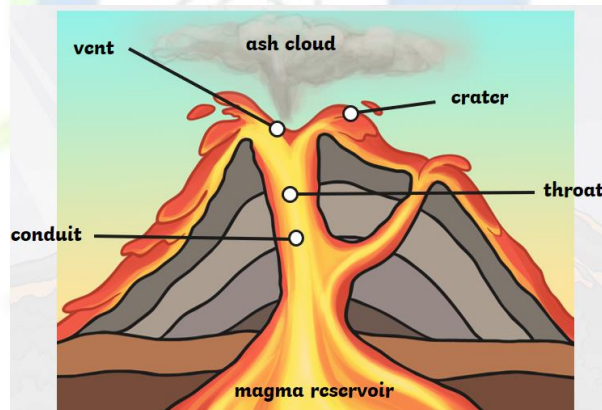
What should I already know?

- Italy is in Europe. Pompeii is a Roman city buried under ash from a volcano.
- There are igneous, sedimentary and metamorphic rocks.
- There is physical and human geography
- The names/locations of the seven continents – Africa, South America, North America, Europe, Asia, Oceania, Antarctica



Earthquakes

- An earthquake is a sudden violent shaking of the ground, typically causing great destruction.
- Earthquakes usually occur on the edges of large sections of the Earth's crust called tectonic plates. They happen when two plates suddenly slip and a fault occurs. A fault is a crack or fracture in the Earth's surface.
- Earthquakes can cause huge waves in the ocean called tsunamis. Scientists use seismic waves to measure how big an earthquake is.
- They use a device called a seismograph to measure the size of the waves/magnitude. The magnitude is measured using the Richter Scale.
- The largest earthquake ever recorded in the world was in Chile in 1960. It measured a 9.6 on the Richter Scale



Technical vocabulary

crust	the outer layer of Earth. It is about 18 miles thick. It is the part we live on.
mantle	Underneath the plates is thick, soft, hot flowing rock (magma) called the mantle.
core	The inner layer of the Earth.
Tectonic plates	Earth's outer layer is made up of large, moving pieces called plates. All of Earth's land and water sit on these plates. The plates are made of solid rock.
convection currents	Convection Currents in the mantle mean that the crust moves.
magma	Hot fluid or semi-fluid material below or within the earth's crust from which lava and other igneous rock is formed on cooling.
volcano	An opening in the Earth's crust from which lava, ash, and hot gases flow or are ejected during an eruption. Usually a cone shaped mountain; formed by a layers of built up magma over time.
fault	A fault is a crack or fracture in the Earth's surface
earthquake	A sudden violent shaking of the ground, typically causing great destruction, as a result of movements within the earth's crust or volcanic action.
continental drift	The hypothesis that the continents have moved over time relative to each other.
friction	the resistance created when one surface rubs against another.
Richter scale	A scale used to measure the size of an earthquake
tsunami	Series of waves generated from an underwater earthquake

Recent Volcano disruption

Eyjafjallajokull is a volcano located in Iceland, which erupted several times in 2010. The ash cloud it created caused flights to be cancelled around Europe for 39 days. This led to: events being postponed, issues with importing food and materials. Local water supplies were contaminated and flooding was caused as the surrounding glacier melted.

Mauna Loa in Hawaii is the largest active volcano.

Tectonic plates

- The plates move 1-10cm each year.
- Alfred Wegener - These continents look like they "fit" together. They also have similar rock patterns and fossil records. These two pieces of evidence led me to believe that there was once a single land mass. This is my TECTONIC THEORY.



Ring of Fire

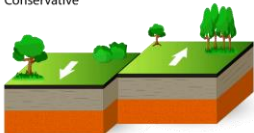
The Ring of Fire is a 25,000 mile line of volcanoes, tremors and earthquakes. The Ring of Fire contains 75% of the world's volcanoes. The Ring of Fire contains 90% of the world's earthquakes. The Ring of Fire is around the edge of the Pacific Ocean. The Mariana Trench is the deepest known trench in the ocean. Challenger Deep is the deepest known part of the ocean.

Types of volcanoes

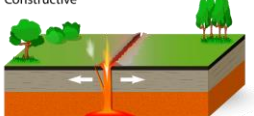
- Active - eruptions can be anytime and often.
- Dormant - has been a while since it has erupted, but could at anytime.
- Extinct, meaning it hasn't erupted in a very long, long time so it probably won't ever again.

PLATE MOVEMENT

Conservative



Constructive



Destructive



Constructive

Small earthquakes and shield volcanoes

Destructive

Big earthquakes and big volcanoes

Conservative

Big earthquakes