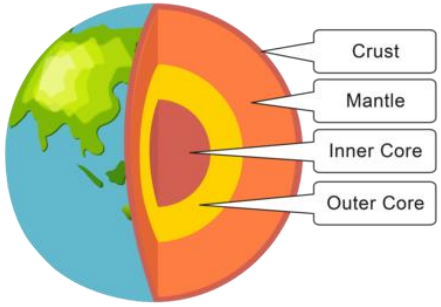
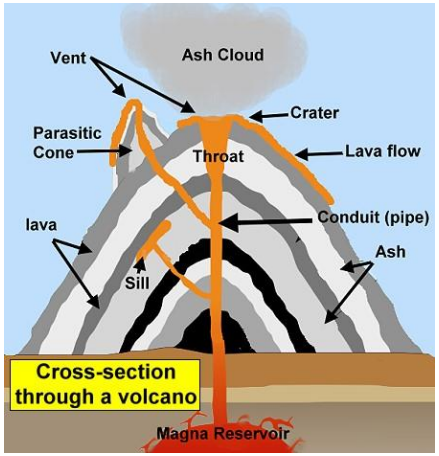
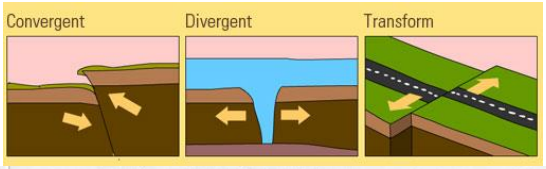
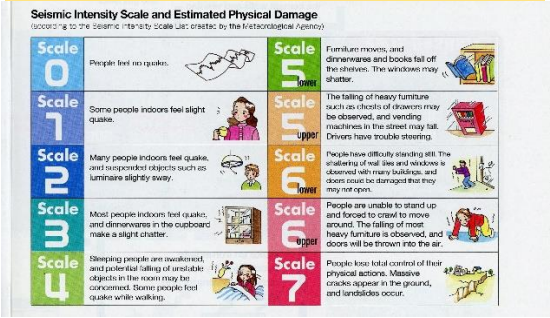
Describe and understand the key aspects of volcanoes and earthquakes.

Key Vocabulary:	
Core	The centre of our planet, made of the inner (solid, 6100°C) and outer (liquid, 4400°C) cores.
Mantle	The thickest layer of Earth, between the core and crust. It moves very , very slowly.
Crust	The solid outer layer of Earth, that we live on.
Tectonic plate	Large, jigsaw-like pieces of the Earth's crust. There are 7 tectonic plates.
Magma	Molten rock, under the Earth's crust
Magma chamber	A large pool of magma under the Earth's surface, under high pressure..
Volcano	A break in the planet's crust, where magma, gases and ash can escape the magma chamber
Eruption	. The explosion of steam and lava from a volcano.
Lava	Molten rock, that reaches and is expelled from, the Earth's surface.
Pyroclastic flow	A cloud of super-heated gas, ash and steam that travels away from the volcano at speeds between 100 and 700 kmh
Ash	A mixture of fine rock, glass and mineral particles expelled from a volcano.
Active	A volcano that has had at least one eruption in the past 10,000 years. It may be erupting, or dormant.









Key Knowledge:
Volcanoes occur when molten magma and gases under pressure escape through the Earth's surface. Hot steam, ash, rocks and gases are ejected from the top of the volcano in a pyroclastic cloud. A bowl-shaped crater is left behind. Lava flows from the volcano and cools, forming a new layer of hard rock. With each eruption, the volcano grows.
The "Ring of Fire" is a chain of volcanoes and earthquakes that occur along the tectonic plate boundaries in the Pacific ocean.
Despite the danger of living near one, volcanoes produce very fertile soil, suitable for farming.
Earthquakes occur when tectonic plates collide, pull away or slide against each other. The Earth's crust ruptures along these weak points, called fault lines. Energy is released in seismic waves and the ground shakes, which can cause great destruction and loss of life.
Lots of earthquakes happen every day, but we don't hear of them as there is little destruction. Several hundred earthquakes happen in the UK every year, but are so faint we don't feel them!
Volcanoes and Earthquakes can have a serious effect on land and people: Buildings can be destroyed. People lose their lives. Volcanic gases are poisonous and ash can destroy crops. Lava flow can cause fires. Dust clouds from volcanoes can stay in the atmosphere for a long time, and affect weather patterns. Air travel is dangerous through volcanic clouds.
The San Andreas Fault is a fault line nearly 1,300 km long in California. It is considered dangerous as there are many towns and cities nearby.
Volcanoes are named after the Roman god of fire and forging.

Dormant	A volcano that is not erupting, but is due to erupt again.		Famous volcanoes: Krakatoa – most destructive volcano in history, currently active. Vesuvius – buried the city of Pompeii, very active but currently in a dormant phase. Yellowstone – a “supervolcano” in North America, currently in a dormant phase. Etna – The highest in Europe and currently active. Fuji – The highest mountain in Japan, currently dormant. Kilimanjaro – The highest mountain in Africa, currently dormant.
Extinct	A volcano that has not erupted for over 10,000 years and not expected to again. (Ben Nevis/Edinburgh Castle)		
Crater	A bowl shaped depression at the top of a volcano.		
Earthquake	Vibrations of the Earth’s crust that release energy in seismic waves.		
Fault	A break in the Earth’s crust, where tectonic plates meet.		
Seismograph	An instrument that can measure the strength of seismic waves.		
Richter scale	A numbered scale, used to tell the power of an earthquake.		
Epicentre	The point on the Earth’s surface, directly above the centre of an earthquake.		
Tsunami	A destructive series of waves caused by earthquakes or volcanic eruptions in or near the ocean.		