



Autumn Term 1

Topic Title: Earth Matters - volcanoes and earthquakes

History	Geography	Art	Design and Technology
	<p>The children will describe and understand key aspects of physical geography, including: volcanoes and earthquakes.</p> <p>Children will use maps, atlases, globes and digital/computer mapping to locate countries and describe features studied</p>	<p>They will study mastery of art and design techniques and produce creative work, exploring their ideas and recording their experiences.</p>	<p>Use, research and develop design criteria to inform the design of innovative, functional, appealing products that are fit for purpose.</p> <p>Create a simple version of a seismograph to show vibration.</p> <p>The children will create a 3d model of a volcano using a medium of their choice. These can be exploded in order to recreate a volcanic eruption</p>

Key drivers of the curriculum

Aspirations	Global citizenship	Wellbeing
<p>Careers within geology and seismology</p> <p>Reporting news from around the world.</p>	<p>In Geography, we will be teaching the children what it means to be a global citizen. Through our teaching about human and physical features we will investigate the impact and destruction an erupting volcano and earthquakes have</p>	<p>Sending humanity and aid to places in need after a natural disaster</p> <p>Links to PSHCE - empathy</p>

Core links through the curriculum.

Basic Skills

Real World Applications

English	Numeracy	Using Technology including Computer Science	Science
<p>Key texts</p> <p>Writing opportunities Plan and perform a commentary on the build up to the eruption and the eruption itself. Writing explanations Be able to identify the audience for and purpose of the writing, selecting the appropriate form and using similar writing as models for their own.</p> <p>Reading opportunities Skimming and scanning to find information when doing research Perform their own compositions, using appropriate intonation, volume, and movement so that meaning is clear.</p>	<p>Reading scales (link to seismograph)</p> <p>Grid references on maps</p>	<p>Conducting own research using search engines</p>	<p>Building knowledge of convection currents, magnetism and forces including friction.</p>

Objectives	Activities
Geography:	
<p>I can describe and understand key physical aspects of volcanoes.</p> <p>I can describe and understand key physical aspects of earthquakes.</p> <p>I can understand how physical processes can cause hazards to people.</p> <p>I can describe some advantages and disadvantages of living in hazard-prone areas.</p> <p>I can use simple geographical vocabulary to describe significant physical features and talk about how they change.</p>	<ul style="list-style-type: none"> • Understand how tectonic plates work. • Identify the layers of the earth and how volcanoes are formed. • Discuss what happens on the edge of a plate and where plates are located in the world. • Identify the Ring of Fire and discuss why it exists. • Study the features of extinct, dormant and active volcanoes. • Discuss the inside of a volcano using diagrams and focusing on the layers and structure of a volcano intersection. • Understand the difference between magma and lava. • Discuss what happens when a volcano erupts and why • Describe and understand key aspects of earthquakes. • Use maps, atlases, globes and digital/computer mapping to locate countries and describe features studied. • Understand how tectonic plates work. • Identify the layers of the earth and how earthquakes occur. • Consider the effects felt at the surface of the Earth when tectonic plates move. • Understand what happens with tectonic plates move. • Understand what seismic waves are and what effect they have during an earthquake. • Learn how seismic waves are recorded. • Gain an understanding of life in an earthquake zone and become familiar with the precautions and preparations required. • Compile an earthquake drill for their class, based on their knowledge of how their surroundings may behave in an earthquake. • In role, practise an earthquake drill in the classroom. Understand how buildings are designed to withstand earthquakes.
ICT:	
<p>I understand that search results are selected and ranked.</p> <p>I can be confident in creating and modifying text and presentation documents for a specific purpose.</p> <p>I can use a keyboard effectively including the use of keyboard shortcuts.</p> <p>I know how to use a spell check.</p>	<p>Conducting own research using search engines</p>
D&T	
<p>I can use the ideas of experts and existing designs to help design my own product.</p> <p>I can create a detailed plan for my product and explain it</p> <p>I can create a cross sectional drawing of my design.</p> <p>I can use given shapes on a computer program to create a design.</p> <p>I can consider the views of others, including the intended users to improve the work.</p> <p>I can evaluate my design and suggest improvements.</p>	<p>Make a DIY seismograph in order to gain an understanding of how seismic waves are recorded and measured</p> <p>Identify some of the factors that make buildings earthquake-proof, including cross bracing, large 'footprints' and tapered geometry.</p> <p>Make an earthquake-proof structure using marshmallows and straws on a 'ground' of jelly.</p>

<p>I can evaluate a product for purpose and appearance.</p> <p>I can select materials and components suitable for a task.</p>	
Art	
	<p>Draw on knowledge of the Earth's layers to construct a cross section of the Earth.</p> <p>Create volcanic artwork inspired by the work of artist Margaret Godfrey by layering tissue onto a tile, to represent layers of a volcano.</p>
PE	
<p>I can confidently improvise with a partner or on their own.</p> <p>I am beginning to create longer dance sequences in a larger group.</p> <p>I can demonstrate precision and some control in response to stimuli.</p> <p>I am beginning to vary dynamics and develop actions and motifs.</p> <p>I can demonstrate rhythm and spatial awareness.</p> <p>I can modify parts of a sequence as a result of self-evaluation.</p> <p>I can use simple dance vocabulary to compare and improve work</p>	<p>Watch a volcano dance and describe their appreciation of the music and movement.</p> <p>Enact the build up to the eruption and the eruption itself through dance and music.</p>
Music	
<p>I can evaluate others work, thinking about pitch, mood, rhythm and tempo</p>	<p>Watch a volcano dance and describe their appreciation of the music and movement.</p> <p>Enact the build up to the eruption and the eruption itself through dance and music.</p>