

## Year 2- Arctic and Antarctica

<b>Term:</b>	Autumn 2
<b>Subject focus:</b>	Geography and Design Technology
<b>Non-Fiction:</b>	Explanation
<b>Fiction:</b>	Poetry



### Concepts

Geography	Design Technology
Global Citizenship	Technique/Evaluate

Following their learning about a place which is local to them, children are given the opportunity to explore a continent which is the complete opposite in terms of physical features. They are also given the opportunity to learn about a contrasting continent to that of Year 1, and they are able to make comparisons between the Arctic and Africa. These comparisons will help them to understand the world better and the different climates in the different parts of the world.

This topic gives children the opportunity to explore globes and atlases and ask questions about the continent, as well as revisit prior knowledge regarding the names of the continents around the world. One of the themes of this unit is the children as global citizens. They will learn about some of the impact climate change is having on the polar caps and how this effects the wildlife there, along with some of the effect on the wider world. This prepares them for when they study 'Saving Planet Earth' in Year 4- a much more in-depth study of how the planet is changing due to climate change and pollution. This theme is developed in further KS2 topics, for example learning about the deforestation of the Amazon rainforest and its effects, and the influence Europe has had on the rest of the world.

Children learn about the exploration and discovery of the polar regions, including the achievements of Matthew Henson, building on the children's understanding of the achievements of people from ethnic minority groups around the world and through time.

In D&T children will have the opportunity to develop their textiles skills learnt in Year 1, learning how to join materials to create a pair of gloves, developing their stitching skills further.

<h2 style="text-align: center;">Geography</h2> <h3 style="text-align: center;">National Curriculum</h3>		
<b>Geography</b> <ul style="list-style-type: none"> <li>I can use world maps, atlases and globes to identify the UK and its countries, continents and oceans studied in this key stage.</li> <li>I can name and locate the world's seven continents.</li> <li>I can identify seasonal and daily weather patterns in the UK and the location of cold areas of the world in relation to the North and South Poles.</li> </ul>	<b>Design Technology</b> <ul style="list-style-type: none"> <li>I can evaluate and assess existing products and those that have been made using a design criterion.</li> <li>I can investigate different techniques for stiffening a variety of materials and explore different methods of enabling structures to remain stable.</li> </ul>	<b>Computing</b> <ul style="list-style-type: none"> <li>I can use technology purposefully to create digital content comparing the benefits of different programs.</li> </ul>
<h3>Year 2</h3> <h4>Geography</h4> <h4>Arctic and Antarctica</h4>		
<h4>Foundation subject Knowledge and skills</h4>		
<b>Where in the world?</b> <ul style="list-style-type: none"> <li>Know that there are 7 continents in the world</li> <li>Know that the continents are Europe, Africa, Asia, North America, South America, Australia and Antarctica</li> <li>Know that continents are a group of countries in the same region</li> <li>Use an atlas to locate the 7 continents</li> <li>Use a globe to locate the 7 continents,</li> <li>Use an atlas to locate Antarctica and the Arctic.</li> <li>Know that the Arctic is a polar region located at the northernmost part of Earth. The Arctic consists of the Arctic Ocean, adjacent seas, and parts of Alaska, Finland, Greenland, Iceland, Northern Canada, Norway, Russia and Sweden</li> <li>Know that Antarctica is a unique continent in that it does not have a native population. There are no countries in Antarctica, although seven nations claim different parts of it: New Zealand, Australia, France, Norway, UK, Chile and Argentina</li> </ul>		
<b>Physical Features</b> <ul style="list-style-type: none"> <li>Know what the word climate means</li> <li>Know the difference between the weather and climate</li> <li>Know what a climate zone is</li> <li>Know that Greenland and Finland (as examples) are in a cold/Polar climate zones</li> <li>Know that the UK has a temperate climate and what this means</li> <li>Know that the Antarctic is a continent surrounded by the Southern Ocean</li> <li>Know that Antarctica is the highest, driest, windiest, emptiest, coldest place on earth</li> <li>Know that Antarctica is known as the 'frozen continent'.</li> <li>Know that Antarctica has no cities or villages. The only settlements that exist are 'research bases' where Scientists go and research what the Antarctic is like</li> </ul>		

	<ul style="list-style-type: none"> <li>• Know that Emperor penguins, seals and other species of birds live in Antarctica</li> <li>• Know that the size of Antarctica keeps changing. It is bigger in winter than in summer because of large amount of sea ice that forms.</li> <li>• Know that Antarctica is in a Polar climate zone</li> <li>• Know which animals can survive in Antarctica</li> <li>• Know the monthly weather patterns and temperature for a Polar climate zone</li> <li>• Compare climates in a temperate climate zone and a Polar climate zone</li> <li>• Understand what climate change is and some of the main causes</li> <li>• Over recent years, the Arctic region has shrunk due to climate change</li> <li>• Understand some ways that we can help to reduce climate change</li> <li>• Small shrubs can grow in warmer parts of the Arctic, as well as various herbs, mosses and lichens</li> <li>• A number of different types of animals make their home in the arctic, including polar bears, wolverines, squirrels, birds, walrus and seals</li> </ul>
<b>Human Features</b>	<ul style="list-style-type: none"> <li>• Indigenous people who live in the Arctic have adapted to the cold weather and harsh environmental conditions.</li> <li>• Know that the first explorers to reach the North Pole were Matthew Henson and Robert Peary.</li> <li>• Know about the life of Matthew Henson and achievements in exploration</li> <li>• Know that Peary was awarded the Hubbard Medal in 1906 however, Henson did not receive it until 2000, long after he died in 1955</li> <li>• Have an understanding of the injustice in Henson not being recognised for his achievement because he was African American until years later and he is now recognised as being the first man to reach the North Pole</li> <li>• Know about the first expedition to the South Pole, led by Roald Amundsen</li> </ul>
<b>Comparison with UK</b>	<ul style="list-style-type: none"> <li>• Know that during the summer some of the ice melts</li> <li>• Know that the amount of ice that melts has an impact on the rest of the world</li> <li>• Compare the climate of the polar regions to UK, including the difference in seasons and temperature changes</li> <li>• Compare the terrains of the polar regions to the UK</li> <li>• Compare the wildlife in the polar regions with that found in the local area</li> <li>• Have an understand of what they can do to help reduce climate change in their every day life e.g. use less plastic, walk more often</li> </ul>

## Design Technology

### Year 2

#### Design Technology: Textiles

<b>Year 2</b>	<ul style="list-style-type: none"> <li>• Product analysis of a range of different gloves e.g. medical, woollen, leather, football, bike riding, oven gloves etc</li> <li>• Discuss the usage of them and the materials they are made from</li> <li>• Discuss and evaluate the suitability of the materials used</li> <li>• Children to design a pair of gloves which could be used in cold weather, thinking about the properties of the materials they will use</li> <li>• Children learn basic sewing stiches e.g. running stitch and practise sewing fabric together</li> <li>• Children make a template to use when making their gloves</li> <li>• Use sewing techniques to make a prototype of a pair of gloves</li> <li>• Children evaluate their prototypes and discuss how they would modify them if they were to make the gloves</li> </ul>
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Writing Outcomes	
Non-Fiction	Fiction
Explanation Text-life cycle of a penguin	Poetry using similes, noun phrases, alliteration



## Writing workshop

### Fiction

#### Previous knowledge and skills

Year	Topics and outcomes
Nursery	Nursery Rhymes Rhyming stories
Reception	Nursery Rhymes Rhyming stories
Year 1	<b>Now and Then:</b> Poem using similes

### Year 2

#### Writing Workshop: Poetry

Text: Rainbow Bear

Outcome	<b>Poetry using similes, noun phrases, alliteration</b>
Purpose	To entertain/To recreate and experience/To create an experience
Text Structure	Structure ideas in clear verses Verses are linked Merge the features of different types of poetry to add extra interest to the structure Clarity and emphasis by varying length, structure and subject of sentences
Language Features	Correct style for the subject Maintain reader's attention Convey clear mood and imagery Wide range of vocabulary Use of repetition for effect Use of literary features
Expected SPaG	Expanded Noun Phrases for description Adjectives Apostrophe Comma

#### Links to future learning

Year 3	<b>Disaster Strikes:</b> Onomatopoeia
Year 4	<b>United Kingdom:</b> Rhyming couplets
Year 5	<b>Remembering Heroes:</b> Personification and metaphors
Year 6	<b>Water Friend or Foe:</b> Figurative language to create mood and tension