## Extreme Earth: Cross-Curricular Topic: Year 5/6

### Geography

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<td>1</td>
<td>Explore the Earth’s extreme climates by investigating what climates there are on our planet and finding out about the hottest, wettest, coldest and driest places on Earth.</td>
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<td>2</td>
<td>Find out about the water cycle and how it works to result in different levels of rainfall in different parts of the world.</td>
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<td>3</td>
<td>Investigate a variety of extreme weather phenomena, such as tropical storms, floods, lightning, hurricanes and tornadoes, and the effects these can have on people and the landscape.</td>
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<td>4</td>
<td>Explore how the Earth’s surface is split up into tectonic plates and the resulting earthquakes that occur when they move.</td>
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<td>5</td>
<td>Find out how tsunamis are caused by earthquakes under the sea floor, focusing on the effects that tsunamis can have on an environment.</td>
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<td>6</td>
<td>Identify the differences between a volcano and a mountain. Discover how volcanoes are formed and what happens when one erupts.</td>
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### Extreme Earth

**A KS2 cross-curricular topic for Year 5/6**

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### Art

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### PSHE

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NB: ‘FSD? Activity only’ refers to the alternative ‘Fancy Something Different…?’ activity within the lesson plan.
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<tr>
<th>Lesson</th>
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| Lesson 1 | To find out about the Earth’s climate and areas of extreme temperatures. | In this first lesson the children will be introduced to the hottest, driest, coldest and wettest places on the planet. They will need to think about the location of these places on the planet and use their knowledge to reason why these places may have these extreme climates. | - Do children know that places in the world near the equator are generally hot?  
- Do children know that the coldest places in the world are by the poles?  
- Can children describe how climates and weather conditions vary around the world? | Slides  
Worksheet 1A/1B/1C/1D  
Fact Cards  
Atlases/access to internet  
Information Cards (FSD? activity only) |
| Lesson 2 | To find out about the water cycle and the distribution of water across the world. | Children will investigate the water cycle and how this continuous process creates precipitation and rivers. They will also reflect on what happens to environments when there is drought and who this can affect. | - Do children know that all the water in the world moves in a continuous cycle?  
- Can children describe the different stages of the water cycle?  
- Can children describe what a drought is and how they are caused? | Slides  
Worksheet 2A/2B/2C/2D  
Information Sheet (FSD? activity only)  
Books/access to internet (FSD? activity only) |
| Lesson 3 | To find out about extreme weather conditions across the world. | This lesson explores the different types of extreme weather that can occur around the world and what causes them. The children have the opportunity to reflect on any extreme weather they have witnessed themselves and research and investigate instances of extreme weather from around the world. | - Can children identify and name examples of extreme weather?  
- Can children explain why some of these examples of extreme weather occur?  
- Can children communicate their knowledge of extreme weather in a variety of ways? | Slides  
Worksheet 3A/3B/3C  
Information Sheet (FSD? activity only)  
Picture Cards (FSD? activity only) |
| Lesson 4 | To find out about earthquakes and what causes them. | Children will learn about earthquakes and how the movement of the tectonic plates cause them. They will explore and discuss the effects that earthquakes can have on a community and how earthquakes can be measured using the Richter scale. | - Do children know what causes earthquakes?  
- Do children know that some places in the world are more prone to earthquakes than others?  
- Can children use maps to identify areas that are prone to earthquakes? | Slides  
Worksheet 4A/4B/4C  
Earthquake Cards A/B  
Earthquake Zone Map  
Plate Tectonics Map  
Challenge Cards (FSD? activity only)  
Extreme Earthquakes sheet (FSD? activity only) |
| Lesson 5 | To find out about tsunamis and how they are caused. | Following on from the previous lesson the children will use their understanding of earthquakes to describe how a tsunami is created. They will look in detail at the effects of the 2004 Boxing Day tsunami and the lasting effects it had on the environment and the people living there. | - Do children know that a tsunami is caused by movement of tectonic plates?  
- Can children describe the effects of a tsunami?  
- Can children identify areas of high risk on a world map? | Slides  
Worksheet 5A/5B  
Sentence Cards |
| Lesson 6 | To find out what volcanoes are and how they are formed. | Consolidating their knowledge of the Earth’s tectonic plates, the children learn about volcanoes around the world. They will learn to distinguish between active, dormant and extinct volcanoes as well as exploring the connection between the tectonic plates and the locations of volcanic activity. | - Do children know why volcanoes erupt?  
Can children convey their knowledge of volcanoes in a variety of ways?  
Can children describe volcanoes using geographical and descriptive language? | Slides  
Worksheet 6A/6B/6C  
Picture Cards  
Volcano Acrostic sheet  
Help Sheet (FSD? activity only)  
Materials as listed on Help Sheet (FSD? activity only) |
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| **Lesson 1** | To explore and recreate Hokusai’s ‘The Great Wave’. | The children will analyse The Great Wave by Hokusai, looking at the colours, features and materials used to create the famous picture. They will use their analysis to inspire their own 3D recreation of The Great Wave using paper and layering colours. | • Do children know who Hokusai was and how he created ‘The Great Wave’?  
• Can children analyse ‘The Great Wave’ and express how they feel about it?  
• Can children use a variety of skills to recreate ‘The Great Wave’? | • Slides  
• Picture Card  
• Worksheet 1A/1B  
• Card  
• Sticky Foam Pads  
• Watercolours  
• Variety of art materials, e.g. pastels, paints, tissue paper, etc. (FSD? activity only) |
| **Lesson 2** | To use colour, line and shading to create artistic tornadoes. | This lesson will help the children focus on lines and shading to create a 3D effect when colouring their tornado-inspired artwork. Using curved lines and changing between concave and convex lines the children can create a rounded effect in their drawings. | • Can children make decisions about colours to use in their work?  
• Can children use tone and shade in their work to produce effects?  
• Can children evaluate their finished work and say what they think and feel about it? | • Slides  
• Worksheet 2A/2B  
• Tornado Template  
• Help Sheets  
• Coloured card (FSD? activity only)  
• Sculpture wire (FSD? activity only) |
| **Lesson 3** | To be able to create a clay sculpture of an animal that lives in extreme conditions. | Children are challenged to think about how animals have adapted to living in extreme conditions and recreate an animal using clay. They will need to think carefully about the unique features of each and use various tools to create a likeness of their chosen animal. | • Can children work with an image, exploring line and shape, to gather ideas?  
• Can children work with clay to create a sculpture of a particular animal?  
• Can children assess their finished work and say what they think and feel about it? | • Slides  
• Worksheet 3A/3B/3C  
• Picture Cards  
• Clay and clay tools  
• Paint and varnish  
• Challenge Cards (FSD? activity only) |
# Extreme Earth: Cross-Curricular Topic : Year 5/6

## PSHE

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| **Lesson 1**       | To explore how people around the world respond to natural disasters. | • Do children understand the scale and range of devastation that can occur following a natural disaster?  
• Do children know some of the ways in which aid agencies help after a natural disaster?  
• Can children empathise with those affected by a natural disaster and share their feelings? | • Slides  
• Worksheet 1A/1B/1C  
• Sentence Cards  
• Video cameras (FSD? activity only) |
| **Lesson 2**       | To explore how famine, drought and poverty affect people around the world. | • Do children know how drought and famine affect people around the world?  
• Do children know how aid agencies respond to the challenges of drought and famine?  
• Can children express their feelings and thoughts about this topical issue? | • Slides  
• Picture Cards  
• Word Cards  
• Blank Word Cards  
• Worksheet 2A  
• Access to computers (FSD? activity only) |
| **Lesson 3**       | To explore how human activity can affect climate change. | • Do children know what climate change is?  
• Can children describe some of the effects climate change has on the Earth?  
• Can children describe ways of reducing their carbon footprint? | • Slides  
• Worksheet 3A/3B/3C/3D  
• Footprint Templates (FSD? activity only)  
• Access to internet (FSD? activity only)  
• Large sheets of paper (FSD? activity only) |
# Extreme Earth: Cross-Curricular Topic : Year 5/6

## MUSIC

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| **Lesson 1**       | To be able to use percussion to create a storm composition. | • Can children listen and respond to a composition?  
• Can children work in an ensemble to compose a percussive piece of music?  
• Can children perform a composition with accuracy and control? | • Slides  
• 'Boom' full track and background track (mp3)  
• Worksheet 1A/1B  
• Variety of percussion instruments |

| **Lesson 2**       | To be able to compose a piece of music to portray a natural disaster. | • Can children use a variety of instruments with accuracy and control?  
• Can children compose a piece of music to portray a particular event, considering volume, pitch, tone, tempo and rhythm?  
• Can children perform a piece of music with confidence and control? | • Slides  
• Worksheet 2A/2B/2C  
• Variety of musical instruments |

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| **Lesson 1**       | To be able to design, make and evaluate a waterproof container. | • Can children investigate how waterproof various materials are?  
• Can children design and make a waterproof container using a variety of materials and techniques?  
• Can children evaluate their finished products effectively? | • Slides  
• Worksheet 1A/1B/1C/1D/1E/1F  
• Variety of materials to test (both waterproof and not waterproof), e.g. plastic bags, bubble wrap, fabric, oil cloth, card, etc.  
• Tools, e.g. scissors, craft knives, staplers, needles and thread, masking tape, sticky tape, etc.  
• Ready-made containers (FSD? activity only) |

| **Lesson 2**       | To be able to design, make and evaluate interactive info-boxes. | • Can children design a variety of interactive features to present information?  
• Can children follow a design to create an interactive info-box?  
• Can children evaluate their finished work and identify areas of strength and weakness in their designs? | • Slides  
• Worksheet 2A/2B/2C/2D  
• Help Sheet  
• Challenge Cards (FSD? activity only)  
• Components for circuits  
• Variety of materials, e.g. dowelling, card, art straws, tubes, etc.  
• Variety of tools, e.g. scissors, glue, tape, rulers, saws, craft knives, etc. |