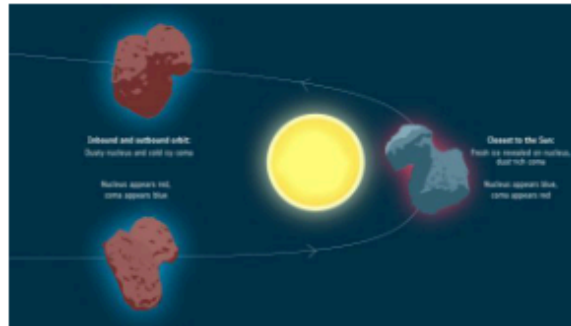
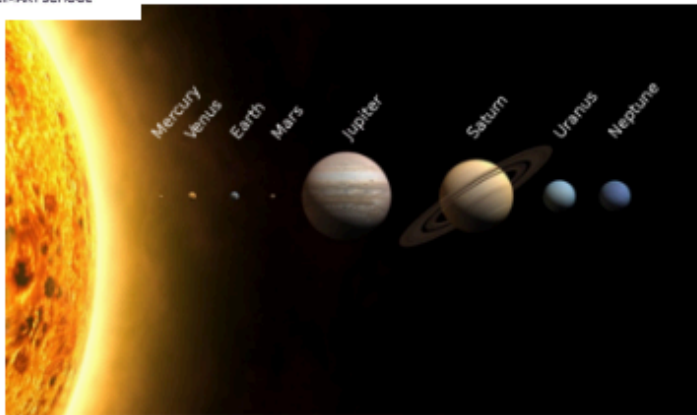
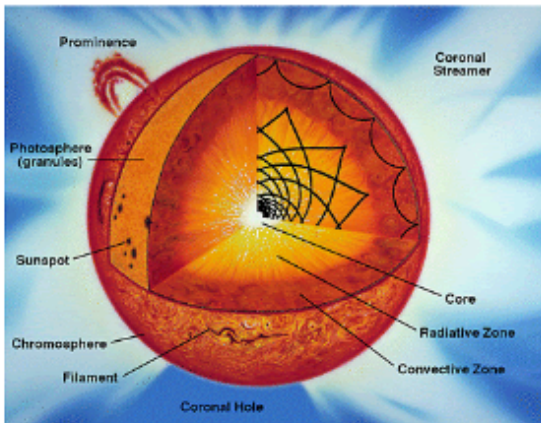




Earth, Sun and Moon.



Comet orbiting the sun



Sun is huge, glowing sphere of hot gas. 70% of the gas is hydrogen and 28% is helium. Carbon, nitrogen and oxygen make up 1.5% and the 0.5% remaining is; neon, iron, silicon, magnesium and sulphur.

Earth and Space

The Earth orbits the sun taking 365½ days.

The Sun gives us warmth and light.

Shadows form when the light is blocked. Shadows move and change size as the Earth spins. When the Sun is overhead, shadows are shortest.

The Earth takes 24 hours to spin once.

The moon orbits the Earth taking 28 days.

Gravity is a pulling force. It pulls us and everything else to Earth.

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Key Vocabulary

- Space** - dimensions of height, depth and width within which all things exist and move.
- Earth** - the planet on which we live; the world.
- Planets** - a celestial body moving and orbiting around a star.
- Star** - a fixed luminous point in the night sky, which is a large, remote incandescent body like the sun.
- Sun** - a star round which the earth orbits.
- Moon** - the natural satellite of the earth, visible (chiefly at night) by reflected light from the sun.
- Orbit** - the curved path of a celestial object or spacecraft round a star, planet, or moon, especially a periodic elliptical revolution
- Vacuum** - a space entirely devoid of matter.

- Telescope** - A telescope is an instrument that allows seeing distant objects.
- Asteroid** - Chunk of rock and metal in outer space that is in orbit around the sun
- Meteor** - A meteoroid is a chunk of rock or metal from space that falls through the atmosphere, or layer of gases, surrounding Earth
- Solar System** - consists of the sun and everything that orbits or travels around it,
- Comet** - Small chunk of dust and ice that orbits or travels around the sun.

Spherical - round in shape.



ANTARCTICA KNOWLEDGE ORGANISER

PHYSICAL GEOGRAPHY

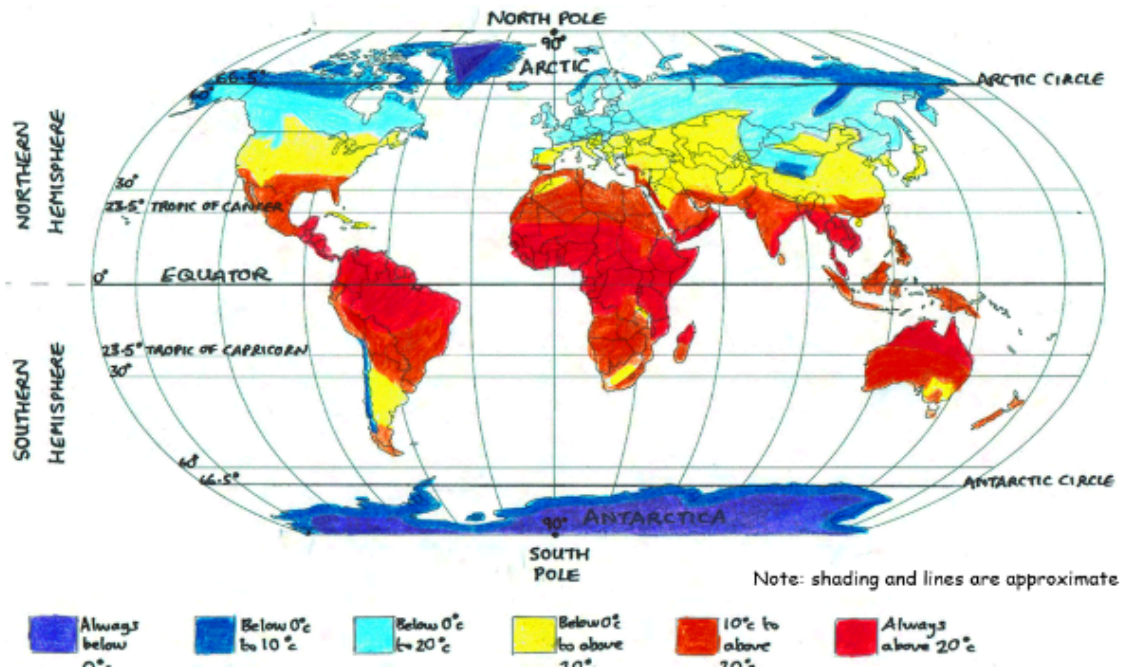
- Antarctica is the 5th largest continent based on size.
- No one lives there but scientists will stay there to conduct research.
- Antarctica has no countries.
- There are no major cities just scientific outposts.
- 98% of Antarctica is covered by ice.
- Antarctica is considered a desert because it experiences such little rain.
- Antarctica is quite mountainous.
- Antarctica is divided into three main parts: **East Antarctica** (the biggest part), **West Antarctica** and in between them the mountain range called the **Transantarctic Mountains**.

Ernest Shackleton

Ernest Shackleton was a polar explorer. In 1914 Shackleton took a team of men on an expedition to Antarctica on a ship called the Endurance as he wanted to be the first to pass through the South Pole via Antarctica.



MAP SHOWING TYPICAL GLOBAL TEMPERATURES



KEY WORDS

Equator - an imaginary line around the Earth. Everywhere on the Equator is equally distant from the North Pole and the South Pole.

Northern Hemisphere - the half of Earth that is north of the equator.

Southern Hemisphere - the half of the Earth that is south of the equator.

North Pole - the most northern point of the earth.

South Pole - the most southern point of the Earth.

Arctic Circle - a special line of latitude that forms a circle around the North Pole (approximately 66.5 degrees north of the Equator). Anything north of this imaginary circle is in the Arctic.

Antarctic Circle - a special line of latitude (approximately 66.5 degrees south of the Equator). Anything south of this imaginary circle is in Antarctica.

Polar Regions - the regions of the Earth surrounding the North and South Poles.

Antarctic Peninsula - the largest peninsula of Antarctica, between the Weddell Sea and the Pacific. It consists of Graham Land in the north and the Palmer Peninsula in the south (see map on slide 11).

Weather - the daily state of the atmosphere in any given place (in regard to heat or cold, wetness or dryness, calm or storm, clearness or cloudiness).

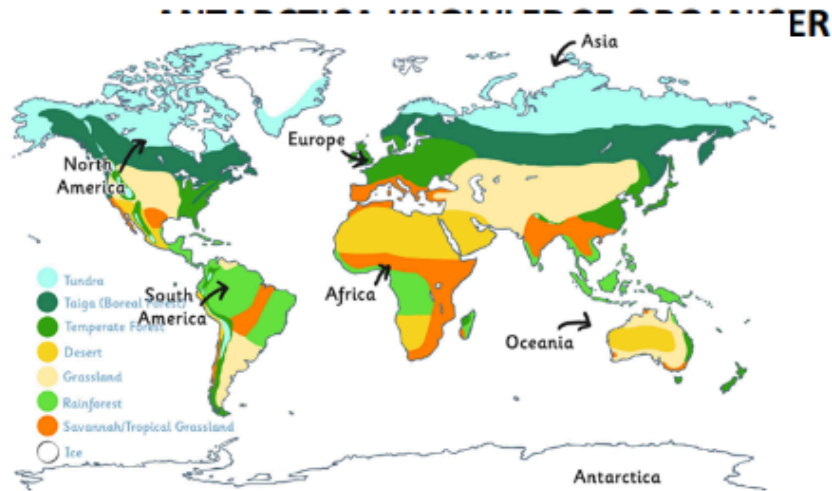
Climate - the average of the weather conditions in an area over a long period of time (usually 30 years).

Ice sheet / continental glacier - a thick layer of ice covering a large area of land (more than 50,000km wide) for a long period of time.

Ice cap - a mass of ice and snow that permanently covers an area of land (less than 50,000km wide) and is usually centred on a highest point.

Ice shelf - a thick floating platform of ice that forms where a glacier or ice sheet flows down to a coastline and onto the ocean surface.

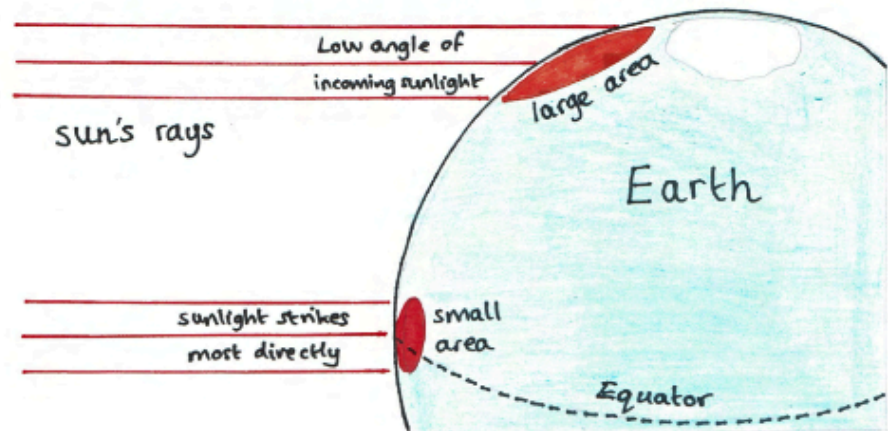
Geography Autumn 2: Antarctica Knowledge Organiser



Orca Whale: Physical Adaptations

- Thick layer of blubber (fat) for warmth
- Sharp teeth to rip apart and chew prey
- Easily glide through water with use of dorsal and pectoral flippers
- Can dive deep into water for 1 to 4 minutes
- Can swim very fast (up to 30mph) to catch prey
- Use a method known as echolocation to help them navigate the ocean, find food and avoid danger

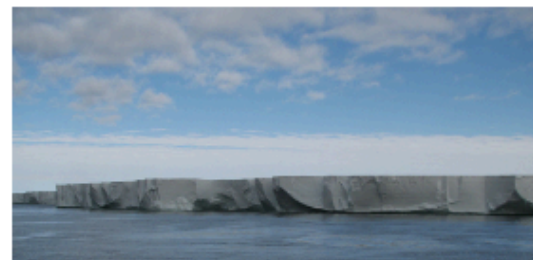
At the Poles, the sun's rays strike the Earth at a very low angle so they are spread out over a greater area and temperatures are very low



Emperor Penguin: Physical Adaptations

- Large size so retain heat and can survive without feeding for long periods
- Very small bill (beak) so less blood needed to this area and less heat lost
- Can store large amounts of fat which insulates their bodies and provides a long-lasting energy source
- Several layers of scale-like feathers protect them from icy winds and provide a waterproof coat
- Shape makes them very agile underwater. Feet and tail act as a rudder and their stiff, strong flippers as propellers
- Small flippers that can be held close to the body reduce surface area on land, so reduce heat loss
- Powerful claws on feet help gain a grip on snow, ice or rock when emerging from the ocean or tobogganing

Much of the coastline of Antarctica is fringed by ice shelves. The Ross Ice Shelf covers an area greater than the British Isles





Is the Christmas story true?

Different accounts of the Christmas story.

Understand that stories can be true in different ways.

What does true mean?

Even though we can all witness the same even, we see things through our own lens.

Discuss different types of truth when studying Christmas e.g. historical, scientific,

Personal(beliefs)

What do you know about the Christmas story?

Who was present at the birth of Jesus?

Why are they all there at the same time?

Whose version of the Christmas story is true?

Was Jesus really born on the 25th December?

There are different accounts of the Christmas story in the bible according to

Luke Ch 1: 26-38 and Ch 2:1-20

Matthew Ch 1: 18 and Ch 2: 12



Key Vocabulary

Jesus

Mary

Joseph

Three wise men

Angel Gabriel

Bethlehem

Shepherds

Egypt

Gold

Frankincense

Myrrh

Stable

Innkeeper

Different people.

Luke Ch 1: 26-38 and Ch 2:1-20

Matthew Ch 1: 18 and Ch 2: 12

