

Who Lives in Antarctica?

Overview

Children will learn about latitude and longitude and how this links to climate. They will consider the tilt of the Earth and how this impacts the Antarctic circle and global temperature. They will explore the physical features of a polar region and how humans have adapted to working there, taking into account that there is no permanent population. The children will study Shackleton's expedition before planning their own, using mapping skills learnt so far.

Essential Knowledge

Understand the position and significance of the lines of latitude

Define what climate zones are

Understand that the Northern and Southern Hemispheres experience seasons at different times

Describe human and physical features of Antarctica

Use four-figure grid references

Plan a route on a map using the eight points of the compass

Hook into a Book



Activate Prior Knowledge

EY

- Talk about similarities and differences in relation to places, objects, materials and living things
- Make observations of the environment and explain why some things occur and talk about changes
- Use everyday language to talk about positions and distance to solve problems
- Draw information from a simple map

KS1

- Name the seven continents and five oceans
- Human and physical geography of the local area and another non-European country
- Know the four seasons of the UK, what weather means and how different parts of the world experience different weather conditions often caused by their location.
- Know the Equator is an imaginary line around the middle of the Earth
- Using locational language and the compass points (N, S, E, W) to describe the location of features on a map and plan routes

Links to Future Learning

- Locating key human features in countries studied.
- Identifying significant environmental regions on a map.
- Using maps to show the distribution of the world's climate zones
- identifying the location of the Prime/Greenwich Meridian and time zones (including day and night) and explaining its significance.
- Using longitude and latitude when referencing location in an atlas or on a globe.
- To know the Prime/Greenwich Meridian is a line of longitude which goes through 0° and determines the start of the world's time zones.
- Accurately using 4 and 6-figure Grid References to locate features on a map in regions studied.
- Planning a journey to another part of the world using six figure grid references and the eight points of a compass.

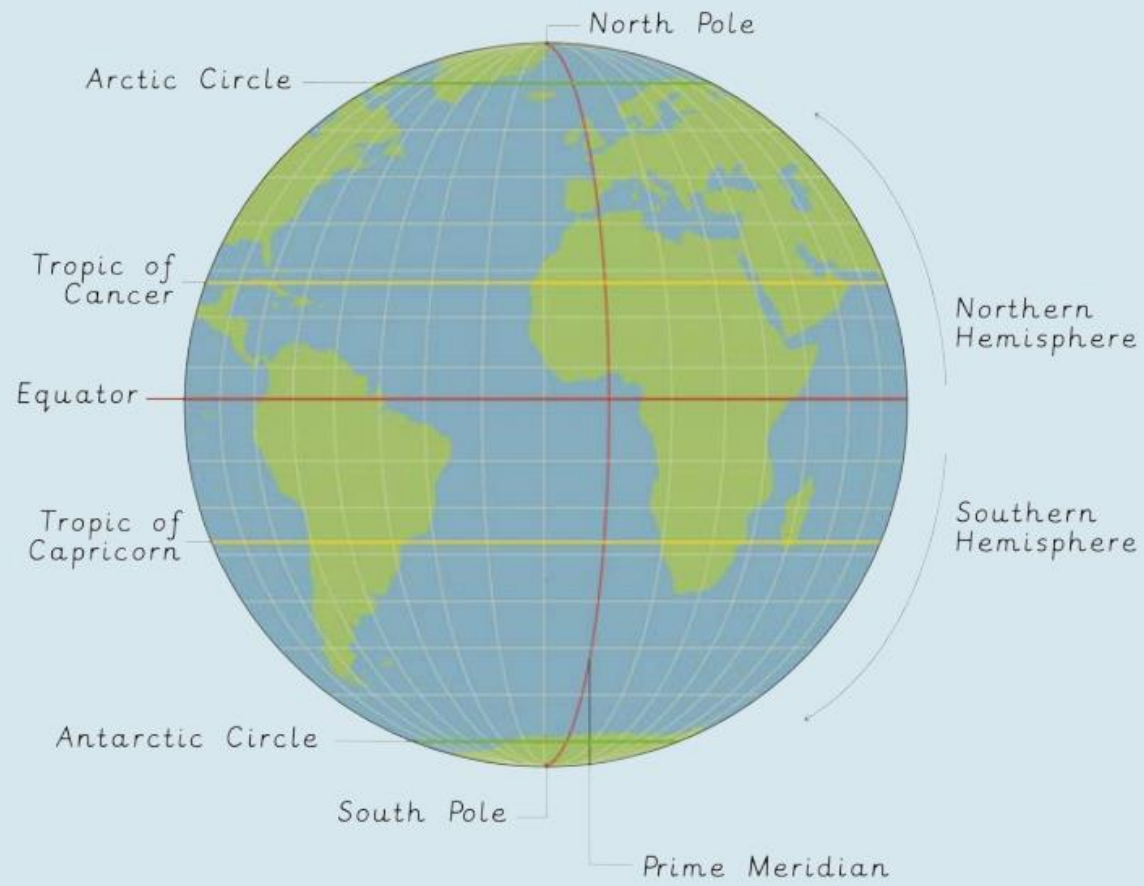
Where is Antarctica?

What is Climate?

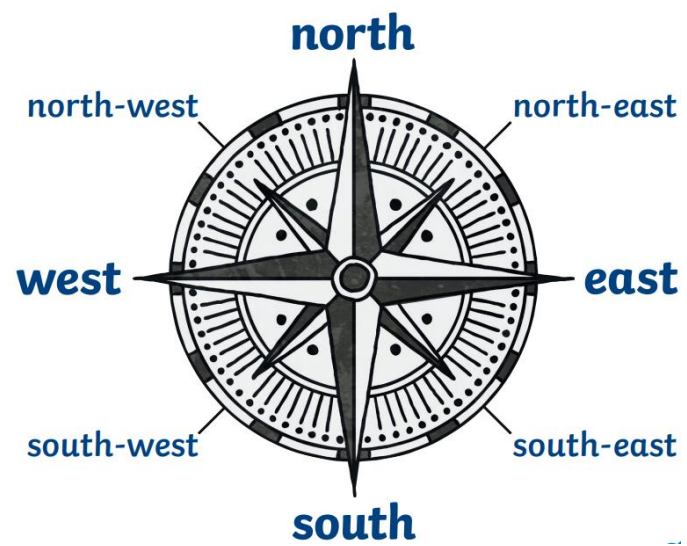
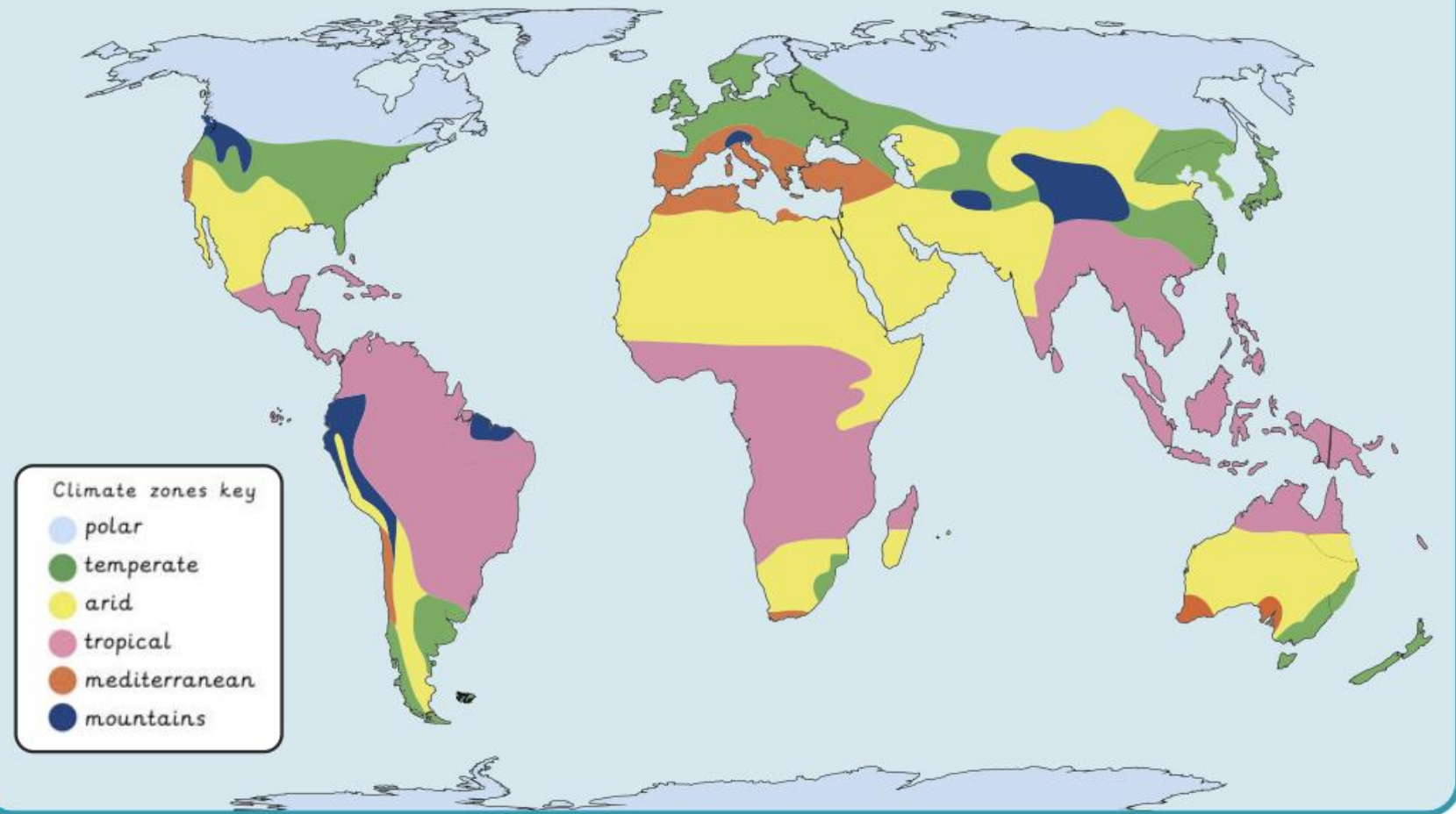
Can we plan an expedition?

Who was Shackleton?

Lines of latitude and longitude



Climate zone map

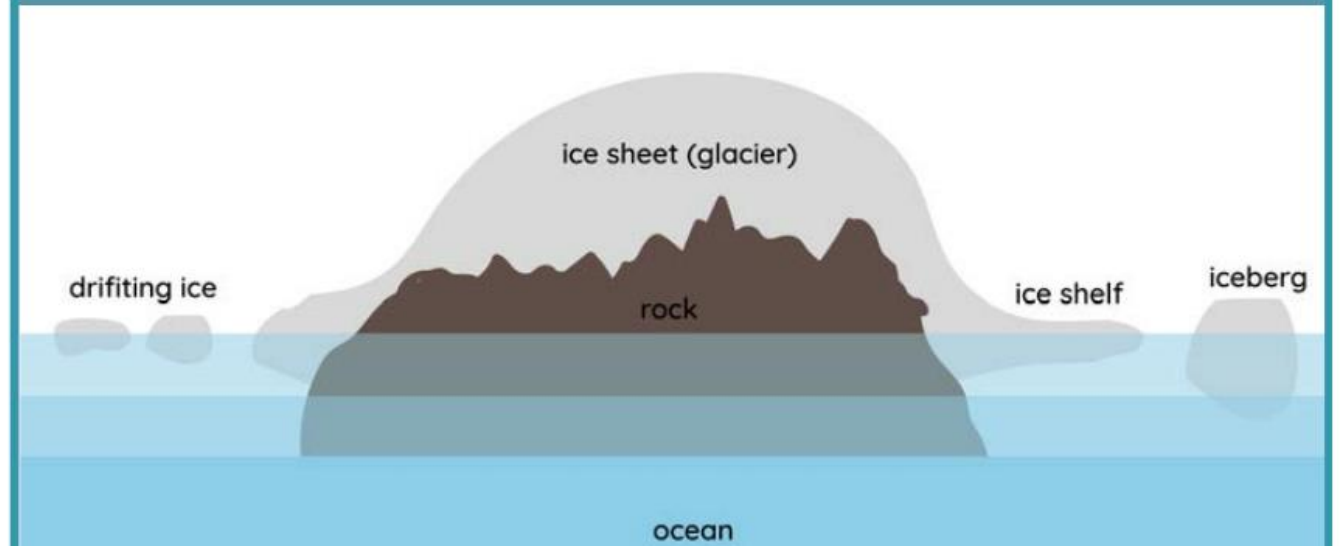


Who lives in Antarctica?



Nobody permanently. However, tourists and researchers do visit.

Physical features of Antarctica





Antarctica is located at the southernmost point on the globe. It experiences extreme blizzards and snowstorms, has many mountain ranges and even an active volcano.

Ernest Shackleton



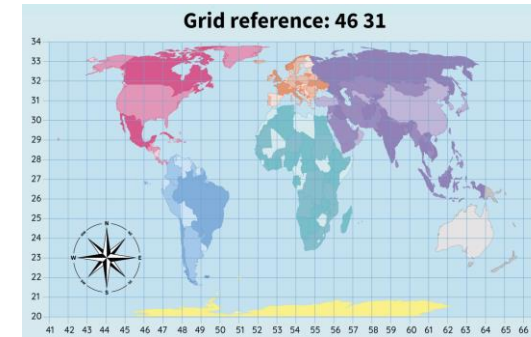
An explorer who wanted to be the first man to reach the South Pole in Antarctica. He never made it there but is famous for bringing 28 men back to the UK alive after his expedition to Antarctica went wrong and his boat sank.

Who lives in Antarctica?



A written agreement signed by 54 countries so far, promising to keep Antarctica a peaceful place and to protect its environment.

When the earth is tilted toward the sun, the Northern Hemisphere receives more light and experiences Summer. The Southern Hemisphere has less light so it is cooler and experiences Winter. As the Earth continues to orbit, the Southern Hemisphere tilts towards the sun and experiences summer as it receives more light and heat while the Northern Hemisphere is tilted away and experiences Winter.



Grid References

Four-figure grid references are used to locate a particular grid square on a map. We to the eastings (horizontal number) first and then the northings. You can remember this by saying, 'along the corridor and up the stairs'

lines of latitude	Invisible horizontal lines mapped on our globe to show how far north or south a place is from the Equator.
lines of longitude	Invisible vertical lines mapped on our globe to show how far east or west a place is from the Prime Meridian.
hemisphere	One half of the Earth.
climate	The long-term weather conditions in a specific region.
climate zone	Areas of the world grouped together that have a similar climate.
compass points	North, east, south, west, north-east, south-east, south-west, north-west
direction	An imaginary line showing the way someone or something is moving.
treaty	A formal, written agreement between two places.
ice shelf	A thin layer of ice extending off a glacier into the sea.
ice sheet	A layer of ice covering the land for a long period of time, also known as a glacier.
drifting ice	Thin, floating pieces of ice not attached to a glacier.
iceberg	Large chunks of floating ice that break off a glacier.