**Elm, Maple, Walnut**
**Active Planet**

| Lesson | IPC Learning Goal | NC Coverage | Activities | Resources / Vocabulary / Personal Goals |
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| Entry Point | | Explain to the children that their school, because it is securely built, is going to be a disaster relief centre for everyone in the local area to come to if there is an earthquake. Ask the children to plan what they will do when everyone arrives. They should think about: What a relief centre does, e.g. offers emergency advice, basic first aid, shelter and food What supplies it needs, e.g. water, food and blankets How they will obtain supplies Which rooms will be used How many people the centre can accommodate How they will know who has arrived, e.g. they could keep a register What they will do with the younger children to help them pass the time How they will tell people what is happening Who the manager of the centre will be Ask the children to write and perform announcements for the television, telling people what to do in the case of an emergency. These could be videoed by yourself or the children. | | |
| Knowledge Harvest | | After the entry point, explain to the children that you are all going to find out what they know about the theme 'active planet'. Can they suggest reasons why this unit has this name?<br>Show the children pictures of the aftermath of earthquakes, erupting volcanoes, tsunamis, etc., and ask them to write down what they think is happening or has happened in each picture. | | |
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| Geography 1 | 2.05 Be able to use geographical terms<br>2.08 Be able to use maps at a variety of scales to locate the position and geographical features of particular localities<br>2.09 Be able to use secondary sources to obtain geographical information | | The children should discuss as a class what they know about volcanoes. They should research using the internet and other sources to answer each of the following questions:<br>What do volcanoes look like? Where can volcanoes be found? What are the different states of volcanoes called? (dormant, active, extinct, etc.) What happens when volcanoes erupt? (both what we can see and what happens under the surface)<br>The children could make drawings of volcanoes in their sketchbooks so that they can be used in the later Art tasks for ideas and review.<br>Ask the children to make a paper folding model of the Earth and draw a volcano coming from the crust.<br>They should be able to describe the following:<br>Crater Cone Ash cloud Lava Lateral vent Central vent Magma | Plenary: On a map locate the volcanoes around the world. |
| Geography 2 | 2.05 Be able to use geographical terms<br>2.08 Be able to use maps at a variety of scales to locate the position and | | Working in pairs or small groups, ask the children to choose a volcano to research.<br>They could choose:<br>A volcano from the home or host countries A famous volcano from history, e.g. Vesuvius in Pompeii A volcano that they think people should know more about<br>They should research this case study, looking at: | Children to use assessment table to peer mark another groups presentation and stick into books. |

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| | geographical features of particular localities<br>2.09 Be able to use secondary sources to obtain geographical information<br>2.11 Be able to communicate their geographical knowledge and understanding to ask and answer questions about geographical and environmental features | | The current status of the volcano (dormant, etc.) The location of the volcano and of any local cities or towns that might be affected by an eruption, etc. The history of the volcano (past eruptions, etc.) If they think any activity is likely in the near future Ask each pair or small group to prepare a digital presentation of their researched volcano | |
| Geography 3 | 2.05 Be able to use geographical terms<br>2.07 Be able to make simple maps and plans of familiar locations<br>2.08 Be able to use maps at a variety of scales to locate the position and geographical features of particular localities<br>2.09 Be able to use secondary sources to obtain geographical information<br>2.11 Be able to communicate their geographical knowledge and understanding to ask and answer questions about geographical and environmental features | | Ask the children if they have ever seen a real volcano or visited a volcanic region. Discuss where it was and what they did. Is there any volcanic scenery in the home or host country? Tell the children that volcanoes are important tourist attractions in many countries.<br>Divide the class into small groups. Give each group one volcanic region to research, for example:<br>Iceland – research geysers, hot springs and geothermal-heated pools Hawaii – research the unique species of animals and plants found here USA, Yellowstone Park – research the Old Faithful Geyser Italy – research Italy's volcanoes Mount Etna, Stromboli, Vesuvius<br>The children should find out what attracts tourists to these particular volcanic areas. Ask them, what do the tourists like to do here? They should locate and label these areas on the world map from Geography Task 1.<br><br>In groups children will research their chosen volcano and produce a brochure encouraging people to go and visit their chosen location. | Children to create a neat version of their brochure for display. |
| Geography 4 | 2.05 Be able to use geographical terms | | The children should use atlases and reference books to research where the Earth's plates meet. Stick an enlarged world map onto | |

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| | 2.08 Be able to use maps at a variety of scales to locate the position and geographical features of particular localities<br>2.09 Be able to use secondary sources to obtain geographical informatio | | thin card and cut along the lines of the tectonic plates. Using this model, discuss what happens when the plates move apart, against or underneath each other.<br>Now compare the locations of where earthquakes occur to where volcanoes are found. Can the children offer any explanations for what they discover?<br>The children can add this information to the world map from Task 1.<br>As a further activity, you could divide the class into groups, naming each group after one of the tectonic plates, including the following:<br>Eurasian African Indian-Australian Antarctic Pacific North American South American Caribbean | |
| Geography 5 | 2.12 Understand how places fit into a wider geographical context | | Children to look at how earthquakes are formed and write a description of this in their books.<br><br>Tell the children that the strength of earthquakes is measured by an instrument called a seismograph and it uses the Richter scale.<br>The children can make a simple seismograph.<br>They will need:<br>A cardboard box (without a lid) A felt-tip pen Sticky tape A pencil Modelling clay String A piece of card<br>The open part of the box will be the front of the instrument. Make a hole in the top of the box. Roll clay around the felt-tip pen to weight it. Tie one end of string around the top of the pen and thread the other end through the hole in the box and tie it around the middle of the pencil. Roll the string around the pencil so that the tip of the pen just touches the bottom of the box and tape the pencil onto the top of the box. Put the card in the bottom of the box so that the pen tip can just mark the card. Shake or tilt the box and the pen will mark the card, creating your own seismograph. | Children to stick seismograph into books and explain how an earthquake is measured. |
| Geography 6 | 2.05 Be able to use geographical terms<br>2.07 Be able to make simple maps and plans of familiar locations<br>2.08 Be able to use maps at a variety of scales to locate the | | Tell the children that earthquakes release energy in the form of waves travelling through the ground. You could liken it to the ripples on a pond when a stone is thrown into it. The waves radiate outwards from the epicentre – the centre of the earthquake. The ground shakes and this causes landslides, collapsed buildings, destroyed roads and services (see the big picture). | |

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| | position and geographical features of particular localities<br>2.09 Be able to use secondary sources to obtain geographical information<br>2.11 Be able to communicate their geographical knowledge and understanding to ask and answer questions about geographical and environmental features | | Ask the children to build small houses using dominoes or building bricks and a piece of card for a roof, and place near the edge of a table. Many people in earthquake zones live in the simplest of houses, built not too differently from this one. Then ask them to hit the opposite edge of the table with their hand (not too hard!). Do the same on the edge by the house using the same amount of force.<br>The children should watch this very closely, and you might like to film the process and play it back in slow motion for the children to watch.<br><br>In groups using straws and clay, children to create an earthquake proof structure in groups.<br><br>Place on a table and record what happens to the building when the table is shaken. | |
| Geography 7 | 2.09 Be able to use secondary sources to obtain geographical information<br>2.11 Be able to communicate their geographical knowledge and understanding to ask and answer questions about geographical and environmental features | | Review the learning we have done about Earthquakes and how they are caused.<br>Look at the powerpoint about the Japanese Earthquake and the impacts it had on the country.<br>Children to note down key facts about the Earthquake using the videos and information provided.<br><br>Recording activity:<br>Children to create a 2 page spread about the disaster in Japan in their own way. They may like to think about:<br>newspaper reports<br>non-chronological reports<br>case study<br>news broadcast script<br>diary account of someone from Japan. | Complete rubric for the activity. |
| Music 1 and Music 2 | 2.01 Know how a number of musicians - including some from their home country and the host country - organise sounds and use them expressively<br>2.02 Know how a number of musicians - including some from | Research activity<br>Musicians throughout history have been inspired by the natural world; by dramatic landscapes and weather. Some examples you can study include: | Jón Leifs was an Icelandic composer who witnessed the eruption of a volcano called Hekla then depicted it through his music.<br>See link below:<br>youtube.com/watch?v=jHwkwp5eXDE – YouTube has this amazing footage of an erupting volcano accompanied by the explosive music of Jón Leifs.<br>(To watch a YouTube video in safe mode, scroll to the bottom of the page and click on the 'safety' tab which brings up the 'Safety mode' information. Under this section, select the 'on' option, then click 'save') | Personal Goals<br>Communication<br>Cooperation Enquiry<br>Thoughtfulnesmusical instruments |

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| | their home country and the host country - choose sounds and instruments which are appropriate for their task<br>2.03 Be able to recognise and explore the ways that sounds can be organised and used expressively<br>2.08 Be able to choose sounds and instruments which are appropriate for their task<br>2.11 Be able to talk about pieces of music, giving reasons for their opinions<br>2.13 Understand how musical elements are combined and varied to create different effects | Grand Canyon Suite, by Ferde Grofé, United States Night on Bald Mountain , by Modest Mussorgsky, Russia An Alpine Symphony, by Richard Strauss, Germany Four Sea Interludes, by Benjamin Britten, United Kingdom La Mer, by Claude Debussy, France Hekla, by Jón Leifs, Iceland | Together with the class, choose one or two pieces of music that have been inspired by nature and find out about the composers and the background story behind each piece. Play samples of the music and encourage the children to listen with attention and detail so that<br>they can recall the sounds. Can they describe how musicians use sounds to paint a picture of a scene or an event in nature? Which instruments do they use to represent waves, rain, snow, wind, fire, thunder, sunset, dawn, etc.? When the children are listening to the music they should identify:<br>Instruments Techniques - melody, rhythm Solos - instruments and voice<br>The children are later going to use this research to devise a piece of their own music that is inspired by what they have learned about volcanoes.<br>Listen to a variety of musical sounds that could be connected to volcanoes, e.g. peace and quiet from a dormant volcano, light puffs of smoke and steam, loud crashing eruption, etc.<br>Make a collection of untuned instruments, e.g. tambourine, drums, cymbals, castanets, triangles and xylophones. Invite the children to explore the different sounds they can make using the instruments, e.g. light puffs of smoke and steam might be represented on the xylophone, and crashing eruptions could be replicated with cymbals and drums. Don't forget that the voice is an instrument too!<br>Depending on the musical abilities of your children, you could use tuned instruments also, including piano, keyboard and violin.<br>Recording activity<br>Ask the children to try to identify the different instruments used and to decide which instruments they might use for volcano sounds.<br>Are they going to use their voices?<br>Can the children tell you which instruments make a soft sound or a loud sound? A high sound or a low sound? A long sound or a short sound?<br>In the tasks that follow, the children are going to combine these sounds to create a piece of music with a structure. | |
| Music 3 and Music 4 | 2.03 Be able to recognise and explore the ways that sounds | Personal Goals<br>Communication<br>Cooperation | Research activity<br>Give the children a selection of instruments they decided would be suitable to represent the sounds of a volcano in Task 1. | musical instruments |

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| | can be organised and used expressively<br>2.04 Be able to sing in tune and with expression<br>2.05 Be able to perform simple pieces rhythmically using a limited range of notes<br>2.07 Be able to compose simple pieces to create intended effects<br>2.08 Be able to choose sounds and instruments which are appropriate for their task<br>2.09 Be able to improve their own work, having regard to the intended effect | Resilience<br>Thoughtfulness | Ask the children to work in pairs to try to make sounds that represent volcanoes. They should experiment with dynamics (loud or soft), pitch (high or low), rhythm (repeated patterns) and tempo (very slow, slow, medium, fast or very fast).<br>You might find it useful to divide the children into groups at this stage: one group could get together to create sounds that depict the beginning of the eruption - the low rumblings underground; a second group could create the sounds associated with the loud and explosive impact of the eruption; and the third group could compose the sounds of the calm that comes after the eruption.<br>The following website will provide a useful reference point for children and teachers:<br>sfskids.org – San Francisco Symphony Kids' website features games and activities to teach children the basics of music<br>Recording activity<br>The children should now try out their compositions in front of the rest of the class. Encourage the children to play their instruments and use their voices with accuracy, fluency, control and expression.They could use poetry for a solo voice or chorus, which could be accompanied or unaccompanied by other instruments. Do the other children think that they chose good sounds and instruments? Can they say why?<br>Music combines well with dance and art so it is worth exploring these links here, for example, the volcano paintings the children create in the later Art tasks could be used as video backdrops. The dance that they choreograph in the Physical Education tasks can also be combined in their musical performance. | |
| Music 5 and Music 6 | 2.03 Be able to recognise and explore the ways that sounds can be organised and used expressively<br>2.07 Be able to compose simple pieces to create intended effects<br>2.08 Be able to choose sounds and instruments which are appropriate for their task | Personal Goals<br>Communication<br>Cooperation<br>Resilience<br>Thoughtfulness | Research activity<br>Working in groups and using a variety of instruments, ask the children to compose a short piece of music that tells the story of a volcano. They could use the activities of one of the volcanoes they have studied so far in this unit as inspiration for this.<br>Remind the children that not all volcanoes are explosive. Icelandic volcanoes spill streams of lava into the ocean – they don't explode. Mount Etna spits and spurts lava. Vesuvius, however, is an explosive volcano.<br>Tell the children that the sounds they create have to combine, like the words in a sentence. So sounds in music have pauses, like commas and full stops, and they have harmonies and textures that are like verbs and adjectives. A piece of music also | a variety of musical instruments<br><br>paper to record their own music |

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| | 2.09 Be able to improve their own work, having regard to the intended effect<br>2.10 Be able to explain their own work in terms of what they have done and why<br>2.11 Be able to talk about pieces of music, giving reasons for their opinions | | has to have a beginning, a middle and an ending. It needs a structure or a plan.<br>Recording activity<br>Once the groups have had time to practice, they can perform their piece for the rest of the class. The audience should listen carefully and decide what 'story' the music is telling. Is the volcano dormant or erupting? Can the children make a guess at the type of volcano it might be?<br>Ask the children to offer suggestions to improve each other's work (choice of instrument, tempo, dynamics, pitch, rhythm, etc.). If the children decide to incorporate these suggestions they can re-perform their piece for the class.<br>Can the children work out ways of writing down their music so they could perform it again in the same way?<br>The children could work on a pictorial form of notation. For example, they could draw symbols to represent each instrument and numbers to indicate the number of beats, letters 'f' or 's' could indicate 'fast' or 'slow', 'h' or 'l', 'high' or 'low', and so on. They will need to decide on a system that makes sense for them and that they will remember.<br>Ask them, why is it useful to be able to write music down? If they didn't have a system for remembering, what would happen the next time they wanted to perform their volcano piece? | |
| Music 7 and Music 8 | 2.03 Be able to recognise and explore the ways that sounds can be organised and used expressively<br>2.10 Be able to explain their own work in terms of what they have done and why | Personal Goals<br>Communication<br>Cooperation<br>Enquiry | In the previous task, the children devised their own musical notations. In this next task, you could introduce the children to the staff and other standard musical notations.<br>One way to do this might be to look at the notations on a piece of sheet music. Tell the children that written music is like a language that they can learn to read like the letters on a page that make words and sentences. Some of the children who are learning to play an instrument may already know what some of the symbols mean and can help others in the class.<br>The following websites are useful:<br>classicsforkids.com/games – Classics for Kids has some fun music games, including the Note Name Game.<br>learninggamesforkids.com/featured-games/music_and_art_games_musical_notes.html – Learning Games for Kids website has games to help children learn musical notes. | Sheet music<br>A variety of musical instruments |
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