

**NC/PoS:**

**Locational knowledge**

- identify the position and significance of latitude, longitude, Equator, Northern Hemisphere, Southern Hemisphere, the Tropics of Cancer and Capricorn, Arctic and Antarctic Circle, the Prime/Greenwich Meridian and time zones (including day and night)

**Human and physical geography**

- describe and understand key aspects of:
- physical geography, including: climate zones, biomes and vegetation belts, rivers, mountains, volcanoes and earthquakes, and the water cycle
- 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

**Geographical skills and fieldwork**

- use maps, atlases, globes and digital/computer mapping to locate countries and describe features studied
- use the eight points of a compass, four and six-figure grid references, symbols and key (including the use of Ordnance Survey maps) to build their knowledge of the wider world
- use fieldwork to observe, measure, record and present the human and physical features in the local area using a range of methods, including sketch maps, plans and graphs

**Prior Knowledge -**

LKS2: continents, the equator and weather.

UKS2 : climate, deforestation and the benefits of recycling.

**End Points -**

Identify the polar regions on a world map

Know that there are 5 imaginary lines around the Earth – Arctic Circle, Tropic of Cancer, Equator, Tropic of Capricorn, Antarctic circle.

Know that the Arctic is a cold desert located in the northernmost part of the planet.

Know that Antarctica is located at the southernmost part of the planet.

Know that the Antarctic is an ice covered continent, surrounded by the Southern Ocean.

Identify key human and physical features in Antarctica.

Know that the biomes found in Antarctica are – Tundra and polar desert.

Know what climate change is and the impact it has on the world.

Understand reasons for glaciers melting and the impact on specific ecology, climate change, biomes.

Know the possible global impact of climate change on Antarctica.

**Key Vocabulary -**

Continent, equator, longitude, latitude, northern hemisphere, southern hemisphere, Tropic of Cancer, Tropic of Capricorn, Arctic Circle, Antarctic Circle, biome, tundra,

polar desert, glacier, ice sheet, climate, marine life, climate change, ice shelves, marine, sea level, coastal, population, industrial, greenhouse gases, transportation, manufacturing, construction, agriculture.

### **Session 1**

Recap: 7 continents and 5 oceans (KS1 prior learning)

*Where in the World is the Arctic and Antarctic?*

Use locational vocabulary to describe where the Arctic and Antarctic are.

(LKS2 8-point compass. UKS2 16-point compass)

Which hemisphere are they each found?

Where are they in relation to the equator? What does this mean?

In relation to all 5 imaginary lines around the Earth (LKS2 find and name. UKS2 use the language of longitude and latitude and Greenwich Meridian)

### **Session 2**

Recap – Where in the world the Arctic and Antarctic are.

*Why is Antarctica a continent but the Arctic isn't?*

The Arctic is only ice (ice sheets and glaciers) whereas the Antarctic has ice ON rock.

Which animals are found at each? (land and marine)

What would happen to these animals if the ice melted? (LKS2 simple cause and effect. UKS2 what effect would this have on humans as well as the animals?)

### **Session 3**

Recap – Arctic or Antarctic animals

*What is it like in Antarctica?*

LKS2 – differentiate between weather and climate. Discover what tundra and polar desert mean. How much ice is there?

Suggested website – [Ducksters.com](http://Ducksters.com) Antarctica, BAS Antarctic factsheet, BBC Bitesize

UKS2 – Use the language of 'biomes' in relation to climate. Why is an area covered in ice, which is made of water, considered a desert? Longitude position, population, cities, area, night and day.

### **Session 4**

Recap – what it is like in Antarctica.

*What is climate change?*

Suggested video – [ypte.org.uk/videos/climatechange](http://ypte.org.uk/videos/climatechange)

Look at data related to climate change. LKS2 = Bar and line graphs. UKS2 = pie charts and scatter graphs.

What does the data show us?

### **Session 5**

Recap – What is climate change?

*What are the effects of climate change on Antarctica?*

Background for teachers – [www.wri.org/insights/5-visible-signs-climate-change-antarctica](http://www.wri.org/insights/5-visible-signs-climate-change-antarctica)

LKS2 = What will happen to the penguins and other wildlife if their habitat is destroyed?

UKS2 = Look at the 5 effects on Antarctica (human and physical) Consider – is this a problem?

Session 6

Recap – How Antarctica will change due to climate change?

*How will what is happening in Antarctica going to affect us?*

Discuss rising sea levels around the world. UKS2 – which areas of the UK will be flooded?

Rise of extreme weather events – how these affect communities.

Session 7 – Fieldwork Enquiry

Recap how global warming will affect the world?

*What can we do to stop / slow global warming?*

Useful illustrator to inspire interest = NASA time-lapse photography of the Antarctic