



Springwood School Medium Term Planning

Topic: Volcanoes and Earthquakes

Term: Spring Term

	Sensory Level P1-P3	Access Level P4-P8	National Curriculum Level 1-2
Non-negotiable Learning			
	Suggested Activities	Suggested Activities	Suggested Activities
Locations/ famous volcanoes and earthquakes	<p><i>Experience what both an earthquake and a volcano is through a range of sensory exploration – exploring colours, hot/colds, vibrations, immersive work in the sensory room etc.</i></p> <p>Experience seeing a volcanic eruption – project images onto the CTouch, wall, interactive floor – create sensory feel, e.g. hot water bottles to create the heat, liquid poured over hands to recreate flowing Lava.</p> <p>Use different instruments to recreate the ‘booming’ noise and the ‘slithering’ lava that would accompany an eruption.</p> <p>Experience ‘feeling an earthquake’ – use different objects that children can sit on (e.g. physio ball, trampoline) and create an ‘earthquake’.</p> <p>Use resonance boards to create vibration and feel the effects of vibration.</p> <p>Put items such as rice on a drum and encourage pupils to bang it to see the effect of the vibration.</p>	<p><i>Explore the locations of famous volcanoes – find photos in books and on the internet – are there any in this country? (Arthur’s seat – Edinburgh) – What is a volcano – what does it do?</i></p> <p><i>Explore the locations of famous earthquakes – what happens during an earthquake, what effect does it have on people?</i></p> <p>Use internet and/or google maps to find the locations of some famous volcanoes. Use youtube to watch what happens when a volcano erupts.</p> <p>Use 360o Ipad app to tour volcanoes and their locations.</p> <p>Find out about different earthquakes – watch a video showing an earthquake (ensure suitability of video before showing) – talk about what happens.</p> <p>Create different methods of vibration (as previous column) Explore and discuss what the best materials are.</p>	<p><i>Investigate what a volcano is – how is it formed? What is the difference between ‘active’ and ‘inactive’? Where are the most famous volcanoes? What was the effect on the local area when the volcano erupted? Investigate some famous volcano eruptions, e.g. Pompeii.</i></p> <p><i>Investigate what an earthquake is. How is it caused? Which parts of the world are more prone to earthquakes? What is the effect of people when an earthquake happens?</i></p> <p>Link to a range of English activities – using descriptive language, writing a report, labelling etc.</p> <p>Use internet and Google maps to locate volcanoes - watch videos to see what happens when a volcano erupts – follow up descriptive work.</p> <p>Investigate the locations of different earthquakes – why do they happen in specific areas? Recreate ‘tectonic plates’ and vibration through using practical materials.</p>
What is a volcano?			
What is an earthquake? (Vibrations and sounds)			

<p>Recreate a volcano</p>	<p><i>Experience the sensory aspects of a volcano, e.g. running liquid, heat – make own sensory versions of a volcano.</i></p> <p>Make own sensory volcano – explore papier mache to mould, squeeze and manipulate. Create own ‘Volcano’ with the mixture.</p> <p>Explore things that bubble – bubble tube, bubble machines (linked to switch and threaded through a ‘volcano outline’ to produce an ‘eruption’.</p> <p>Experiment with bicarb of soda and vinegar or cola and Mentos to create an ‘eruption’.</p> <p>Water play activities to represent the Lava (use food colouring to turn the water red)</p> <p>Recreate a volcano outdoors in the mud</p>	<p><i>Explore what happens when a volcano erupts – what is lava, where does it come from, why does it cause so much devastation? Recreate own volcanoes.</i></p> <p>Link to work on watching a volcanic eruption – what happens, talk about what they can see and hear.</p> <p>Use different modelling materials (mod roc, playdough, clay) to create a volcano shape. Leave to set then decorate like a volcano when dry.</p> <p>Use different materials (depending on pupils) to create own volcano, e.g. Cola and Mentos, Bicarb of soda and vinegar.</p> <p>Use the movement of a volcano and the lava as a basis for some creative dance work.</p>	<p><i>Investigate why a volcano erupts, what is lava and where does it come from? Carry out science experiments to recreate own volcano.</i></p> <p>As previous column – pupils more involved in investigation, discussion, suggesting which materials to use to build their volcano and ultimately to create the eruption.</p>

	kitchen dig a hole, create a volcano and pour in cola and Mentos for the eruption.	Carry out some work on pouring – explore which things pour easily – have different consistencies of liquid and see which is really runny and can go a long way.	
How is an earthquake measured?	<i>Link to above work on vibrations.</i>	<p><i>Explore how scientists measure earthquakes – why do they measure them? Link to other types of mathematical measuring work.</i></p> <p>Link to work on vibrations – explore how we can make things vibrate a lot and a little. (Link to work above)</p> <p>Show and explore what a Richter scale does and why we measure. Link to work on measuring.</p>	<p><i>Investigate why an earthquake is measured – what is the difference between a small magnitude earthquake and a big magnitude earthquake in terms of damage?</i></p> <p>Look at the aftermath of different strength earthquakes – how are they different? Explain about the Richter scale and why it is used.</p> <p>Look at things that we measure – what scales do we use?</p> <p>Link to maths work on measuring.</p>
Impact of earthquakes and volcanoes.	<p><i>Experience sensory representations of the impact of earthquakes and volcanoes – e.g. large scale construction that falls down, sensory exploration with liquids and flooding.</i></p> <p>Use a range of building and construction materials for the pupils to explore and build with. Take photos of the ‘building’ once constructed. Get the children to use different equipment or their hands to create the ‘earthquake’ and make the building fall – take photos and compare the before and after.</p> <p>Create an ‘earthquake video’ – use the iPad or camera – children to hold and film where possible – adult to shake them to create an ‘earthquake’. Watch the video back to see the effects.</p>	<p><i>Explore the impact of earthquakes on buildings and the surrounding areas.</i></p> <p><i>Explore the impact of volcanoes on people and the surrounding areas.</i></p> <p>Create and construct some different ‘buildings’ using a range of materials. Take photos of the buildings once they are constructed (get each child to build one and have a class town). Find different ways of causing vibration around the buildings (you may want to put them on a PE mat or build in the soft play room so they have an unstable floor). Cause an ‘Earthquake’ and see the effect on the ‘buildings’</p> <p>Take photos of the aftermath and compare.</p> <p>Plot where earthquakes have happened across the world – look at pictures to see the impact.</p> <p>Focus on one city that has a lot of earthquakes</p>	<p><i>Investigate what happens to buildings, towns, cities and people when an earthquake happens. If it is near the coast, what is the added risk? (Tsunami)</i></p> <p><i>Investigate what happens in the aftermath of a volcanic eruption – how is the local area affected, wildlife, land, houses, and people?</i></p> <p>Look at photos, videos of what happens after either an earthquake or a volcano – discuss what they can see.</p> <p>Find out about Pompeii – what happened to the people and the buildings after the volcano erupted?</p> <p>Investigate different consistency of liquid – how do we make liquid runnier or thicker? How far does each type of liquid run? Carry out investigation and record results.</p>

	<p>Recreate a volcano by exploring and pouring lots of different liquids of various consistencies.</p> <p>Pour liquids over different materials to feel and see the effects.</p>	<p>and look at how it has changed (E.g. San Francisco)</p> <p>Visit Legoland and use the earthquake simulator.</p> <p>Explore different liquids over a range of materials and record the effect that it has – link to Lava and volcanoes.</p>	<p>Create own buildings from different construction materials – as previous column. Find different ways to create an ‘earthquake’ and discuss/record what happens to the buildings. Compare with footage/photos from a real earthquake.</p>
Hot/Cold	<p><i>Volcanoes produce lava which is extremely hot – experience what ‘hot’ means – what things are hot, how do we keep hot, compare with things that are cold.</i></p> <p>Safely explore different things that are hot e.g. heated up wheat bag, hot water bottle.</p> <p>Compare the feeling to things that are cold, e.g. ice cream, ice cubes, cold water etc.</p>	<p><i>Explore the effects of the heat of a volcanic eruption – link this with the effects of heat on other things, e.g. foods, ice, people. Compare with the effect that cold has.</i></p> <p>Carry out some direct comparison activities – feel things that are hot and those which are cold - talk about likes and dislikes, reactions to each.</p> <p>In the cookery room – watch whilst things boil (keep pupils at a safe distance - if need be use a video rather than real objects) – talk about how this is the same as the lava inside a volcano becoming really hot.</p> <p>Explore what the effect is on different materials when hot water is added, e.g. foods, materials.</p> <p>Look at what happens when things are so hot they burn (toast etc.)</p> <p>Freeze items and compare to some of the above - talk about the differences.</p> <p>Explore different hot and cold colours and use as the basis for some art work.</p>	<p><i>Investigate the effects of the heat of a volcanic eruption - what did it do to the buildings and people of Pompeii? Link to investigations of the effect of heat with other things and compare this with the effects of something being cold.</i></p> <p>Investigate the effects of heat on different liquids - see how things bubble when they become hot. Test different materials to see the effect boiling liquid has on them (risk assess for own group)</p> <p>Compare with the effects of cooling things .</p>