

KNOWLEDGE ORGANISER FOR FROZEN KINGDOM

Glossary

Antarctic—a polar region at the southernmost part of the earth.

Arctic—a polar region at the northernmost part of the earth.

Aurora Australis—a natural light display which can be seen in the sky in the southern hemisphere.

Aurora Borealis—a natural light display which can be seen in the sky in the northern hemisphere.

Climate—typical weather conditions in a certain area.

Eastings— One part of a grid reference, using the 'eastern' numbers on the grid of the map..

Environment— the natural world, and how it is affected by human activity.

Expedition—a group journey with a particular purpose.

Explorer—someone who travels to undiscovered places.

Glacier— a large body of ice.

Grid References—4 digit or 6 digit codes to help you find specific locations on a map.

Habitat—the environment in which an organism lives.

Hemisphere—half of the world, either the northern or southern half.

Human Geography—features in the landscape created by humans.

Iceberg—a floating mass of ice that has detached from a glacier.

Ice sheet—a thick sheet of ice covering a large area.

Igloo—a shelter or house built out of snow.

Inuit people—native inhabitants of the polar areas around the Arctic circle.

Northings—One part of a grid reference, using the 'northern' numbers on the grid of the map..

North Pole—the most northern part of the globe.

Ocean—a body of salt water.

Physical Geography—features of the landscape created by natural processes.

Settlement—a place where a community lives and has become established.

South Pole—the most southern part of the globe.

Temperature—a measurement of how hot or cold something is.

Tropics of Cancer and Capricorn—the northern and southern tropical zones on the globe.

Tundra—a large area of treeless, flat land in the northern polar region.



These two photos are from NASA. The one on the left is from 1979. The one on the right is from 2012. Scientists estimate that Arctic ice has shrunk by 36.5% in this time. Most scientists think that this is caused by pollution and global warming.

TEMPERATURE and CLIMATE

The Arctic

Average Winter Temperature:
-34°C

Average Summer Temperature:
3-12°C

Climate: Long, cold winters and short, cool summers. Mostly dry. Precipitation mainly snow but can rain.

The Antarctic

Average Winter Temperature:
-60°C

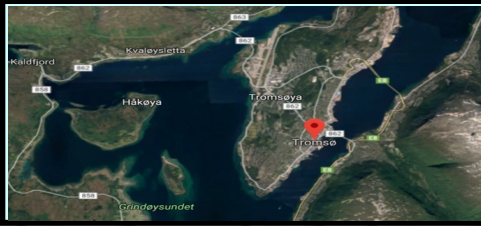
Average Summer Temperature:
10°C

Climate: Mainly dry and cold weather. Precipitation almost always in form of snow.

What impact could this global warming have?

- Sea levels could rise, causing flooding in low lying areas, e.g. London and the Thames Valley.
- Many animals have evolved to rely on the Polar biome. If it disappears, they could become extinct. This could affect human food chains too.

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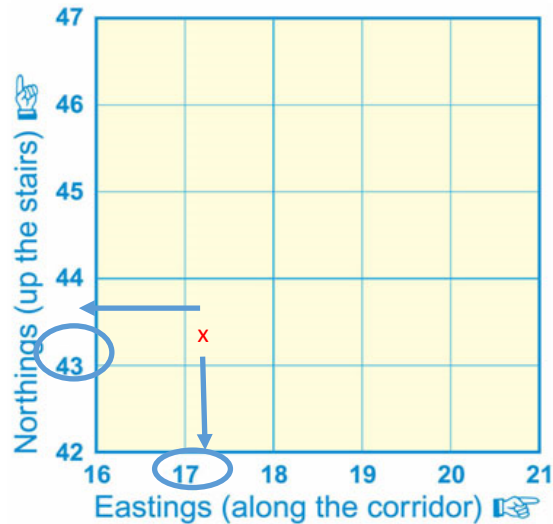


Aerial photographs are usually taken by satellite, by camera drones, or cameras in planes and helicopters. They help us to see the landscape of an area from above.

Tundra Biome

The **tundra biome** is a cold and treeless plain where harsh conditions make it hard for plants and animals alike to survive. Around 20% of the Earth's land surface is

GRID REFERENCES



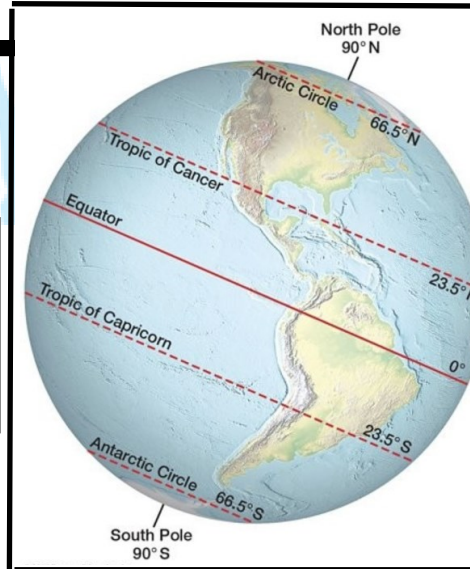
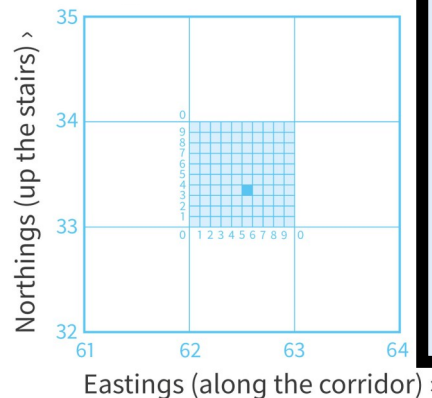
Grid references are like a more challenging version of co-ordinates.. They help you find locations on a map really precisely.

Four figure grid references work like this:

Look at the red x.

1. It is in a box. The first reading is an **eastings** taken from the 'across' x-axis. The number to the left of the x in box is the first reading—17
2. The second reading is a **northing** taken from the 'up' y-axis. The number to the bottom of the x in the box is the second reading—43,

3. Put the references together to get 1743. Anything in the same box as the x would have the reference 1743.
4. To get a 6 figure grid reference, you have to 'zoom in' to a particular square and go through the same process! This is



There are 5 'circles of latitude' across our planet from North to South.

1. The Arctic Circle (at the northernmost end) and the Antarctic Circle (at the southernmost end) are very cold polar regions.
2. The Equator is the line around the very middle of the planet. Day and night always stay the same length around this area. It is a very hot area.
3. The Tropic of Cancer, which is in the Northern hemisphere. It marks the beginning of a very hot 'equatorial' zone. The Tropic of Capricorn does the same job in the Southern hemisphere.

THE ARCTIC OCEAN

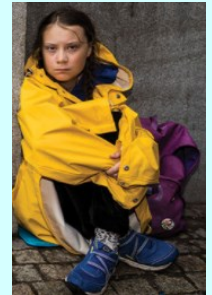
The Arctic Ocean is the smallest and shallowest ocean on Earth. It has a temperature of -35°C in Winter and reaches 0°C in Summer. It is covered by ice in Winter, and partly covered by ice in Summer.

THE SOUTHERN OCEAN

The Pacific, Indian and Atlantic Oceans flow around Antarctica and are called The Southern Ocean. Lots of icebergs drift out in to the Atlantic from Antarctica.

Key individual and event

Greta Thunberg is an environmental activist. She was born in Stockholm, Sweden, in 2003. When she was eight, she started learning about climate change. The more she learned, the more baffled she became as to why so little was being done about it. Greta has Asperger syndrome, a condition that affects how people socialise. But Greta views her condition as a positive.



Latitude and Longitude

To help navigators understand their global position, the globe