






National Curriculum	Natural Disaster	Categories	Key Questions	Vocabulary	
<p>Pupils should extend their knowledge and understanding beyond the local area to include the United Kingdom and Europe, North and South America. This will include the location and characteristics of a range of the world's most significant human and physical features. They should develop their use of geographical knowledge, understanding and skills to enhance their locational and place knowledge. Pupils should be taught to:</p> <p>Locational Knowledge</p> <ul style="list-style-type: none"> locate the world's countries, using maps, focus on key physical and human characteristics, countries, and major cities identify the position and significance of latitude, longitude, Equator, Northern Hemisphere, Southern Hemisphere, the Tropics of Cancer and Capricorn, Arctic and Antarctic Circle, the Prime/Greenwich Meridian and time zones <p>Human and Physical Geography</p> <ul style="list-style-type: none"> describe and understand key aspects of: physical geography, including: climate zones, biomes and vegetation belts, rivers, mountains, volcanoes and earthquakes, and the water cycle <p>Geographical Skills and Fieldwork</p> <ul style="list-style-type: none"> use maps, atlases, globes and digital/computer mapping to locate countries and describe features studied use the eight points of a compass, four and six-figure grid references, symbols and key (including the use of Ordnance Survey maps) to build their knowledge of the wider world 	<p>Volcanoes</p> 	<p>Distinction between active, dormant and extinct – magma erupts through the Earth's crust to form lava flows and ash deposits</p>	<p>What is extreme weather and how do extreme weather phenomena affect the world?</p>	<p>dormant/active</p>	<p>The state/condition the volcano is in</p>
	<p>Earthquakes</p> 	<p>Moving tectonic plates cause earthquakes - significance of fault lines – examples on earth- identify on world map</p>		<p>How are 'plate tectonics' involved in the creation of earthquakes and tsunamis?</p>	<p>eruption</p>
	<p>Tornadoes</p> 	<p>Violent rotating column of air extending from a thunderstorm to the ground that moves with immense power and causes incredible destruction</p>	<p>Where are volcanoes located in the world and how do eruptions affect local and international populations?</p>	<p>lava</p>	<p>The hot molten rock</p>
	<p>Tsunamis</p> 	<p>Underwater earthquakes that cause waves of water – engulfing low lying areas</p>		<p>magma</p>	<p>Hot fluid rocks under the Earth's crust</p>
	<p>Hurricanes</p> 	<p>Tropical storm becomes a hurricane when the winds reach 74mph – these occur in the Atlantic Basin – there is a season in the year when they are most frequent</p>	<p>What are tornadoes and hurricanes and what effects can they have on countries and people?</p>	<p>Seismic waves</p>	<p>An elastic wave in the Earth produced by an earthquake</p>
			<p>crater</p>	<p>Large hollow in the mountain forming the mouth of a volcano</p>	
			<p>Tectonic plates</p>	<p>Slabs of the Earth's crust that move causing earthquakes</p>	
			<p>fault</p>	<p>When a rock formation is broken</p>	
			<p>epicentre</p>	<p>Point in the centre of an earthquake</p>	
			<p>aftershock</p>	<p>Smaller earthquake following a main earthquake</p>	
			<p>magnitude</p>	<p>Size of an earthquake</p>	
			<p>twister</p>	<p>Another name for a tornado</p>	
			<p>vortex</p>	<p>Whirling mass of fluid or air</p>	
			<p>eye</p>	<p>Centre of a storm - calm</p>	

Key Learning: What are extreme weather and natural disasters and how do they affect the world?

- 1 To investigate the Earth's climate and areas of extreme temperatures.**

What is climate? Different areas of the world experience different climates and conditions depending on where they are. Identify on a world map where the hottest countries on Earth and discover why. Identify the coldest places on earth and explore reasons as to why this occurs. Research other weather phenomenon such as the wettest places, driest places and 'Tornado Alley'.
- 2 To find out about extreme weather conditions across the world.**

In many parts of the world, the weather changes very little. It can be hot, cold, rainy, snowy, foggy, etc. but not extreme. However, freak weather occurrences can happen anywhere in the world and some parts of the world frequently have to endure extreme weather. Children explore, tornadoes, hurricanes, blizzards, lightning storms, floods and hail storms and the localities where these most often occur. Locate Tornado Alley on map.
- 3 How are volcanoes formed?**

The Earth's crust isn't one solid layer. It is broken up into huge areas called tectonic plates that float on top of the mantle. Volcanoes are formed when magma, which is located at the centre of the Earth, pushes its way upwards through the Earth through a long shaft. When the magma travels through the Earth's crust, it finds the breaks in the tectonic plates and it emerges as lava. Once this lava has erupted onto the Earth's surface, it cools and hardens into a pile of rock. Explore how volcanoes erupt.
- 4 Learn about where volcanoes are located (Ring of Fire) and how they affect peoples' lives.**

Where are most volcanoes found? Why? Recap and refer to tectonic plate boundaries. Many volcanoes (450 of the 1500 volcanoes in the world) are located in an area known as the "Ring of Fire". Iceland and Hawaii are places where many of the volcanoes are also located. Are all volcanoes likely to erupt? Introduce the vocabulary, dormant, active and extinct. It is difficult to classify dormant volcanoes – volcanologists monitor active and dormant volcanoes closely to look for changes in temperature, small earthquakes and gases being given off. These changes could all suggest an eruption is likely. Explore the positives and negatives of living near volcanoes.
- 5 Understand earthquakes, what causes them (plate tectonics) and how they are measured.**

The tectonic plates slide/hit each other causing shock waves that are an earthquake. The further away from the epicentre the softer the shock waves. Shock waves cause buildings/ furniture to shake and can destroy roads and water and sewage pipes. This can leave devastation for the human population. With homes destroyed and unsafe water supplies and diseases easily spreading. Countries prone to earthquakes are located in similar places to the 'ring of fire' for volcanoes. People living in earthquake zones must practice earthquake drills. Investigate how earthquakes are measured, on the Richter scale and the Mercalli scale which is based on people's observations during an earthquake.
- 6 Understand how tsunamis are formed and the devastation caused by them.**

A tsunami is caused by an earthquake under the ocean. The energy from the vibrations and plate movement cause 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 and eventually reach land as huge destructive waves, causing flooding and destruction to housing and peoples lives. As with other natural disasters, a set of safety rules exist to help protect the population. Tsunamis are most likely to occur around the Pacific Ocean, as they are linked to earthquakes. There have only been two confirmed tsunamis to hit the UK – one in 6100 BC and one in 1755.

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7	<p>Investigate what causes a tornado and what affect they have on the environment.</p> <p>Understand that a Tornado is different to the other extreme earth phenomena as it is formed when warm air rises up from near the ground into big thunderstorm clouds and the winds high up near the tops of the storm clouds start rotating in a vortex . This moves downwards and becomes more narrow developing into tornadoes. Tornadoes can cause huge damage and are very common in Tornado Alley, USA and cause immense devastation to land, buildings and the human population. Around 30 less powerful, occur each year in the UK.</p>
8	<p>Learn about hurricanes and their effects</p> <p>A hurricane is a huge, rapidly rotating storm. When winds reach 74 miles per hour, a hurricane is officially born. Hurricanes can be up to 600 miles across and have strong winds of up to 200 mph. Each hurricane usually lasts for over a week, moving 10-20 miles per hour over the ocean. Hurricanes form close to the equator. Hurricanes rotate around the centre of the storm or "eye"; this is the calmest part.</p>
9	<p>Recap and Reflection of topic</p>