

Focus + Area of Curriculum e.g Engage, Develop, Express Innovate	Objectives	Activity and lesson outline <a href="https://www.youtube.com/watch?v= kA- aro3ll">https://www.youtube.com/watch?v= kA- aro3ll</a> Watch this opening video – to introduce pupils to Arctic Pupils to create a KWL grid to think of different questions they would like to investigate.	Differentiation	Resources/ Key Questions	Next Steps/ Necessary Skills
Engage	To investigate how an iceberg changes over time	Memorable Experience – Make a giant iceberg! Freeze water in a large balloon or clear plastic bag overnight. Once frozen, remove and place in a large container of water. Observe how the iceberg sits in the water and how it changes over time. Explore questions such as 'What happens if you add salt to the iceberg? Why do you think there are air bubbles in your iceberg? Why do you think the ice moves as it melts? Is there anything else that you want to try out on your iceberg? Which part melts more quickly – the part above or below the surface?' Record children's observations and ideas using photographs, notes or videos. Children could also create smaller individual icebergs and make comparisons between them.		Water Ice Clear large container  What happens if you add salt to the iceberg? Why do you think there are air bubbles in your iceberg? Why do you think the ice moves as it melts? Is there anything else that you want to try out on your iceberg? Which part melts more quickly— the part above or below the surface?'	
Engage Geography	To be able to understand the position and significance of latitude, longitude, Equator, Northern Hemisphere,	Use globes and atlases to find and name both polar regions and other significant geographical features of the world. Use world maps to discuss, locate and mark on own maps latitude, longitude, Equator, Northern Hemisphere, Southern Hemisphere, the Tropics of Cancer and Capricorn, Arctic/Antarctic	LAPS – outlines of features marked on map MAPS – describe more basic features HAPS – challenge facts to include	Outline maps Atlases Feature marked outline maps  How are the Arctic and the Antarctic different?	



	Southern Hemisphere, the Tropics of Cancer and Capricorn,To label maps with geographical features		climate, physical features		
Engage Geography	Understand geographical similarities and differences between Arctic, Antarctic and UK.	Work in 'research teams' to identify the similarities and differences between the Arctic and Antarctic. Focus on physical features, animal and plant life. Research using computers, IPADS and atlases and information texts.  Plenary – Compare to UK – What are the major differences? (seasons, climate, animal, plant life)	SEN – as a group  LAPS/MAPS– paired gallery sign – choose appropriate language and key information  HAPS – Individual sign and use ambitious vocabulary and sentence style	Access to computers/IPADS Range of information texts  How are the Arctic and the Antarctic different?  What features can be found in the polar regions?	
Engage Geography	To understand how icebergs are formed and where and how they travel	Look at a range of weird and wonderful images of icebergs and ice formations. Compose their own research questions such as: How do icebergs form? Where do they go? Why are icebergs dangerous? Think of words to describe them and make an iceberg vocabulary list. Share ideas with others in the group and see who comes up with the most effective describing word.	SEN – cloze with key words  LAPS – key word list (ice berg, freeze, temperature, melting point, erosion, formation, crystal, compression)  MAPS – use of key words in explanations  HAPS – independently – write	Images of icebergs Video clips of icebergs detaching from ice shelf Frozen Planet from youtube  How do icebergs form? Where do they go? Why are icebergs dangerous?	



Develop Geography	To understand the key geographical vocabulary	Use a range of non-fiction texts to answer their own questions. Check out the meaning of specialist vocabulary such as ice shelf, calve, glacier, melt ponds and growlers, as they encounter them. List any interesting iceberg facts they discover during their reading.	an explanation why we don't see icebergs in the equatorial regions  LAPS – pupils to be given extracts with accessible texts in order to find definitions  MAPS – use the key vocabulary and explanation of each of them  HAPS – create a fact file about icebergs	Information books Use of IPADS What are ice shelves? Find the definitions of each of the key words.	
Develop Science	To describe how animals must be adapted to their habitats for survival, using a range of animals and their adaptations as examples.	<ol> <li>Choose a favourite animal from either of the polar regions and use a range of non-fiction materials to find out more about it. Describe how it has evolved and adapted to suit its habitat. Why has it had to adapt? Consider how it might need to adapt in the future as the human and environmental threats in polar regions increase.</li> <li>Children to produce a non-chronological report about an animal from the polar regions. Include appearance, food, adaptation, habitat etc. Organise appropriately using sub-headings, write in third person, present tense, use of appropriate vocabulary</li> </ol>	LAPS – pupils to produce key sentences about an animal  MAPS – organisation of the text using subheadings  HAPS – use of appropriate sentence openers/cohesive devices, ambitious vocabulary	Information books/extracts from Frozen planet Why and how have animals had to adapt to their habitat?	
Develop Science	Describe how animals must be adapted to their habitats for survival, using a range of animals and their	Construct food chains, for a chosen animal or plant from a frozen land, to show how species are interdependent on each other as food sources. Describe their diagram using scientific vocabulary such as energy source, autotroph or primary producer, herbivore or primary consumer, secondary consumer and top predator. Work to interlink individual food	LAPS – pupils to be provided with key creatures to organise into food chains  MAPS – Label each aspect of the food	Labels of scientific vocabulary Images of creatures/plants	



	adaptations as examples.	chains into a food web. Consider what impact the removal of one of the components in the food chain or web would have.	chain with scientific vocabulary  HAPS – Explain what impact the removal of one of the components in the food chain would have	How do animals survive in a polar habitat?
Develop Science	To recognise the importance of the classification system and its inception, giving reasons for how the groups and subgroups are chosen.	Find out about the biodiversity of the Arctic or Antarctic Ocean using information books and other sources of information. Make a list of similarities and differences. Select a favourite sea creature to research further – find facts, make drawings, label diagrams and keep notes about their favourite creature, creating a short information sheet about it for a classroom display.  (possibly use information for non-chronological reports)	LAPS – simple information sheet provided for pupils to extract answers to key questions MAPS – carry out research about a sea creature HAPS – similarities and differences between two	Information books IPADS etc  What can you find out about sea creatures?
Develop Art and Design	Create abstract forms choosing appropriate materials and tools, demonstrating the awareness and influence of a specific art genre.	Discover the beautiful artwork of the Inuit, the Arctic's indigenous people. Find examples of Inuit prints and carvings of birds, sea mammals, polar bears, seals, caribou and wolves.  1. Skills lesson on the types of creatures/images they can carve. How to carve soap.  2. Children to create a relief picture carving into a creature/create a carving into a soap image	LAPS – choose a relief picture and a very simple design MAPS – choose from a limited range of designs HAPS – free choice of 3D creature to carve	Soap Images of Inuit Art Carving tools How did the Inuit people create Artwork?
Develop Geography History	To investigate the indigenous people of the Arctic and Antarctic	Show children clip to introduce Inuit way of life <a href="https://www.youtube.com/watch?v=hcvPIRn5Ado">https://www.youtube.com/watch?v=hcvPIRn5Ado</a> Investigate how they live and how they source food. Label a picture of an inuit showing tools they use and what their clothes are made of.	LAPS – choose from a selection of labels MAPS – Label independently	Youtube clip Image of inuit Labels



			HAPS – explanation for each tool and what it is used for	How do Inuit people survive in polar conditions? How are their clothes and equipment adapted to help survive in the environment?
Develop English History	To make predictions about Robert Falcon Scott based on photographs	Look at a range of images of the explorer Robert Falcon Scott (known as Scott of the Antarctic) and make notes about what they can see. Discuss who this man might be, why he might be important, why he is wearing his particular clothing and when he might have lived.  Compare and contrast between Robert Scott and the Inuit people. Find similarities and differences in clothing and predict when he might have lived and make predictions based on him.	LAPS – show selection of photographs and key questions to answer  MAPS – analyse photographs and write notes  HAPS – prepare presentation about who they think he is	Presentation of Scott  Who was Robert Falcon Scott? Why did he become famous? What happened to him?
Develop English History	Retrieve, record and skillfully present relevant information from non-fiction, including leaflets, programmes and reviews.	Use internet and other historical source materials to consider the following questions: What would it have been like for Scott and his team as they travelled across the Antarctic? What conditions would they have faced? Why would things have been even harsher in Scott's day? Use a range of information sources to find out more about Scott, adding their findings to their initial notes.  Note  Captain Robert Scott's journal of the final months, days and hours of his doomed 1911–1912 expedition to the South Pole was found buried in his tent with the bodies of his remaining team. Choose an extract (available online from the British Library) to read to the children.	LAPS – specify website with specific questions to answer  MAPS – A range of websites to choose from with key questions  HAPS – independent research with headings	A range of websites Key questions  What would it have been like for Scott and his team as they travelled across the Antarctic? What conditions would they have faced? Why would things have been even harsher in Scott's day?



Develop English History	Select the most appropriate planning frame for the genre of writing, making note of precise vocabulary.	Imagine there is a section missing from Scott's diary, torn out and lost in the snow. If it were written in the last week of his doomed 1911–1912 expedition, what might it say? What sequence of events might have led to the expedition's devastating ending? Write a plan of their ideas, in chronological order.	LAPS – structured planning sheet with key headings with word list  MAPS – key events provided to include in the diary plan  HAPS – independent plan	Possible diary entry with missing page Key events to include  What sequence of events might have led to the expedition's devastating ending?	
Develop English History	Use more features of sentence structure to build up detail or express shades of meaning (e.g. varying word order, expanding verb phrases)	Develop their diary writing, using a checklist to ensure their writing shows the required features. Make sure they add enough detail to keep the reader interested, including varied sentence structures, rhetorical questions, vocabulary and punctuation. Consider what Scott was thinking and feeling at this time, including both his hopes and fears. Read their developing work to a partner, exchanging constructive comments for improvement.	LAPS – correct tense and first person  MAPS – ambitious vocabulary and rhetorical questions  HAPS – thoughts and emotions to add atmosphere	What could have happened on the missing day?	
Innovate	Spoken language Speak audibly and fluently with an increasing command of Standard English.  Writing Note and develop initial ideas, drawing on reading and research where necessary. Geography	Carry out Innovate activities over a series of lessons S.O.S Urgent Memo FAO: Rescue staff @ Ice Station 54 Deception Island, South Shetland (Antarctic Peninsula) CoastguardsThe holiday cruiser 'Sub Zero' (carrying 24 holidaymakers from Polar Expeditions) has hit densely packed ice off the coast of the Antarctic and is now lying on its side close to the South Shetland Islands (120 kilometres north of the Antarctic Peninsula 62°0'S, 58°0'W) in the Antarctic Ocean. Much of its equipment has been lost in the water with the icy impact damaging its rear propellers and engines.	Mixed ability groups	Innovate board Access to internet Atlases/maps/globes Plan of action worksheet Supply plan Environmental effects resources What is involved in an arctic rescue?	



## Holy Trinity Church of England Academy <u>Termly Plan</u> <u>Year Group 6</u>

Use maps,	You have a window of 12 hours maximum to devise a rescue
atlases, globe	s plan, after which it is estimated the ship will become
and	submerged and lives lost.
digital/comput	
mapping to lo	
countries and	•Use a world map, atlas or globe to locate the last known
describe featu	
studied.	kilometres from Deception Island to the South Shetland
	Islands.
Use the eight	Make a list of supplies needed to take on your rescue
points of a	mission. Remember you will need food, extra clothing, and
compass, four	
and six-figure	
references,	body? What should you do if you or one of your party begins
symbols and I	
(including the	
of Ordnance	•All food and water supplies aboard the Sub Zero have been
Survey maps)	
build their	water? Record your data in the most appropriate form for
knowledge of	
UK and the w	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
world.	•Create a detailed 12-hour plan of action organising both
50.15	people and resources for the rescue. Remember to check
PSHE	the impact of the Antarctic daylight hours (time zones) when
Talk and write	
about their	Passengers are panicking! Create a 'face time' message or
opinions and	radio transmission to restore calm. Remember to speak
explain their	audibly and fluently in Standard English as some of the
views, on issu that affect	passengers speak English only as a second language.  •Check the weather forecast! Use the web to find out the
themselves a	
society.	Is it safe for your team to travel? What safety precautions
Society.	might you need to take?
Science	•Engine oil from the Sub Zero has leaked into the ocean
Record data a	
results of	the surrounding wildlife and habitat?
increasing	and danied and habitat.



	complexity using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs.	•Rehearse your rescue mission! Follow navigational instructions, practising your orientation skills. Can you be the first to reach the passengers of the Sub Zero. Take a picture of the rescued passengers to send back to base.			
Express Computing English	Evaluate and improve presentations in the light of discussion, marking and audience response Prepare materials for a specific audience	Work in groups to create an informative presentation/scrapbook about either polar region using a presentation programme. Download images from their digital scrap books to add interest. Present to an audience and be prepared to answer questions that arise.	Groups/pairs	Presentation software Work they have produced during the topic  How can we present this information so it is suitable for younger children?	
Express PHSE	Explore a controversial or emotive issue, considering both sides of an argument before forming a personal view or opinion.	Watch the film Arctic Tale and consider whether the film makers presented their environmental message successfully. Carry out a debate afterwards to discuss whether we are looking after the Arctic and what can we do to help.	Whole class debate	Arctic Tale on DVD  What is the environmental message presented by the film?  What can we do to reduce the effects of environmental issues?	