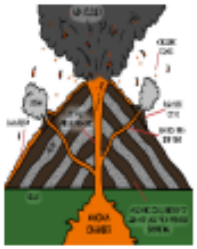
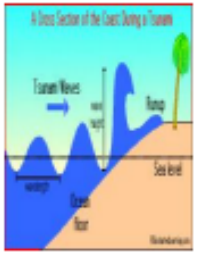
Bishop Bronescombe C of E Primary School

Year 3/4 Extreme Earth

Key Information

How are volcanoes formed?	• Magma rises through cracks or weaknesses in the Earth's crust. • Pressure builds up in the Earth. • When this pressure is released, e.g. as a result of plate movement, magma explodes to the surgace causing a volcanic eruption. • The lava from the eruption cools to form new crust. • Over time, after several eruptions, the rock build up and a volcano forms.	
What causes an earthquake?	• An earthquake is the shaking and vibration of the Earth's Crust due to the movement of the Earth's plate (plate tectonics). • Earthquakes can happen along any type of plate boundary. • Earthquakes occur when tension is released from inside the crust. • Plates do not always move smoothly alongside each other and sometimes get stuck. When this happens pressure builds up. • When this pressure is eventually released, an earthquake tends to occur.	
What causes a tsunami?	• A tsunami is a giant wave caused by a huge earthquake under the ocean. • The earthquake causes a large amount of water to be displaced very quickly. • A series of waves travels through the deep water. • As the waves travel through shallower water near the land, they get bigger.	
How do tornadoes form?	• Tornadoes form when warm air rises up from near the ground into big cumulonimbus (thunderstorm) clouds. • The winds high up near the tops of the storm clouds start rotating. • The rotating air is called a vortex. • More air flows in along the ground from all directions and the vortex moves downwards and becomes more narrow. • Funnel clouds form and develop into tornadoes. • You can see tornadoes because of the water droplets and dust caught up in them.	

Key Vocabulary

Spelling	Definition
Volcano	A vent in the Earth's surface from which lava and gases pour during an eruption.
Earthquake	When tectonic plates rub together, the movement forces waves of energy to come to the earth's surface. This causes tremors and shakes – and this is what causes earthquakes.
Tectonic Plates	The earth is made up of huge pieces of flat rock called tectonic plates.
Magma	Molten (liquid) rock beneath the earth's surface.
Lava	Molten rock flowing from the vent of a volcano during an eruption.
Eruption	The name of the process in which solids, liquids or gases are expelled through a vent in the earth's surface.
Earth's Crust	The Earth's surface is covered by its thinnest layer, the crust.
Epicentre	An earthquake epicentre is the point on the Earth's surface directly above the earthquake focus.
Tsunami	An earthquake that occurs at the bottom of the sea that can push water upwards and create massive waves.
Magnitude	A measure of the energy of an earthquake, measured on the Richter scale.
Tremors	A vibration caused by slippage of the Earth's crust at a fault, especially before or after a major earthquake.