

Video summary	Before watching	While watching
<p>This video explores what a volcano is and what causes volcanic eruptions, focusing on eruptions in the Canary Islands, the Democratic Republic of the Congo and Iceland. All of which had very different impacts.</p> <p>We investigate the different plate boundaries at which volcanic eruptions occur as well as 'hot spots', such as the Hawaii.</p> <p>Through the study of three volcanic eruptions, students will see how the impact of volcanic eruptions differs depending on location, lava flow, population density and whether there is a glacier on top of the volcano.</p>	<p>Ask students to recap on the causes of earthquakes and tsunamis. This is a good opportunity to revisit the different types of plate boundaries and the hazards that occur at each.</p> <p>Task students with creating a spider diagram of what they already know about volcanoes and volcanic eruptions. This might include famous volcanoes, parts of a volcano, hazards associated with volcanic eruptions and impacts.</p> <p>Introduce key terms such as:</p> <p>Magma: molten rock that can be found beneath the Earth's surface.</p> <p>Lava: molten rock ejected by volcanoes. This is what erupts from a volcano.</p> <p>Igneous rock: rock formed when molten rock cools and solidifies.</p> <p>Hot spots: areas away from plate boundaries where the crust is thinner, which is caused by an unusually hot mantle plume. The plume melts and thins the Earth's crust.</p> <p>Ash clouds: dense clouds of volcanic ash, dust and gases which can be hazardous to the aviation industry and people.</p>	<p>You may wish to stop at relevant points during this short video to pose questions and check understanding, or wait until the end. Useful questions might include:</p> <ul style="list-style-type: none"> • Where are weak points on the Earth's crust found? • What happens at a constructive plate boundary? • What happens at a destructive plate boundary? • What is a hot spot? • What happened in the Canary Islands in 2021? • Why were few people impacted by this eruption? • What happened in the DRC in 2021? • Why is it difficult to be able to accurately predict lava flows? • What issues did the Eyjafjallajökull eruption cause widespread issues?
After watching		
<p>To help with their understanding of plate boundaries, students should draw out the different plate boundaries and the processes that occur at each. Students could research where these plate boundaries can be found - for example, there is a constructive plate boundary which divides Iceland and forms the Mid-Atlantic Ridge.</p> <p>Look at websites such as the United States Geological Survey and the British Geological Survey volcano maps. Is there a pattern as to where the volcanoes happen? Can students map this to the plate boundary maps? Students could also explore which volcanoes have erupted recently or are currently erupting at the time of study.</p>		

After watching (continued)

Task students to research the different types of volcanoes: *stratovolcanoes* and *shield* volcanoes. Students could look at how different the eruptions are - for example, some eruptions are *effusive* and some are *explosive*. They could sketch each volcano type and find examples of each. Students could also look at where these volcanoes occur. Is there a pattern to the types of volcanoes and their global location?

Curriculum notes	Where next?	Links
<p>This clip will be relevant for teaching Geography at KS3 in England, Wales and Northern Ireland and 3rd and 4th Level in Scotland.</p> <p>In the English National Curriculum this film can be used to help teach the following:</p> <ul style="list-style-type: none"> <i>Physical geography relating to geological timescales and plate tectonics.</i> 	<p>Use the Earth Learning Ideas website to complete investigations into types of lava and why some eruptions are explosive and some are effusive.</p> <p>There are lots of great hands-on experiments, such as putting honey into one cup and fizzy drink into another and then blowing into each with a straw.</p> <p>Each cup's contents represent a different viscosity of lava, which in turn would lead to either an explosive or effusive eruption.</p>	<p>Plate tectonics: https://www.bbc.co.uk/bitesize/topics/zn476sg/articles/zrcgr2p</p> <p>Volcanoes: https://www.bbc.co.uk/bitesize/topics/zn476sg/articles/z9k496f</p> <p>Volcanoes: https://www.bbc.co.uk/bitesize/guides/z8p9j6f/revision/1</p>