

**Hook:**  
Look at a range of images of different icebergs and ice formations. Make an iceberg at home and bring it in! Use a variety of different containers.


**Frozen Kingdom**  
**Focus: Science / Geography**


**Knowledge:**  
 What are the polar regions? What are the features of the polar regions? How are they similar/different?  
 Which countries are in the Arctic circle?  
 Where is the equator/tropic of cancer/Capricorn/ northern and southern hemisphere? What is it like?  
 What are different time zones? How do they work?  
 How do people survive in the polar regions? How is it different to how we live?  
 Who has travelled to the Antarctic? How has it changed?  
 Which animals live in the arctic/Antarctic?  
 What features do the animals have?  
 How have the animals adapted to survive?  
 What is evolution?  
 How are animals being affected by humans?  
 How could they adapt?

**Learning Journey: Poles**  
 Use globes and atlases to find and name the polar regions and significant geographical features of the world. Make a simplified global map showing the locations and create a key—look at time zones.  
 Identify the similarities and differences between the Arctic and Antarctic—present data in digital scrapbook.

**Learning Journey: Polar people**  
 Consider how life is different to Leicester - research for people in different regions (revisit learning about the Sami people from Yr3).  
 Northern Lights—how are they caused? Myths surrounding them.

**Learning Journey: Animals and Food chains**  
 Research an animal from either of the polar region—use nonfiction texts to find out about it. Find out how it has evolved and adapted to survive.  
 Charles Darwin—theory of evolution .  
 Create food chains to show how they are interdependent on each other as food sources. Create food webs and discuss what would happen if different variables were taken out.

**Vocabulary:**

Latitude	Polar
Longitude	Ice sheet/shelf/cap
Equator	Producer
Northern and southern Hemisphere	Consumer
Tropics of Cancer and Capricorn	Predator
Arctic and Antarctic circle	Prey
Prime/Greenwich Meridian	Evolution
Expeditions	Adaptation
Glacier	Food chain
Iceberg	Food web
Inuit	Thermometer
Region	

**Learning Journey: Oceans and environment**  
 Find out about the biodiversity of the arctic/Antarctic ocean—make a list of similarities and differences. Research a sea creature. Look at general environmental threats to polar regions (ice caps/increase in temperature/ impact of travel and industry/pollution) and how animals might adapt to survive. Write a discussion  
 Classify plants and animals and microorganisms according to common observable characteristics—reason.

**Characteristic foci:**

**Skills:**  
 Record data and results of increasing complexity  
 Use classification keys, table, scatter graphs and bar charts  
 Research animals.  
 Draw food webs and food chains.  
 Write discussion using scientific knowledge  
 Use the 8 points of compass  
 Use 4 and 6 figure grid references  
 Use maps, atlases, globes and digital computer mapping to locate countries and describe features.  
 Make comparisons  
 Locate places on a map

**Curriculum Coverage:**  
 Identify how animals and plants are adapted to suit their environment in different ways and that adaptation may lead to evolution.  
 Describe how living things are classified into broad groups according to common observable characteristics and based on similarities and differences, including microorganisms, plants and animals  
 Give reasons for classifying plants and animals based on specific characteristics.  
 recognise that living things have changed over time and that fossils provide information about living things that inhabited the Earth millions of years ago recognise that living things produce offspring  
 Identify the position and significance of latitude, longitude, Equator, Northern and Southern Hemisphere, Tropic of Cancer and Capricorn, Arctic and Antarctic Circle, Prime/Greenwich meridian and time zone (including day and night)  
 Location of cold areas of the world in relation to the Equator and North and South Pole and of as.  
 Understand geographical similarities and differences through studying the human and physical geography of a small area of the UK and of a small area of a non European country

**Learning Journey: Explorers**  
 History of polar exploration –discuss how polar exploration has changed overtime and why.  
 Plan a polar expedition as a wildlife filmmaker—include what they would see and do, what they would take and why.  
 Build a tent and record the temperature inside and out.

**Trip / Visitor:**  
 Build a campfire as polar explorers

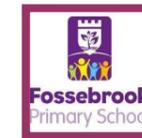
**Display Plan:**  
 Artwork, research, fact files

**Outcome:**  
 Create a David Attenborough style documentary about a polar animal (either from Arctic or Antarctic)  
 Greenscreen!



# Frozen Kingdom

## Focus: Science / Geography



### What do they already know?

#### Year 1

- What are the 7 different continents?
- What are the 5 different oceans?
- Can you locate the continents/oceans on a map?
- How many oceans and continents are there?
- What continent do (animal) live on?
- Where can they be found?
- Why does a \_\_\_\_\_ live in a cold/hot place?

- What are the 5 different animal groups?
- What animals fit into each group?
- What features are specific to each animal group?
- Describe each animal group
- Where do they live?
- What is their habitat like?

#### Year 2

- What are the 5 oceans called?
- Where is each ocean located?
- What is a human feature?
- What is a physical feature?
- What are the 4 compass directions?
- What is a map?
- Why do we use a map?
- What is a key?
- What is a bird's eye view?
- What is a continent?
- What are the 7 continents?

- What is a food chain?
- What does a plant need to grow and stay healthy?
- What do humans and animals need to survive?
- What is a habitat?
- What is a micro-habitat?
- Why do different animals need different habitats?
- What is offspring?
- Where do animals get their food from?

#### Year 3

- Where do animals (including humans) get their food from?
- What is a skeleton? - What are the main functions of the skeleton?
- What is a muscle?
- What are the main functions of the muscles?

#### Year 4

- What are counties?
- What are cities?
- Where in the world is the United Kingdom?
- What are the topographical features of an area?
- What is land-use patterns?
- How have the features of an area changed over time?
- What are climate zones?
- What is a food chain?
- What are the producers, predators and prey in food chains?

#### Year 5

- What are the 8 points of a compass?
- What is 6 figure grid referencing?

- What is the life cycle of a mammal/ amphibian/ insect /birds?
- How do plants reproduce?
- What is the lifecycle of a plant?
- What is the name of the reproductive organs in plants?

### How will they remember it?

Mini Quizzes

Add to Kaboom pot

Reading texts around the subject (links to English / GR)

Display

Memorable experiments with clear conclusions

### Which resources will I need?

Greenscreen

Globes

Maps

Atlases

Ipads

Non fiction books

Laptops

Art materials

### What do I need to know to be able to teach this?

Features of Arctic and Antarctic

Time zones and map features

Animals and people that live in each

Adaptations

Environmental threats

Life cycles

Polar explorers—present and past