

## Year Group Curriculum Planning Overview

Year Group: Y6	Term: 1	Unit: Extreme Earth	Timescale: 12 weeks	Values: Honesty/ Responsibility			
Big Question: How can we survive the world's most extreme conditions?			Core Text: Ice Trap, Shackleton's Diary,				
	Q1	Q2	Q3	Q4	Q5	Q6	Q7
<p><b>Steps to Understanding</b> Questions that help to focus in on answering the Big Question</p>	<p>Where is Antarctica? What is it like?</p>	<p>Who found Antarctica and when was the 'heroic' age of Antarctic discovery?</p>	<p>What Human and physical features are there in Antarctica?</p>	<p>What was the Endurance Expedition? What happened?</p>	<p>What is daily life like in Antarctica today?</p>	<p>What environmental threats are facing Antarctica today?</p>	<p>What would survival look like in a desert?</p>
<p><b>Core Knowledge</b> What do I want each child to know by the end of each step?</p>	<p>Locational Knowledge: Antarctica's place on the Earth and on a map</p> <p>Place Knowledge: Understanding Antarctica's size and composition</p> <p>Physical Geography: Seasonal/geographical variations over time, and different forms of land and terrain</p>	<p>Know the history of Antarctica exploration and in particular the expeditions led by Scott.</p> <p>Plot the expeditions on a timeline</p> <p>Understand the different strategies used for expeditions and how these impacted on the success or otherwise of the expedition.</p>	<p>Understand and describe the main landscape features seen in Antarctica using the correct geographical vocabulary.</p> <p>Know what the Antarctic climate is like and how these impacts on human activity.</p> <p>To know how volcanoes are formed and what happens during a volcanic eruption.</p>	<p>Know about different locations within Antarctica.</p> <p>Consider the landscape and fauna of Antarctica.</p> <p>Know the story of Shackleton's Endurance expedition.</p> <p>Appreciate human courage and resilience in the face of adversity.</p>	<p>Know that no-one lives permanently on Antarctica.</p> <p>Understand that other than water supply, human survival is dependent on the import of equipment, provisions, and resources which provide shelter, heat and light.</p> <p>Understand the purpose of the work carried out at the various Antarctic research stations.</p>	<p>Understand climate change and how the ozone layer is linked to the greenhouse effect and global warming.</p> <p>Know the different threats to the Antarctica ecosystem – global warming, research stations, fishing, tourism etc. and consider</p>	<p>Understand and describe the main landscape features seen in the desert using the correct geographical vocabulary.</p> <p>Know what the Antarctic climate is like and how this impactson human activity</p>

						<p>the relative impact of these threats.</p> <p>Understand how an ecosystem is reliant on a series of links if it is to be sustained.</p> <p>Consider what could be done to reduce these environmental threats.</p>	
<b>Key Vocabulary</b>	Antarctica, South Pole, Continent, Icy Desert, Climate, Terrain, Glacier, Latitude Iceberg Landscape, Longitude Equator Meridian Terrain	Amundsen, Mawson, Scott, Shackleton, Competition, Pride, Challenge, Race, Perseverance. Teamwork	Ice Shelves, Glaciers, Climate, Precipitation, Volcanoe, Magma, Crater, Lava Flow, Ash Cloud	Expedition, Endurance, Abandon, Shackleton, Stranded, Inspirational, Survival, Resilience	Geologist, Scientific Research Station, Scientists	Climate Change, Greenhouse Gasses, Global Warning, Greenhouse Effect, Ozone Layer, Elevation, Sea Level	Abrasion Arid Canyon Drought Extreme Temperature
<b>What are the difficulties and misconceptions?</b>	The children will not know all of the continents. They will not know where Antarctica is or the geographical features. They won't know people live and work there and the impact of the greater world. They will think you find polar bears there. They will not understand global warming and the destruction of the ice caps.						
<b>Prior Learning:</b>	Select maps for purpose, Use an atlas, Sketch maps, Antarctica being the coldest continent on earth, Not many people live there, Animals that live in the Arctic, Not many plants grown on the land of the Arctic						
<b>Ignition:</b> How will you begin your unit?	Introduce the topic. Go through the learning over the next few weeks. Short clip of David Attenborough film.						

<b>Rationale:</b>	The aim of the module is to develop an enquiry on the Polar region using Shackleton's 1914–17 Endurance Expedition as a focal point. We will also look at the continuing scientific research that takes place there, in particular linked to global environmental threats. The study of deserts will allow children to compare and contrast two different survival areas.
<b>Trips:</b>	Snowdome?

### Medium Term Planning

Week	Prior Knowledge	Big Question	Little Question		What do I want them to know by the end of the week? Core Knowledge	
1	Know that Antarctica is the coldest continent on earth.	<b>How can we survive the world's most extreme conditions?</b>	Where is Antarctica? What is it like?		Map work Co-ordinates Size and composition Continents Geographical features	
WALTs (Linked to national Curriculum Objectives and skills)		Differentiated Activity GD/ EAL/ SEN/Behaviour	Resources	Vocab	Cross curricular writing	AFL End of week quiz Exit Ticket
WALT: Use maps to locate Antarctica and describe features		Have available a selection of world maps, atlases and globes. Can children locate the Antarctic? How would they describe its location?  Recap on the 7 continents of the world using the Labelling activity. Session1 Resources folder. Look at the Antarctica map and the Antarctica Base Map – both of these show the Antarctic Circle and main lines of latitude and longitude.	Maps, atlas, google earth, documentary	Antarctica, South Pole, Continent, Icy Desert, Climate, Terrain, Glacier, Latitude Iceberg Landscape, Longitude Equator Meridian Terrain	Fact file on physical geography- climate	

WALT: Identify the location and characteristics of a range of the world's most significant human and physical features.	Explain that we use grid references to describe the location of places on earth using imaginary lines. Watch the Bitesize Longitude and Latitude videoclip 1:54 which explains this.				
WALT: Identify the position and significance of latitude, longitude, Equator, Northern and Southern Hemisphere, Arctic and Antarctic Circle	Children given a copy of the world map with co-ordinate lines on and answer the questions for the longitude and latitude co-ordinates activity.				

Week	Prior Knowledge	Big Question	Little Question		What do I want them to know by the end of the week? Core Knowledge	
2	People live in Antarctica.	<b>How can we survive the world's most extreme conditions?</b>	Who found Antarctica and when was the 'heroic' age of Antarctic discovery?		Polar explorers Timeline Who was involved? How did the race begin? How did others try and copy?	
WALTs (Linked to national Curriculum Objectives and skills)		Differentiated Activity GD/ EAL/ SEN/Behaviour	Resources	Vocab	Cross curricular writing	AFL End of week quiz Exit Ticket
WALT: Know the history of Antarctica exploration and in particular the expeditions led by Scott.  WALT: Understand the different strategies used for expeditions and how these impacted on the success of the expedition.		Place events on a timeline in chronological order. LA will have cut and stick activity. HA / MA to use information from internet or text books. GD do timeline then talk about the impact of events.  Create a map using coordinates with reference to longitude and latitude.	Internet Books Timeline Pictures	Amundsen, Mawson, Scott, Shackleton, Competition, Pride, Challenge, Race, Perseverance. Teamwork	Biography	Entry Ticket - Features of a biography  Exit Ticket – identify which of the people from the names given were famous explorers

Week	Prior Knowledge	Big Question	Little Question		What do I want them to know by the end of the week? Core Knowledge	
3	Know that warmth and protection in order to survive and special measures are put in place.	<b>How can we survive the world's most extreme conditions?</b>	What Human and physical features are there in Antarctica?		Physical features. Surviving Endurance	
<b>WALTs (Linked to national Curriculum Objectives and skills)</b>		<b>Differentiated Activity GD/ EAL/ SEN/Behaviour</b>	<b>Resources</b>	<b>Vocab</b>	<b>Cross curricular writing</b>	<b>AFL End of week quiz Exit Ticket</b>
WALT: Understand and describe the main landscape features seen in Antarctica using the correct geographical vocabulary.  WALT: Know what the Antarctic climate is like and how this impact on human activity.		Research and gather data to show what the weather and temperature is like in Antarctica Graphs  Children to make a model of the landscape of Antarctica	Data, graphs, shoe boxes, cardboard, arts and crafts materials	Ice Shelves, Glaciers, Climate, Precipitation, Volcanoes, Magma, Crater, Lava Flow, Ash Cloud	None	Mini quiz, entry ticket, exit tickets

Week	Prior Knowledge	Big Question	Little Question		What do I want them to know by the end of the week? Core Knowledge	
4	Know that warmth and protection in order to survive and special measures are put in place.	<b>How can we survive the world's most extreme conditions?</b>	What Human and physical features are there in Antarctica?		Human Geography features	
<b>WALTs (Linked to national Curriculum Objectives and skills)</b>		<b>Differentiated Activity GD/ EAL/ SEN/Behaviour</b>	<b>Resources</b>	<b>Vocab</b>	<b>Cross curricular writing</b>	<b>AFL End of week quiz Exit Ticket</b>
WALT: Know how volcanoes are formed and what happens during a volcanic eruption.		Children are given a copy of the Antarctica facts document. Read through the facts clarifying any unfamiliar vocabulary. It		Ice Shelves, Glaciers, Climate, Precipitation,	Links in with Science – Living things and their habitats	Mini quiz, entry ticket, exit tickets

<p>WALT: Select appropriate tools, materials, components and techniques</p> <p>WALT: Explore measures used to adapt to a landscape</p>	<p>mentions the fact that there are volcanoes on Antarctica. What do the children know about volcanoes? Watch the BBC Bitesize video clips about volcanoes. <a href="#">Volcanoes - BBC Bitesize</a> 1:39 and 1:32. Children then create a fact file about one of the volcanoes in Antarctica.</p> <p>Children make a model of a volcano, and test using Mentos, and Coke.</p> <p>Research clothing, food, shelter to survive on Antarctica. Children create an information leaflet for researchers travelling to Antarctica.</p>		<p>Volcanoe, Magma, Crater, Lava Flow, Ash Cloud</p>		
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Week	Prior Knowledge	Big Question	Little Question		What do I want them to know by the end of the week? Core Knowledge	
5	Clothing, shelter to keep us warm.	<b>How can we survive the world's most extreme conditions?</b>	What was the Endurance Expedition? What happened?		Why he did the expedition? Who went with him? How did they get there?	
<b>WALTs (Linked to national Curriculum Objectives and skills)</b>		<b>Differentiated Activity GD/ EAL/ SEN/Behaviour</b>	<b>Resources</b>	<b>Vocab</b>	<b>Cross curricular writing</b>	<b>AFL End of week quiz Exit Ticket</b>
<p>WALT: Sequence several events, historical figures on a timeline</p> <p>Shackleton Documentary 1-hour lesson</p> <p>WALT: Know about the lives and achievements of significant individuals throughout history.</p>		<p>Produce a timeline of key events of the endurance expedition.</p> <p>Research key explorer and present information about his life. HA/ MA to write biographies LA to be given a range of key words/pictures. GD will compare their individual with another key figure</p>	<p>Images for timeline, differentiated worksheets, ppt, books, documentary, biographies, laptops</p>	<p>Expedition, Endurance, Abandon, Shackleton, Stranded, Inspirational, Survival, Resilience</p>		<p>Mini quiz, entry ticket, exit tickets</p>

Week	Prior Knowledge	Big Question	Little Question		What do I want them to know by the end of the week? Core Knowledge	
6	Clothing, shelter to keep us warm.	<b>How can we survive the world's most extreme conditions?</b>	What was the Endurance Expedition? What happened?		What challenges he faced How did he overcome them	
WALTs (Linked to national Curriculum Objectives and skills)		Differentiated Activity GD/ EAL/ SEN/Behaviour	Resources	Vocab	Cross curricular writing	AFL End of week quiz Exit Ticket
<p>WALT: Explore and analyse Shackleton's characteristics which made him a good leader x2</p> <p>WALT: Explore how music was used to encourage, comfort and uplift during the Endurance expedition</p>		<p>Research what made Shackleton a good leader. Find out what people have said about him.</p> <p>Create a playscript with dialogue from crew members discussing Shackleton's qualities</p> <p>What did the crew do to keep themselves entertained? How was music used? What songs would the men sing? Listen to and practice a song from that era. Preform.</p>	WAGGOL, biographies, quotes, diary entries	Expedition, Endurance, Abandon, Shackleton, Stranded, Inspirational, Survival, Resilience	Playscripts	Mini quiz, entry ticket, exit tickets

Half Term

Week	Prior Knowledge	Big Question	Little Question		What do I want them to know by the end of the week? Core Knowledge	
7	A lot of scientists do research there. Penguins live there.	<b>How can we survive the world's most extreme conditions?</b>	What is daily life like in Antarctica today?		Daily life People Jobs Food Ways of survival	
WALTs (Linked to national Curriculum Objectives and skills)		Differentiated Activity GD/ EAL/ SEN/Behaviour	Resources	Vocab	Cross curricular writing	AFL End of week quiz Exit Ticket
<p>WALT: Understand geographical similarities and differences through the study of human and physical geography of a region</p> <p>WALT: Describe and understand key aspects of human geography, including: types of settlement and land use</p>		<p>Go through ppt to check understanding on what the conditions of Antarctica are and why people can't live there. Explain that no-one lives permanently on Antarctica due to the extreme conditions. However, every year there are about 1,200 people from around the world who are working and living at Scientific Research stations at different locations around Antarctica. About a third of these are scientists and the remainder are support people.</p> <p>Children to write a letter as a researcher/scientist interested in applying for a job working in Antarctica.</p> <p>Imagine they are a travel agent who want to advertise the latest adventure holiday. Why should people visit? What would they need to take with them?</p> <p>On whiteboards make a list. Discuss their suggestions.</p> <p>The main items would be as follows:</p> <ul style="list-style-type: none"> <li>• food</li> <li>• water for drinking and washing</li> <li>• shelter from rain, cold and heat</li> </ul>	WAGOLL, letter template, SEN worksheets	Geologist, Scientific Research Station, Scientists	Letter writing	Mini quiz, entry ticket, exit tickets

	<ul style="list-style-type: none"> <li>• fuel for light, heat and refrigeration</li> <li>• clothes</li> <li>• medicines</li> </ul> <p>Other than water, all these items would need to be transported to Antarctica.</p> <p>Write a short script for a TV advert and perform to be recorded.</p>				
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Week	Prior Knowledge	Big Question	Little Question		What do I want them to know by the end of the week? Core Knowledge	
8	Global warming, ozone layer, something needs to be done to improve the situation.	<b>How can we survive the world's most extreme conditions?</b>	What environmental threats are facing Antarctica today?		What is climate change?	
WALTs (Linked to national Curriculum Objectives and skills)		Differentiated Activity GD/ EAL/ SEN/Behaviour	Resources	Vocab	Cross curricular writing	AFL End of week quiz Exit Ticket
WALT: Understand what climate change is		Experiment – Recreate the Greenhouse Effect - Explain the experiment e.g. what it is testing and how it will be carried out. Ask students to brainstorm for ways to test the effects of greenhouse gasses on air, soil and water temperatures, as well as polar ice caps, using the aforementioned equipment. Set up a sample experiment as a guide- Provide each team with the equipment and ask the students to select one effect to test. The student-designed experiment should include a hypothesis, a procedure (including a sketch) and a data recording table, including appropriate units of measure. - Once the experiment is	Interactive water resource - Whiteboard or projector - Post its and A3 sheet of paper - Pens - Internet access, Two clear plastic 2-liter bottles per team (cut one near shoulder and one 4 inches from the bottom) - Plastic wrap or clear plastic bags to cover the "greenhouses" - String or rubber bands to	Climate Change, Greenhouse Gasses, Global Warning, Greenhouse Effect, Ozone Layer, Elevation, Sea Level	Scientific write up of an experiment, speech writing.	Mini quiz, entry ticket, exit tickets

<p>WALT: Understand the effects of plastic pollution</p> <p>WALT: Recognise my actions can influence my carbon footprint</p>	<p>approved students should carry out their experiments for approximately 30minutes and record their observations, before, during and after the period the bottles are in the light. - After completion each team will report on their experiment, listing their hypothesis, set up, findings and whether there were any experimental errors. They should also relate their findings to the real life impacts of the excessive release of greenhouse gasses into the environment and what might happen if this continues</p> <p>After learning about the effects, children will create a speech informing others of the effects plastic pollution is having on the planet. Children to include persuasive techniques and speech features.</p> <p>Children to create a poster informing others of how to reduce their carbon footprint.</p>	<p>hold the plastic in place - Two thermometers per team - Two 2" x 2" pieces of thin cardboard (to hold thermometer in place)</p> <p>- Soil, ice cubes and water - Plastic rulers - Masking tape to tape thermometer to inside of bottle - Utility knife or saw for cutting the plastic bottles (can be done by teacher in advance or by students) - Clip-on light source with at least a 100 watt bulb (if cloudy or doing in doors) per team of student</p>			
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Week	Prior Knowledge	Big Question	Little Question	What do I want them to know by the end of the week? Core Knowledge
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9	Global warming, ozone layer, something needs to be done to improve the situation.	<b>How can we survive the world's most extreme conditions?</b>	What environmental threats are facing Antarctica today?		What are the effects of climate change?	
<b>WALTs (Linked to national Curriculum Objectives and skills)</b>		<b>Differentiated Activity GD/ EAL/ SEN/Behaviour</b>	<b>Resources</b>	<b>Vocab</b>	<b>Cross curricular writing</b>	<b>AFL End of week quiz Exit Ticket</b>
WALT: Explore the impact of climate change on the world x2  WALT: Debate factors which has help control climate change		Activity to show how melting ice caps affects sea levels. Look at satellite pictures of different coastlines and video simulation. Mark the effect of this on a map.	Pictures, videos, ppt, satellite images, internet, laptops	Climate Change, Greenhouse Gasses, Global Warning, Greenhouse Effect, Ozone Layer, Elevation, Sea Level	None	Mini quiz, entry ticket, exit tickets

Week	Prior Knowledge	Big Question	Little Question		What do I want them to know by the end of the week? Core Knowledge	
10	Global warming, ozone layer, something needs to be done to improve the situation.	<b>How can we survive the world's most extreme conditions?</b>	What environmental threats are facing Antarctica today?		What can we do to protect our planet?	
<b>WALTs (Linked to national Curriculum Objectives and skills)</b>		<b>Differentiated Activity GD/ EAL/ SEN/Behaviour</b>	<b>Resources</b>	<b>Vocab</b>	<b>Cross curricular writing</b>	<b>AFL End of week quiz Exit Ticket</b>
WALT: Understand the distribution of natural resources.		Research where natural resources come from and think about alternatives available. Children to produce a table to show this. SEN/LA to use read made table  Produce a graph to show the use the use of natural resources in different climate zones.	SEN/LA worksheet, internet, books, ppt	Climate Change, Greenhouse Gasses, Global Warning, Greenhouse Effect, Ozone Layer, Elevation, Sea Level	Explanation writing	Mini quiz, entry ticket, exit tickets

WALT: Understand key aspects climate zones and biomes.					
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Week	Prior Knowledge	Big Question	Little Question		What do I want them to know by the end of the week? Core Knowledge	
11	Weather conditions on a dessert.	<b>How can we survive the world's most extreme conditions?</b>	What would survival look like in a desert?		Similarities/differences Compare How/Why?	
<b>WALTs (Linked to national Curriculum Objectives and skills)</b>		<b>Differentiated Activity GD/ EAL/ SEN/Behaviour</b>	<b>Resources</b>	<b>Vocab</b>	<b>Cross curricular writing</b>	<b>AFL End of week quiz Exit Ticket</b>
WALT: Understand the physical and human features of a dessert  WALT: Use appropriate tools to create a diorama x2		Produce a fact file with information about the physical and human features of a dessert.  Children to create their dioramas with the materials provided.	Cardboard, shoe boxes, plastic, sand, polystyrene, arts and crafts materials	Abrasion Arid Canyon Drought Extreme Temperature	Fact file	Mini quiz, entry ticket, exit tickets

Week	Prior Knowledge	Big Question	Little Question		What do I want them to know by the end of the week? Core Knowledge	
12	Weather conditions on a dessert.	<b>How can we survive the world's most extreme conditions?</b>	What would survival look like in a desert?		Similarities/differences Compare How/Why?	
<b>WALTs (Linked to national Curriculum Objectives and skills)</b>		<b>Differentiated Activity GD/ EAL/ SEN/Behaviour</b>	<b>Resources</b>	<b>Vocab</b>	<b>Cross curricular writing</b>	<b>AFL End of week quiz Exit Ticket</b>

WALT: Compare and contrast the physical and human features of the Antarctica and the Sahara desert	Produce a ven diagram to compare the two different climate zones.	SEN/LA worksheet, ppt, internet, books, images	Abrasion Arid Canyon Drought Extreme Temperature	Comparative writing	Mini quiz, entry ticket, exit tickets
WALT: Present information x2	Using all the information we have learned, produce a 5 minute presentation which could be shown to someone who doesn't know anything about climate change and global warming.				

### Calendar for the Autumn Term

Date	Event/ Activity	Date	Event/ Activity
Wk1	Settling in week Baseline Assessments for UKS2 and Reception Phonics Assessments	Wk8	Trips
Wk2		Wk9	Trips
Wk3		Wk10	Trips
Wk4		Wk11	Assessment Week Phonics Screening Mock Check Y4 Multiplication Tables Check Mock Test
Wk5		Wk12	Pupil Progress Meetings
Wk6		Wk13	End of Unit Tests
Wk7	Trips Parents Evening Thursday 2st October Inset Friday 22 <sup>nd</sup> October	Wk14	N/R/Y1 Nativity Dress Rehearsal N/R/Y1 Nativity Y2 Dress Rehearsal Y2 Christmas Production
	Half Term		Christmas Break

Knowledge Organiser