



ROSE WOOD ENQUIRY DRIVEN CURRICULUM



**Why is it difficult for life to survive in the Polar Regions?  
Year 3 Autumn Term 2**

## Rose Wood Academy: Enquiry Driven Learning Overview

<b>Year Group:</b> Y3	<b>Enquiry Question:</b> Why is it difficult for life to survive in the Polar Regions?	<b>Term:</b> Autumn 2
<b>Context:</b> <p>In this enquiry, children will be introduced to the concept of what a biome is and the impact that human activity is having on our world. They will build on their knowledge of the 7 continents and 5 oceans to locate the Polar region. Children will understand the difference between weather and climate and will be introduced to the main lines of latitude (Equator, Tropic of Cancer and Tropic of Capricorn. They will use their knowledge of food chains to learn about the feeding habits of polar bears, their main source of food and how they catch it. They will have a greater understanding of how global warming is affecting the world and the habitats of some of the world's inhabitants.</p>		
<b>Prior Learning (Direct Pathway)</b> <b>Geography:</b> <ul style="list-style-type: none"><li>• Seasonal weather patterns (Y1)</li><li>• Equator, North and South Poles, World's seven continents: Europe, North America, South America, Africa, Asia, Oceania and Antarctica. (Y2)</li><li>• The world's five oceans: Atlantic Ocean, Pacific Ocean, Indian Ocean, Southern Ocean and Arctic Ocean (Y2)</li><li>• Know that different parts of the world have different climates (previous topics on Captain Cook and the Kenyan Savannah in KS1)</li></ul> <b>Science:</b> <ul style="list-style-type: none"><li>• Animals including humans – food chains</li></ul>		
<b>Prior Learning (Indirect Pathway)</b> <b>Science:</b> <ul style="list-style-type: none"><li>• Deciduous and evergreen trees (Y1)</li><li>• Plants and what they need to grow (Y2)</li></ul>		

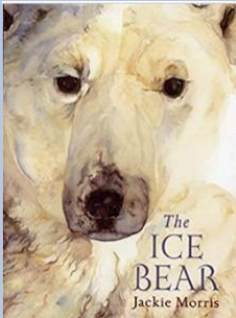
## Rose Wood Academy: Enquiry Driven Learning Overview

In music, we will learn the songs and musical accompaniments for a performance of 'Eddie the Penguin Saves the World'

As artists, we will learn about the artist and scientist Edward Wilson and learn about the art they created while in Antarctica. We will learn watercolour painting techniques to paint snow and ice before creating our own Antarctic inspired watercolour paintings

### Enquiry Question

Why is it difficult for life to survive in the Polar Regions?



### Content on Direct Pathway

We will be reading the 'The Ice Bear' by Jackie Morris, a magical tale of trickery, loss and restoration that reminds us that we are caretakers of wild creatures, and our actions directly affect their future. We will learn about Polar Bears, their habitat and their prey. As scientists we will learn about food chains. We will find out about the Arctic and Antarctic and learn how animals and people survive in such a hostile climate and conditions.

Through geography we will describe and understand key aspects of climate zones, biomes, vegetation belts.

Pupils will broaden their subject knowledge through the reading of non-fiction texts. Drafting and editing narration to accompany a short film, inspired by the magical tale of 'The Ice Bear'. They will role-play the characters of the Inuit hunter and his wife and the polar bear whose cub is stolen, and discuss feelings and empathise with characters.

Pupils will Create an information booklet, answering the unit question, 'Why is it difficult for life to survive in the Polar Regions?'

### Learning Showcase

Performance for parents of 'Eddie the Penguin saves the World'.

## **Rose Wood Academy: Enquiry Driven Learning Overview**

### **Knowledge Narrative**

A biome is an area of the world with similar plants, animals and climate. The polar biomes are cold and dry all year round and they are the coldest places on Earth. The Arctic Circle is located in the Northern hemisphere and Antarctica is located in the Southern hemisphere. Human activity is causing the planet to warm up (climate change) and this could lead to animals such as polar bears becoming extinct.

## Rose Wood Academy: Enquiry Driven Learning Overview

### Unit Title: Why is it difficult for life to survive in the Polar Regions?

Y3  
Autumn 2

#### End Point - The aim of this unit is for pupils to:

- know the impact of climate change and human activity on the world's polar regions
- understand the environment in the Arctic and Antarctic Circles
- name and locate the equator, north and southern hemispheres, tropic of Cancer and Capricorn, Arctic and Antarctic circles
- To understand the difference between weather and climate

#### End of unit assessment task:

Create an information booklet, answering the unit question (ensure focus on the hostility of the environment and impact of climate change on animals, who live in these regions).

#### Links:

Text - 'The Ice Bear' – Jackie Morris

Text - 'The Ice Palace' – Robert Swindells

#### Prior Learning:

- Seasonal weather patterns (Y1)
- Equator, North and South Poles, World's seven continents: Europe, North America, South America, Africa, Asia, Oceania and Antarctica. (Y2)
- The world's five oceans: Atlantic Ocean, Pacific Ocean, Indian Ocean, Southern Ocean and Arctic Ocean (Y2)
- Know that different parts of the world have different climates (previous topics on Captain Cook and the Kenyan Savannah in KS1)

#### Key Aspects of the Unit:







Map and atlas work/Fieldwork and investigation



Location

## Rose Wood Academy: Enquiry Driven Learning Overview

	<b>Physical Features:</b> Understand that physical features are natural features in an environment. Understand that physical features can include: beach, cliff, coast, forest, hill, mountain, sea, ocean, river, soil, valley, vegetation, season and weather and volcanoes.
	<b>Human Features:</b> Understand that human features are features in an environment that have been made by people. Understand that human features can include: city, town, village, factory, farm, house, office, port, harbour and shop.
	<b>Physical Processes</b> Impact of nature on the earth e.g. erosion, plate tectonics, water cycle.
	<b>Human Processes:</b> Understand the processes that humans have developed across the globe including travel trade and economics.

### Key Knowledge:

- Know about the Arctic biome.
- For children to be able to answer the following questions on the Arctic (tundra) Biome:

- What is the biome like?
- Where is this biome found?
- What is its climate?
- Which animals live there?
- Which plants live there?

*The tundra is the coldest biome in the world, is very dry, and has only two seasons. The winters are very long and dark, which makes it difficult for plant to survive. Animals that live in the tundra include polar bears and seals.*

- Know the location of the equator, Tropics of Cancer and Capricorn
- Know the location north and southern hemispheres
- Know the significance of the equator on climate
- Understand the term 'climate'
- Know what climate zones are
- Know the location of the Arctic and Antarctic Circle
- Know that the Arctic Circle is located in the Northern hemisphere and Antarctica is located in the Southern hemisphere.
- Know that the Arctic Circle is a frozen ocean surrounded by land
- Know that Antarctica is a frozen continent surrounded by ocean
- Know, name and locate the countries within the Arctic Circle

## Rose Wood Academy: Enquiry Driven Learning Overview

- Know the key reasons that make the Polar regions hostile for human habitation
- To begin to understand the impact of climate change on polar regions
- Know that humans are causing global warming
- Know the effect of climate change on animal life in the Arctic Circle (focus on Polar Bears linked to POR text – The Ice Bear)
- To make comparisons between the climate and land use in the Polar regions and in the UK

### Geographical Skills:

#### Mapping:

- Locate a broader range of places on large scale maps
- Experience a wider range of maps of different scales
- Begin to use atlases to find out about other features of places (e.g. the hottest part of the world)

#### Fieldwork:

- Understand the four compass points and begin to use them to follow routes

### Vocabulary

Climate	The general weather conditions that are typical
Biome	A natural area of vegetation and animals
Tundra	A large, barren region with no trees.
Weather	The condition of the atmosphere at a particular place and time, such as the temperature, and if there is wind, rain, sun, etc.
Equator	An imaginary line around the middle of the Earth at an equal distance from the North Pole and the South Pole
Tropic of Cancer	an imaginary line around the earth parallel to the equator and to the north of it
Tropic of Capricorn	an imaginary line around the earth parallel to the equator and to the south of it
Northern Hemisphere	The section of the Earth that is north of the Equator
Southern Hemisphere	The section of the Earth that is south of the Equator
Arctic	The Arctic is the region around the North Pole
Antarctica	The Antarctic is the earth's southernmost continent. It's the icy region around the South Pole.
Sea	A large body of salty water
Ocean	A huge body of salty water
Environment	Everything around us - the natural world of land, sea, air, plants and animals
Continent	A very large area of land that consists of many countries, such as Europe

## Rose Wood Academy: Enquiry Driven Learning Overview

<b>Year Group:</b> Year 3	<b>Term:</b> Autumn 2
<b>Title:</b> Why is it difficult for life to survive in the Polar Regions?	<b>Key Focus:</b> Geography
<b>Project Enhancements:</b> <ul style="list-style-type: none"><li>• Performance for parents of 'Eddie the Penguin saves the World'.</li></ul>	
<b>How can you help?</b> <p>At home, please could you:</p> <ul style="list-style-type: none"><li>• continue to listen to your child read a minimum of three times a week,</li><li>• help your child to learn to recognise and spell different phonemes (sounds) and graphemes (the way the sound is written down)</li><li>• help your child to learn their times tables (10x, 5x, 2x, 4x, 8x, and 3x)</li></ul> <p>If you wish to do additional homework with your child, you could:</p> <ul style="list-style-type: none"><li>• Investigate the properties of ice.</li><li>• Find out about the history of Arctic exploration.</li><li>• Find out about the history of Inuit culture.</li></ul>	



## Rose Wood Academy: Enquiry Driven Learning Overview

SUBJECT: SCIENCE			
Subject Specific Vocabulary			
Word	Definition	Declarative Knowledge	Aspect
<b>Biology</b>	Learning about living things		Biology
<b>Food chain</b>	a series of living beings in which each serves as food for the next.	Children will know that polar bears are at the top of the Arctic food chain	
<b>Producer</b>	Producers are organisms that make their own organic nutrients (food) - usually using energy from sunlight.		
<b>Consumer</b>	All the other organisms in a food chain because they get their energy from eating other organisms.		
<b>Predator</b>	An animal that hunts other animals for food		
<b>Prey</b>	An animal that is hunted, or caught, for food, usually by another animal.		
		Procedural Knowledge	
		Children can construct and interpret a variety of food chains, identifying producers, predators and prey.	

## Rose Wood Academy: Enquiry Driven Learning Overview

### Spiritual

Sense of enjoyment and fascination in learning about themselves, others and the world around them

### Social

Appreciate diverse points of view and be able to discuss the effects of global warming on the ice caps.

### Be kind and REAP the rewards

Empathise with harsh conditions of people who live within the Arctic Circle and compare those with our own. Have pride in work and our achievements.

### Moral

Discuss human impact on global warming and the importance of protecting our planet for animals, plants and future generations.

### Cultural

Explore the Inuit culture and have a better understanding of the way different communities function and be able to respect these differences.

**Rose Wood Academy: Enquiry Driven Learning Overview**  
**British Values through EDC**

<p style="text-align: center;"><b>Democracy</b></p>	<p>We will discuss how governments are important if changes are to be made to stop global warming. It is therefore important to vote in an election and understand the policies of each party.</p>
<p style="text-align: center;"><b>The Rule of Law</b></p>	
<p style="text-align: center;"><b>Individual Liberty</b></p>	<p>We will discuss the meaning of individual liberty (each of us having the freedom to make our own choices and do what we want, within reason.) We will discuss the individual choices that we can make in order to save our planet from global warming.</p>
<p style="text-align: center;"><b>Mutual Respect</b> <b>Tolerance of those of different faith and beliefs</b></p>	