

Unit of Work	The Frozen Kingdom
Text Driver	  Shackleton's Journey Geographical Association: Living in the Freezer. Investigating polar environments.
NC Objectives	KS2 - locate the world's countries, using maps to focus on Europe (including the location of Russia) and North and South America, concentrating on their environmental regions, key physical and human characteristics, countries, and major cities KS2 - describe and understand key aspects of physical geography, including: climate zones, biomes and vegetation belts, rivers, mountains, volcanoes and earthquakes, and the water cycle KS2 - describe and understand key aspects of human geography, including: types of settlement and land use, economic activity including trade links, and the distribution of natural resources including energy, food, minerals and water KS2 - use maps, atlases, globes and digital/computer mapping to locate countries and describe features studied

Unit of Work Summary	During the unit of work the children will learn about biomes, climate zones, time zones in relation to the study of the Arctic and Antarctica. They will learn about key historical explorers such as Shackleton and today's explorers including Al Sylvester.
Prior Learning	In KS1 the children will have learned about They have learned about hot and cold areas of the world in relation to the equator and they know about seasonal and daily weather patterns in the United Kingdom. In mapping skills children should be able to use world maps, atlases and globes to identify the UK and its countries as well as the countries, continents and oceans studied at this key stage. Children will also have used simple compass points (North, South, East and West) and locational language to describe the location of features and routes on a map.
Sticky Knowledge	• To know that a biome is a natural area of plants and animals. • To know that the world is divided into lots of different biomes and they are all different depending on their climate. • To know that the Tundra is the coldest biome and therefore has little plant and animal variety. • To know that the Tundra biomes cover approximately one fifth of the Earth's surface. • To know that there are two main polar regions in the world, which are the Arctic and the Antarctic. • To know that polar habitats are located in the very north and very south of the globe - the two pole ends of the Earth. • To know that the northern polar region is called the Arctic, and in the south the polar region is the continent of Antarctica. • To know that the Arctic Circle and Arctic Tundra are found at the North Pole, and it covers nearly 5 million square miles of the top of the Northern Hemisphere. • To know that the Polar and tundra environments cover 1/4 of the Earth's surface. • To know that cold, sinking air creates freezing winds in these high latitude environments. Due to their locations on, or close to, the poles the sunlight is thin. At the most upper latitudes, the sun does not rise for several months each year.

	• To know that the climate of the Arctic is characterised by long, cold winters and short, cool summers. • To know that some parts of the Arctic are covered by ice (sea ice, glacial ice, or snow) year-round, and nearly all parts of the Arctic experience long periods with some form of ice on the surface. • To know Antarctica is the coldest continent on Earth. The average temperature in the interior throughout the year is about -57°C, with the minimum temperature being -90°C during the winter season. Although the coast is warmer and temperatures can reach a maximum of between -2°C and 8°C during the summer. • To know the 4 climate zones of the world - four major climatic belts—equatorial, tropical, mid-latitude and arctic (Antarctic), which are dominated by equatorial, tropical, polar and arctic (Antarctic) air masses respectively. • To know about the expedition of Shackleton and fellow explorers to Antarctica in 1901-1916. • To know about the expedition of the South Pole by Al Sylvester.												
New Vocabulary	<table border="1"> <tr> <td>Biome</td><td>Environment</td></tr> <tr> <td>Meridian</td><td>Poles</td></tr> <tr> <td>Latitude</td><td>Arctic Circle</td></tr> <tr> <td>Tropics</td><td>Antarctica</td></tr> <tr> <td>GMT</td><td>Longitude</td></tr> <tr> <td>Polar</td><td>climate</td></tr> </table>	Biome	Environment	Meridian	Poles	Latitude	Arctic Circle	Tropics	Antarctica	GMT	Longitude	Polar	climate
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Post Learning

In Year 5 children will go on to learn about the effects of climate change on the polar environments. They will consider the key questions:

What are the physical changes?

What can be done to slow climate change down?

How can we help as the next generation?

Children will learn in Year 6 that Antarctica is the only continent that doesn't have rainforest. (Year 6 Rainforest unit of work.)

