

Module Plan: Exploring Shackleton's Antarctica

Lesson One: Curious Continents

Locational Knowledge	Place Knowledge	Key questions and ideas	Teaching and learning activities	Resources
Antarctica's place on the Earth and on a map	<ul style="list-style-type: none"> Polar Regions Understanding Antarctica's size and composition 	<p>Where is Antarctica?</p> <p>What is Antarctica 'made of'?</p> <p>What time is it at the South Pole?</p>	<p>STARTER: Tune children into the enquiry. Share terms 'Antarctic Circle' and latitude. Elicit pupil's misconceptions explaining that Antarctica is a landmass rather than ice sheet.</p> <p>What time is it at the South Pole? http://www.timeanddate.com/time/time-zone-antarctica.html 24 hours of sun: Youtube video</p> <p>MAIN ACTIVITY: Explore the ways this landmass and associated oceans are depicted in a variety of sources. <i>Task – to find the Antarctic Circle in an Atlas and identify a physical feature of Antarctica on 2 different lines of latitude. Use of a simple latitude map (see image links) and also world Atlases.</i></p> <p>Curiosity Challenge – General Research about Antarctica (see web-links). Children to create a poster 'What we already know' and 'What we would like to find out' display linked to unit (show in plenary)</p>	<p>Interactive: http://ngm.nationalgeographic.com/ngm/antarctica/ (Physical Geography – interactive using keys)</p> <p>Downloads: Curious Continents (PPT) Factsheet PDF MSWORD</p> <p>Links: (General Intro to Antarctica Links)</p> <ul style="list-style-type: none"> http://www.worldatlas.com/webimage/countrys/a/n.htm http://www.mapsofworld.com/lat_long/antarctica-lat-long.html <p>Google Earth and Satellite maps.</p> <ul style="list-style-type: none"> http://www.discoveringantarctica.org.uk/ http://classroom.antarctica.gov.au/exploring/mapping <p>Video: 24 Hours of Sun: http://www.youtube.com/watch?v=2nc6nhTaEt4</p>
Human and Physical Geography	Geographical Skills and Fieldwork		<p>PLENARY: Complete a 'What we already know' and 'What we would like to find out' display linked to unit. (Link to assessment) Introduce all children to the web-link and set homework tasks linked to what they want to find out.</p>	Assessment opportunities
Physical Geography: Antarctica as a polar region, seasonal/geographical variations in time, Different forms of land and terrain				Using the 'What we already know' questions, create a 'base-line' of understanding showing progression by the end of the unit

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Lesson Two: Fascinating Imagery

Locational Knowledge	Place Knowledge	Key questions and ideas	Teaching and learning activities	Resources
	Ice types and Fauna	<p>Who found Antarctica and when?</p> <p>Which explorer got to the South Pole first?</p> <p>Why is Sir Ernest Shackleton an important 'Antarctic' historical figure?</p> <p>What would the crew of Shackleton's Expedition have seen along their route?</p>	<p>STARTER: Introduce 'Explorer' element of this unit. Race to the South Pole. Shackleton's Endurance Expedition (100 years ago). Share advert and book trailer for drama (See downloads) and overview: http://www.shackleton100.com/mission/ What would the crew have seen along their route? (Elicit misconceptions at this stage).</p> <p>MAIN ACTIVITY: Map and plot the 'Race to the Pole' coordinates (see activity: Unlocking the Archives). Map and plot the route of the Endurance expedition (see map and timeline)</p> <p>Extension activities: Shackleton's Antarctic Adventure Teacher's Pack http://main.wgbh.org/imax/shackleton/pdf/teachqdi.pdf</p> <p>PLENARY: Children explore the work of Frank Hurley (expedition photographer). Pupils take on his role and imagine what he would see through the camera lens along this journey.</p> <p>Poster check and working wall activity.</p>	<p>Interactive: www.kodak.com/US/en/corp/features/endurance/</p> <p>Downloads: Factsheet PDF MSWORD Life of Shackleton PDF MSWORD Shackleton Timeline and Overview PDF MSWORD Endurance Expedition Crew PDF MSWORD Images of Shackleton PPT Shackleton's Advert PDF MSWORD Example of Pupil's Work PPT</p> <p>Images: Flickr 'Creative Commons' search 'Frank Hurley' (use of images for educational use)</p> <p>Video: Shackleton's Endurance Expedition Trailer: http://www.youtube.com/watch?v=2QrNlbcz7XE</p> <p>Endurance Trailer: http://www.youtube.com/watch?v=p5tEgFtOaSw</p> <p>Antarctica Centred Map Aerial images of Antarctica</p> <p>Assessment opportunities</p> <p>Link back to Posters – what have they learnt? Add information to posters (post it notes) and/or create a working wall.</p>
Human and Physical Geography	Geographical Skills and Fieldwork			
<ul style="list-style-type: none"> Visual Identification of features of Antarctic geomorphology 	Longitude and Latitude; visual understanding of Polar Landscapes			

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Lesson Three: Perplexing Poles

Locational Knowledge	Place Knowledge	Key questions and ideas	Teaching and learning activities	Resources
	<ul style="list-style-type: none"> Antarctica and its specific physical geography 	<p>What does 'Antarctica' mean?</p> <p>What are the seasons on this continent?</p> <p>What is life like at the Poles?</p> <p>What time of year would you plan your expedition?</p>	<p>STARTER: Children use a variety of mapping sources, locating the north and south poles – explaining the term 'ant-arctic.'</p> <p>Investigate the seasons on Antarctica – see interactive link</p> <p>MAIN ACTIVITY: Outline this lesson's focus on creating a 'Fact Book' focusing on locating information linked to Physical features of the continent. Share with pupils a range of on-line sources of information, using blogs and modern day expeditions to research information (also use links from previous lessons).</p> <p>Using the explorer's accounts shared to consider 'physical geography' at the South Pole e.g. time zones at the Pole in addition to mountain ranges, volcanoes and the ever changing ice mass and glaciers throughout the seasons.</p> <p>PLENARY: challenge/consolidation/assessment activity asks pupils to decide what time of year they would plan their expedition and submit an 'Expedition Application'</p>	<p>Interactive: Antarctica's seasons: http://www.divediscover.who.edu/ecosystem/infomod.html</p> <p>Downloads: Antarctica Expedition Proposal PDF MSWORD Antarctica Expedition Proposal Answer Sheet PDF MSWORD Factsheet PDF MSWORD</p> <p>Links: See lesson plans</p> <p>Video: Secret Life of Ice (BBC) http://www.bbc.co.uk/programmes/b016fpvy</p> <p>Climate maps to establish hot and cold areas across the globe</p> <p>Assessment opportunities</p> <p>Linked to plenary (see Factsheet).</p>
Human and Physical Geography	Geographical Skills and Fieldwork			
Physical: hot and cold climate zones and the influence of the earth's orbit on climate zones	Map skills - Using different secondary data sources for geographical investigation			

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Lesson Four: Shaping of the World

Locational Knowledge	Place Knowledge	Key questions and ideas	Teaching and learning activities	Resources
<ul style="list-style-type: none"> Knowledge of route taking by Endurance Expedition 		<p>What was the planned journey of the Endurance Expedition?</p> <p>What journey did they actually do to survive?</p>	<p>STARTER: Recap on Shackleton's Endurance Expedition from Lesson 2. Explain how the expedition did not follow the planned route due to the ship (Endurance) getting stuck in the Weddell Sea's pack ice.</p> <p>MAIN ACTIVITY: Children plot and role play the journey of the Expedition Timeline using links to mapping work and lines of latitude learnt. Pupils to also give consideration to all elements of the Expedition, for example, The Ross Sea Party (the food depot ship).</p> <p>Through discussion consider the reasons why these routes were chosen.</p>	<p>Downloads: Factsheet PDF MSWORD Images of Endurance Expedition PPT Antarctica Map PDF MSWORD Shackleton Endurance Expedition Timeline and Historical Overview PDF MSWORD</p> <p>Images: Table Top Maps</p> <p>Links: www.shackletonpic.com Explorer Talks</p> <p>Video: Re-enactment via Shackleton Epic James Caird Boat Journey voyage: http://www.discoveryuk.com/web/shackleton-death-or-glory/videos/</p>
Human and Physical Geography	Geographical Skills and Fieldwork		PLENARY: Share and perform drama pieces, in the order of the timeline. These performances can then be 'fine-tuned' to show in an assembly or as part of 'Antarctica Day'.	Assessment opportunities
<ul style="list-style-type: none"> Physical: Antarctica's mountainous terrain, oceans and their effects and influences upon the expedition 	<ul style="list-style-type: none"> Classifications & Keys Mapping, graphing and data presentation Four and six-figure grid references, 			

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Lesson five: Living and learning on the ice

Locational Knowledge	Place Knowledge	Key questions and ideas	Teaching and learning activities	Resources
		Do people live on Antarctica? What is daily life like on Antarctica?	<p>STARTER: Post questions for lesson and share ideas and links (research stations, penguin post office, and tourism).</p> <p>MAIN ACTIVITY: Using role play, pupils can appreciate a day in the life of an Antarctica research station.</p>	<p>DOWNLOADS: Factsheet PDF MSWORD Example of Pupils' Work PPT Postcard Template PDF MSWORD</p>
Human and Physical Geography	Geographical Skills and Fieldwork		<p>Via the use of a variety of existing research centres, pupils map and locate their role play station on Antarctic. Use of teacher questioning and wider research by pupils, encourages discussions regarding this fragile environment, different time zones and daylight hours at the poles and how the tilt of the Earth affects this.</p> <p>Create role play areas based on research regarding 'Life on Antarctica'.</p> <p>PLENARY: Visit each role play area and provide feedback on choice of location within Antarctica</p>	Assessment opportunities
Physical: Antarctica's mountainous terrain, oceans and their effects and influences upon the expedition	Mapping skills combined with grid references			Physical/human links

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Lesson Six: Antarctica Day

Locational Knowledge	Place Knowledge	Key questions and ideas	Teaching and learning activities	Resources
	London, Buenos Aires, South Georgia, Elephant Island	Who were the members of the Endurance Expedition crew? What role did they play on The Endurance and throughout the expedition?	STARTER :Pupils should research the expedition crew and adopt the role of one member for the day MAIN ACTIVITY : 'Endurance Day' event: Pupils should create a living classroom – showcasing resources produced throughout the unit; as well as resources that enable the classroom to become a 'research station' or 'the endurance' ship. PLENARY : Pupils can invite their peers and school community to participate by performing an assembly. In pairs, pupils discuss the 'best' advice they can give to an explorer – reflecting what they have learnt on historic exploration and contemporary daily life on Antarctica. Teacher should collate these and add to a 'inspiration board' that encourage students to think about navigating this unique physical environment and subsequent unique human geography.	Downloads: Factsheet PDF MSWORD Newspaper template PUB Examples of pupils work PPT Endurance Crew List PDF MSWORD
Human and Physical Geography	Geographical Skills and Fieldwork			Assessment opportunities
Human Geography: exploration, daily life in Antarctica environments Physical Geography: Polar environments –features, animals, life.				End of unit assessment activity: Antarctica Day/Endurance Day – collating resources, images, written work, and role play produced throughout module for in school assembly

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Links Summary

DVDs:

The Endurance (cert PG) DVD – Liam Neeson narrates this docu-drama about Sir Ernest Shackleton's ill-fated Antarctic expedition – which uses contemporary footage alongside the real footage of the expedition taken by cameraman Frank Hurley.

Shackleton (cert 15 – requires editing for KS2) DVD – Setting out in 1914, Shackleton (Kenneth Branagh) and his crew set sail for Antarctica, but get into trouble when their ship, the Endurance, becomes stuck in pack ice. Abandoning the doomed vessel, Shackleton then takes the only course of action available, and sets out on foot, determined to lead his ailing crew to safety.

Books:

Shackleton's Journey by William Grill: Shackleton's Journey is a unique visual re-telling Ernest Shackleton's landmark expedition crossing the Antarctic from one pole to the other. William Grill's impeccably researched and informative illustrations celebrate the 100th anniversary since the historic exploration by Shackleton and his crew on Endurance. Children will love exploring Grill's exploded diagrams and the fascinating details of this landmark voyage.

Mrs Chippy's Diary by Caroline Alexander: This is the (fictional) journal of Mrs Chippy, the cat who accompanied the carpenter Harry "Chippy" McNeish on the Shackleton's "Endurance" expedition in 1914.

Avoid Joining Shackleton's Polar Expedition! (Danger Zone) by Jen Green: An account of Shackleton's Endurance Expedition presented in cartoon format. This book charts the events of the Endurance expedition and describes the ways in which Shackleton's polar team dealt with extreme cold, strong icy winds and the lack of food and water. The illustrations and text provide an insight into the conditions experienced by the explorers on this epic journey.

Web Links:

- Discovering Antarctica: <http://www.discoveringantarctica.org.uk/>
- RGS-IBG Antarctica Unit: www.unlockingthearchives.rgs.org/themes/antarctica/
- Interactive overview linked to expedition photographer Frank Hurley: www.kodak.com/US/en/corp/features/endurance/
- The Secret Life of Ice (BBC documentary): <http://www.bbc.co.uk/programmes/b016fpyy>
- Cool Antarctica: Fact files and information about everything 'Antarctica' <http://www.coolantarctica.com/index.html>
- Endurance Obituaries: <http://www.enduranceobituaries.co.uk/>
- Shackleton 100 (Centenary Celebration Links): <http://www.shackleton100.com/>
- Shackleton's Antarctic Adventure IMAX film: <http://main.wgbh.org/imax/shackleton/>
- Case study examples of Antarctica and Shackleton topic work in primary schools: www.shackletoninschools.com

Modern Day Antarctic Explorers:

Shackleton Epic - Centenary re-enactment of 'James Caird' boat journey: www.shackletonpic.com

The Coldest Journey: <http://www.thecoldestjourney.org/>

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Future Expedition Links:

From Fire to Ice: <http://fromfiretoice.org/>

Shackleton 2015: <http://www.shackleton2015.com/>

Field trips suggestions:

- Visit the James Caird – Dulwich College, Dulwich, London: <http://www.dulwich.org.uk/college/about/history/the-james-caird>
- Falmouth Maritime Museum (Falmouth, Cornwall) holds Hussey's Banjo: http://www.nmmc.co.uk/index.php?/collections/featured_objects/leonard_husseys_banjo
- Shackleton Museum (Athy, Ireland): <http://www.shackletonmuseum.com/>