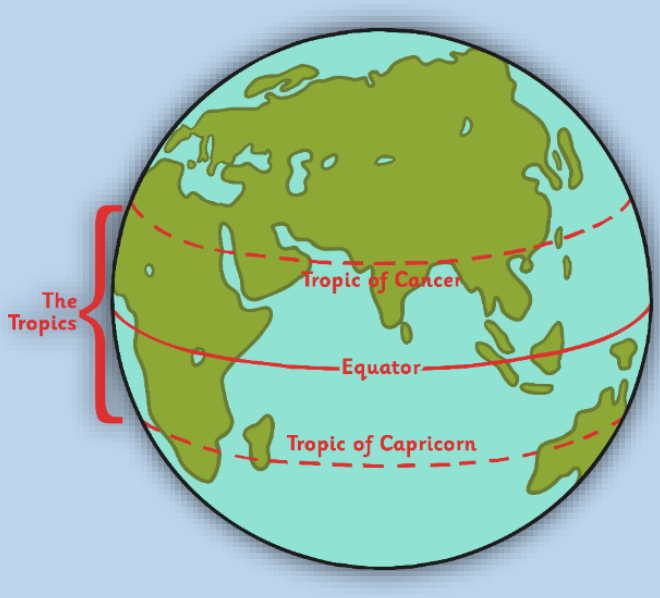
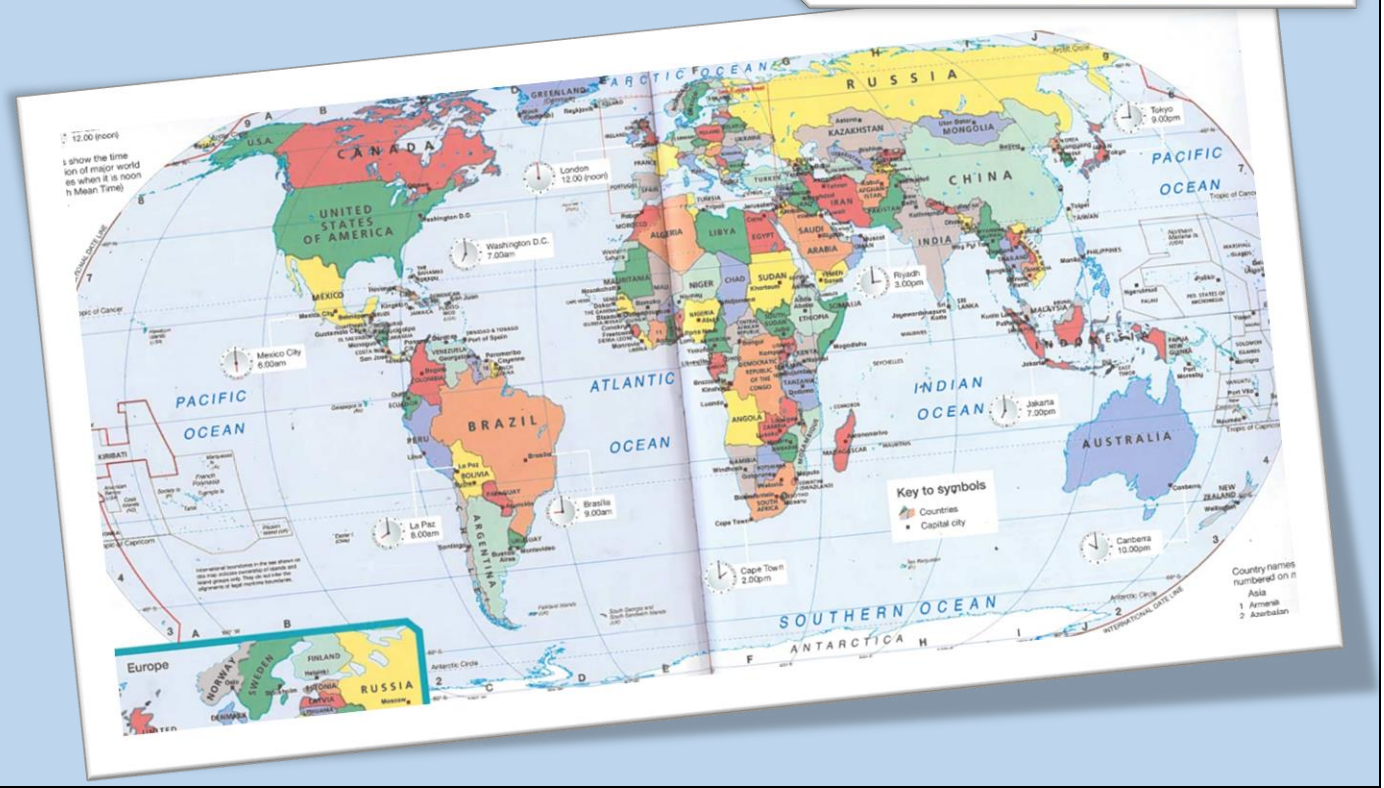
Y3 Geography





Mapping our world

Overview: In this unit, children will map the world. They will look at the position of lines on longitude and latitude, including the Equator and Tropics. Children will also know why they are significant. This knowledge is vital for children to acquire during this unit as most unit rely on this knowledge.

R	***What knowledge and skills should children already have? (Forms pre-lesson AfL)*** Children should know the names of the continents and oceans. Children should know that cooler place are towards the poles and hotter countries and around the equator.
A	***What knowledge and skills will children acquire?*** In this unit, children will acquire knowledge about how climate differs depending on where you are located. Children should know that the closer to the Equator a country is, the hotter it is and that the polar regions are colder. They will also learn how to locate different countries using atlases. **Children will be able to answer the following questions**: **Knowledge:** What is the Equator? What do we call the top and bottom parts of the world? Can you name continents in the Northern/Southern Hemispheres? What are lines of longitude? What are lined of latitude? Why are the poles cooler than the Equator? What is it like at the poles? Is it the safe? **Skills:** **C**an children locate different countries using maps, atlases and globes? Can children locate the Equator, Tropics, Arctic and Antarctic circles on maps, atlases and globes? ***National Curriculum Link*** Identify the position and significance of latitude, longitude, Equator, Northern Hemisphere, Southern Hemisphere, the Tropics of Cancer and Capricorn, Arctic and Antarctic Circle
D	***How will teachers facilitate children to develop their skills / knowledge?*** Children will use atlases and globes to locate countries which the equator runs through. Children will compare how the weather is different between the tropics to the UK. Children will read about the polar regions and discuss the similarities and differences between the Arctic and Antarctica.
A	***How will children apply their knowledge / skills?*** Children be given the opportunity to describe what it would be like if they visited the tropics in comparison to the polar regions.
R	***Notes around what children need to remember.*** Recap 1: Can children label the Equator and Northern and Southern Hemispheres? Recap 2: To find out how far north or south a place is, lines of latitude are used. These lines run parallel to the Equator and to find out how far east or west a place is, lines of longitude are used. These lines run from the top of the Earth to the bottom. Recap 3: To label the Tropics and be able to describe what the climate is like there. Recap 4: To label the Polar regions and say why they are colder. Recap 5: Show the children different countries on the map, which one would be hotter?

R – Ready	A – Acquire knowledge and skills	D – Develop knowledge	A – Apply knowledge	R - Remember
Detective	Instructor	Facilitator	Mentor	Coach

Coverage within this unit

Hillfort Specific	Embody the school's values		Cultural Isolation		Oracy & Tier 2 vocabulary Latitude Longitude Hemisphere Tropic	
Geographical concepts	Place What happens in the different areas? How features are in the tropics vs polar.	Space	Environment – human and physical processes	Environmental impacts	Cultural awareness	Scale National weather patterns vs Global. Comparing UK to Antarctica.
Geographical skills	Map work Identify the Equator, Northern and Southern Hemisphere, Arctic and Antarctic circles Use lines of latitude and longitude Using index of an atlas confidently		Enquiry	Graphicacy Annotating world maps – tropics, polar regions.		Organisation and Communication

Overview of lessons

1	In this lesson, we will be learning about hemispheres, which divide the world into two equal halves. We will explore the Northern and Southern hemispheres as well as the Equator, an imaginary line which circles around the Earth, halfway between the North and South Poles.
2	In this lesson, children will learn about longitude and latitude.
3	In this lesson, children will learn about the Tropics and what the climate and habitat is like between them. They will then compare it to the UK.
4	In this lesson, children will learn about the Polar Regions
5	In this lesson, children will apply their knowledge about the polar regions and tropics.

Lesson 1

Overview: In this lesson, we will be learning about hemispheres, which divide the world into two equal halves. We will explore the Northern and Southern hemispheres as well as the Equator, an imaginary line which circles around the Earth, halfway between the North and South Poles.

New key vocabulary: hemisphere, Equator, North Pole, South Pole

Recap: Children should know all of the continents and the oceans of the world and this would have been recapped in a recap lesson previous to starting this unit.

Acquire knowledge & skills:

Children need to know that the North and South Poles mark the end of the Earth's axis.

Children should know that the equator is an imaginary line which circles around the Earth, halfway between the poles.

Children need to know that a hemisphere is one of two equal halves of the Earth split along the Equator.

Children should know the continents the Equator runs through and the countries.

Children should be able to use an atlas and globe to find the Equator.

Develop knowledge & skills:

Children will use atlases and globes to locate countries which the equator runs through.

Task:

Using a printed picture of a world map, the children will label the Equator and Northern and Southern Hemispheres. They will then use an atlas to find the countries the Equator runs through and label them.

Resources:

Printed world map (see below)

Atlases

Globes

https://www.youtube.com/watch?v=cqKZYAmcReQ – watch up to 1:28

Assess: Show the children an image of the world with different lines drawn through it. Can they identify which one is the Equator?

Notes to teacher:

Lesson 2

Overview: In this lesson, children will learn about longitude and latitude.

New key vocabulary: Longitude, latitude

Recap: What is the Equator? What are the hemispheres? Can you locate them on a globe?

Acquire knowledge & skills:

Children should know that to find out how far north or south a place is, lines of latitude are used. These lines run parallel to the Equator and to find out how far east or west a place is, lines of longitude are used. These lines run from the top of the Earth to the bottom.

Children should be able to find the lines of longitude and latitude on a map

Develop knowledge & skills:

Children to compare countries locations

Apply knowledge & skills:

Children will use a world map to follow a line of longitude or latitude and say countries they run through

Task:

Stick the scanned picture of the atlas into your book.

Task 1:

Give children different questions (you should model to the children how to do this first):

'Who can find a country between 40° and 20° North?'

'Who can find a country between 80° and 120° West?'

'Who can find the country that is 80° East and 20° North?'

Task 2:

Describe different routes you went on following a line of longitude and latitude. The children have to guess which one you 'walked' across. Say it to them in stages so that they can narrow down which one you are discussing.

1) I am walking over the Pacific Ocean.
2) I am North of the Equator.
3) I pass through the continent of Europe.
4) I also go over the city of Beijing.
5) I go through Turkey

Children will then choose a line of longitude or latitude and write where they would go if they 'walked' along it.

Resources:
Atlases – Pages 12-13

Assess: Give children clues, do they know which line you are on?

Notes to teacher:

Lesson 3

Overview: In this lesson, children will learn about the Tropics and what the climate and habitat is like between them. They will then compare it to the UK.

New key vocabulary: Longitude, latitude, Tropic of Cancer, Tropic of Capricorn, climate

Recap: Fill in the blanks

To find out how far _____ or _____ a place is, lines of _____are used. These lines run parallel to the Equator.

To find out how far _____ or _____ a place is, lines of _____ are used. These lines run from the top of the Earth to the bottom.

latitude	west	longitude
south	north	east

Acquire knowledge & skills:
Children will be able to identify the Tropic of Cancer and The Tropic of Capricorn on a world map. (See below)
Children will learn about what the climate is like between the tropics and the different habitats

Develop knowledge & skills:
Children will compare how the weather is different between the tropics to the UK.

Task:
Children will complete a table looking at how they are different and how they are similar(see PPT).

Resources:
PPT 1 – Comparing weather

Assess: Provide the children with different pieces of information. For example, 'There are no cold seasons.' Is that the Tropics or UK?

Notes to teacher:

Lesson 4

Overview: In this lesson, children will learn about the Polar Regions

New key vocabulary: Polar region, topography

Recap:
Can children label the hemispheres, Equator, tropics on a map?

Acquire knowledge & skills:
Children should know that the Polar regions are the Arctic and Antarctic.
They should know that they are the coldest regions on Earth as they are furthest away from the Equator.
Children should be able to say some countries which can be found within the Arctic Circle.
Children should already know that Antarctica is a continent, but it contains no countries.
Children should be able to locate the Arctic and Antarctic Circle on a map.
The Arctic Circle is **a line of latitude**, which is an imaginary horizontal line around the Earth. The lands and ocean north of the Arctic Circle is called the Arctic.

Surrounding Antarctica is an imaginary line called the Antarctic Circle, which is one of many lines of latitude. Anything south of this is Antarctica.

Develop knowledge & skills:

Even though they are both cold regions, children need to know that they are different. Children will read about the polar regions and discuss the similarities and differences.

Apply knowledge & skills:

Children should apply their knowledge of both polar regions and come up with a justification to whether they would rather live in the Arctic or the Antarctic.

Task:

Task 1:

Children to label the correct parts of the map with Arctic and Antarctic. Please make sure they include North and South Poles. Children will look at the map of the Arctic Circle to see which countries are in it.

Task 2:

Children will read the information sheets (below) about the Arctic and Antarctica. You can decide whether this is WCR style

Children will produce a short piece of writing giving their opinion on whether they would rather live in the Artic or Antarctica.

Resources:

https://www.youtube.com/watch?v=SxwKa5cR3w4

Maps (below)

Assess: Can children identify the correct lines of latitude?

Notes to teacher:

Lesson 5

Overview: In this lesson, children will apply their knowledge about the polar regions and tropics.

New key vocabulary:

Recap:

Can children label the tropics and polar regions?

Recap what it is like in the tropics and polar regions with the children.

Apply knowledge & skills:

Children should apply their knowledge of both the polar regions and the tropics by imagining that they are going on holiday to the different areas.

Children should consider two main ideas:

1. What would they have to take with them?
2. What would they be able to take pictures of once they're there?

Children should now know the differences between the areas and why they are different.

Polar regions – Children take stuff so that they are prepared for the cold. For example, thermals, woolly hat etc and what would they see? Ice bergs etc.

Task:

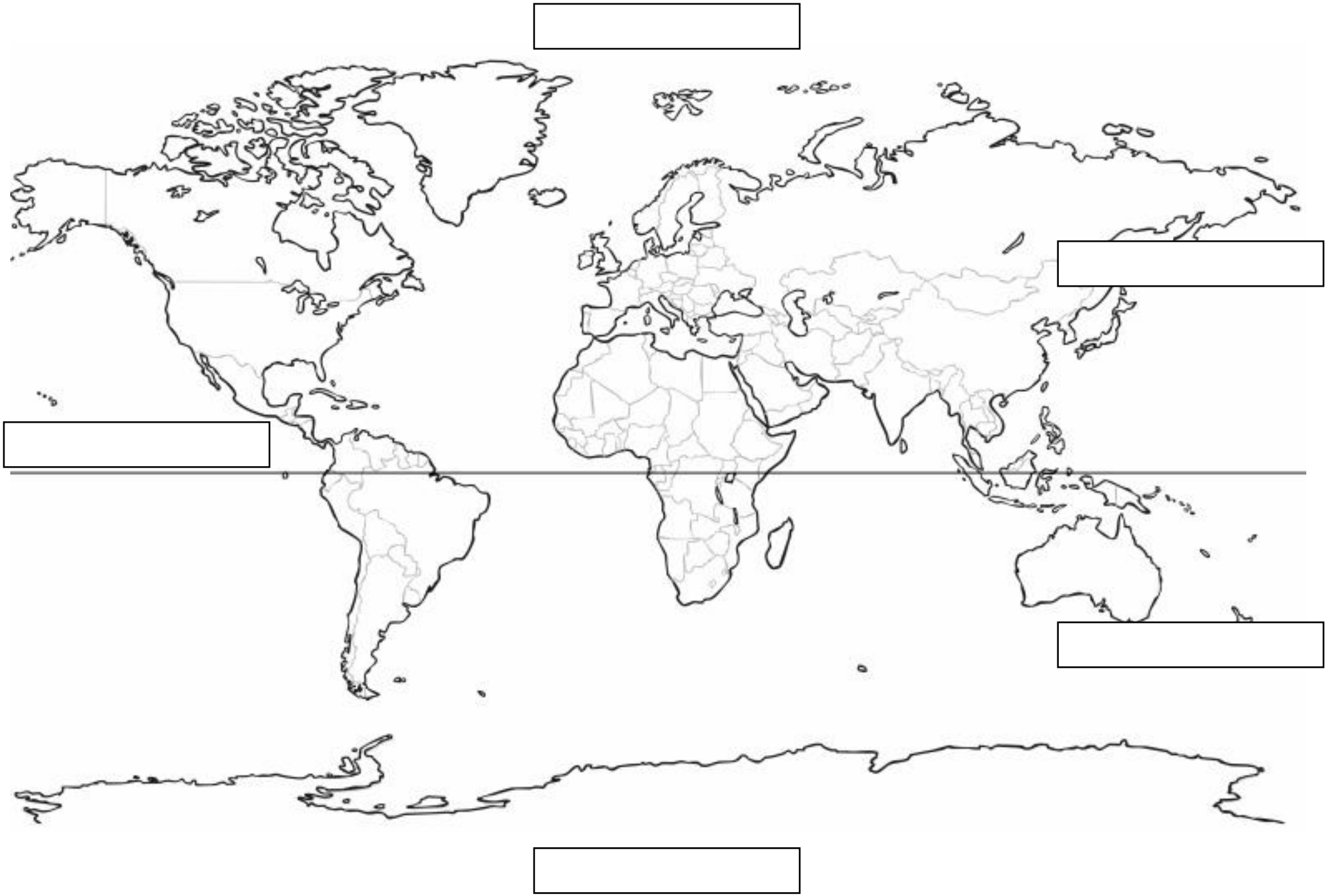
1) Collate ideas about what the children would have to take to the different areas if they were visiting there on holiday.
2) Collate ideas with the children about what they might see in the different places. Make sure they are aware that not all places between the tropics are the same so show some differing images.

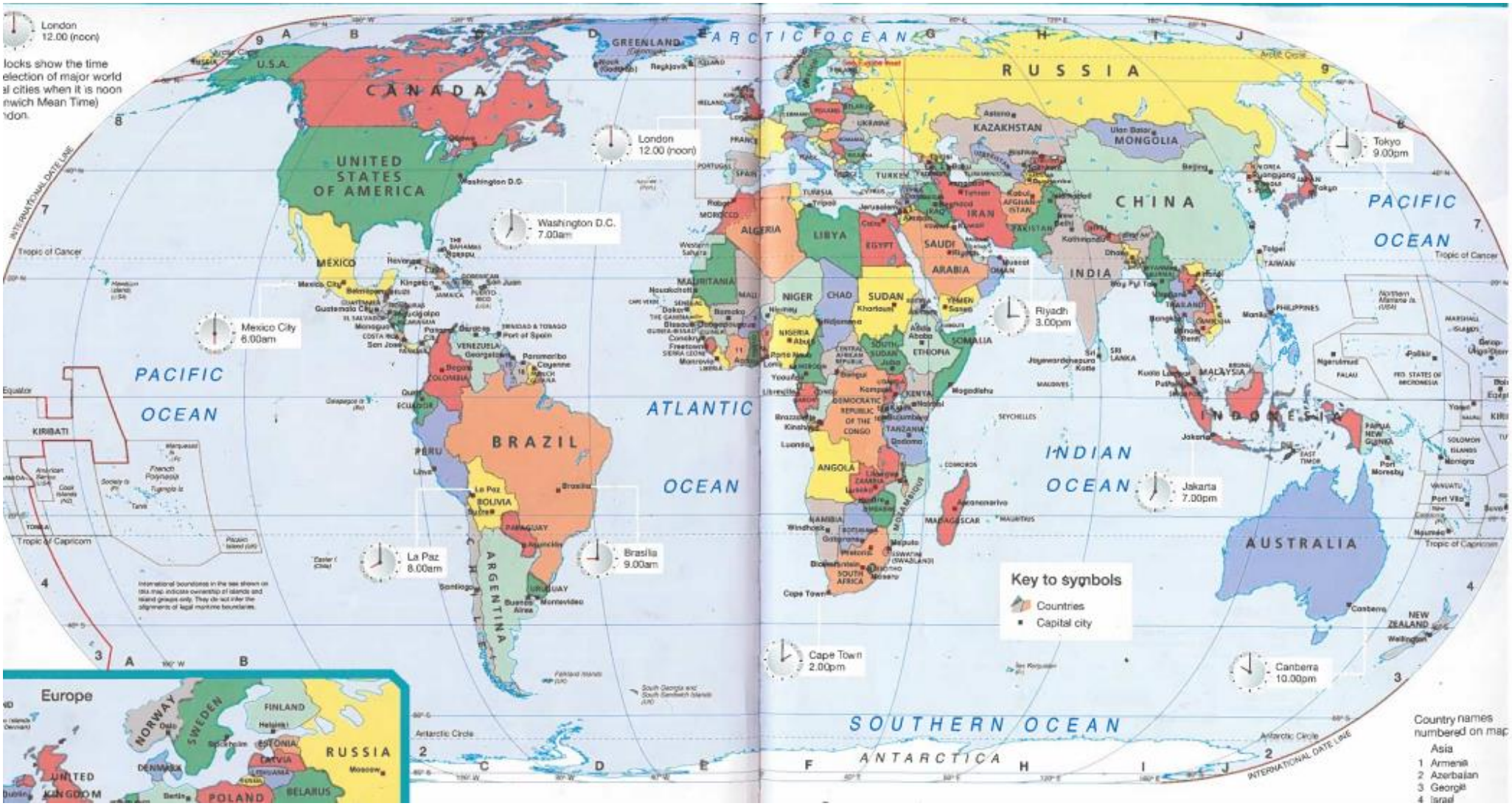
Children may want to complete this as a table or a piece of writing – teacher can choose.

Children could also draw what they would see and label it.

Notes to teacher:

SEN may want to sort different statements of what they would take and what they would see.

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Europe
NORWAY
SWEDEN
FINLAND
RUSSIA
DENMARK
POLAND
BELARUS
SOUTHERN OCEAN
ANTARCTICA
Antarctic Circle
Tropic of Cancer
Tropic of Capricorn
Equator
INTERNATIONAL DATE LINE
Country names
numbered on map
Asia
1 Armenia
2 Azerbaijan
3 Georgia
4 Israel


ARCTIC REGION
North Pacific Ocean
Bering Sea
Sea of Okhotsk
East Siberian Sea
Beaufort Sea
Laptev Sea
Arctic Ocean
10°C (50°F) isotherm, July
CANADA
RUSSIA
Hudson Bay
Baffin Bay
Kara Sea
Greenland
Davis Strait
Greenland Sea
Barents Sea
Labrador Sea
Denmark Strait
Norwegian Sea
North Atlantic Ocean
Scale 1:39,000,000
Azimuthal Equal-Area Projection
The Arctic region is often defined as that area where the average temperature for the warmest month is below 10°C.


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SOUTHERN OCEAN
KONG HÅKON VII HAV
WEDDELL SEA
ANTARCTIC PENINSULA
DRONNING MAUD LAND
ENDERBY LAND
COATS LAND
KEMP LAND
MAC.ROBERTSON LAND
RONNE ICE SHELF
EAST ANTARCTICA
PRINCESS ELIZABETH LAND
BELLINGSHAUSEN SEA
South Pole
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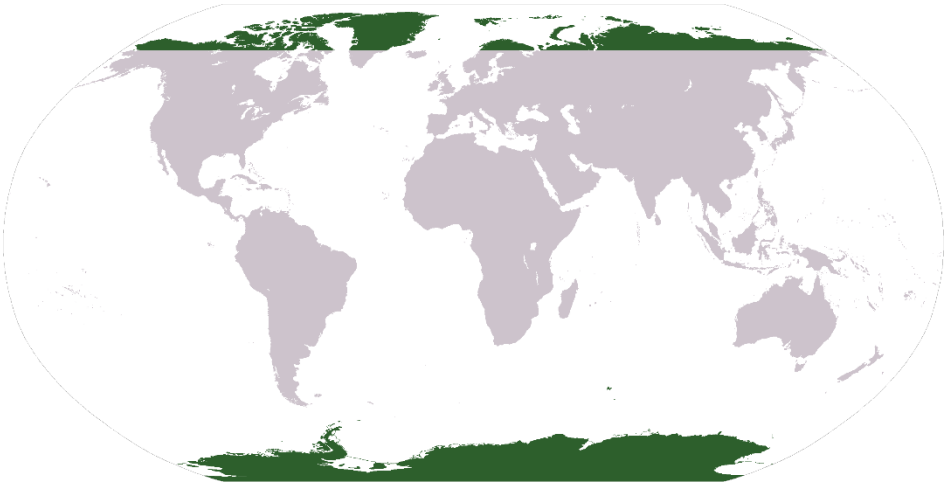

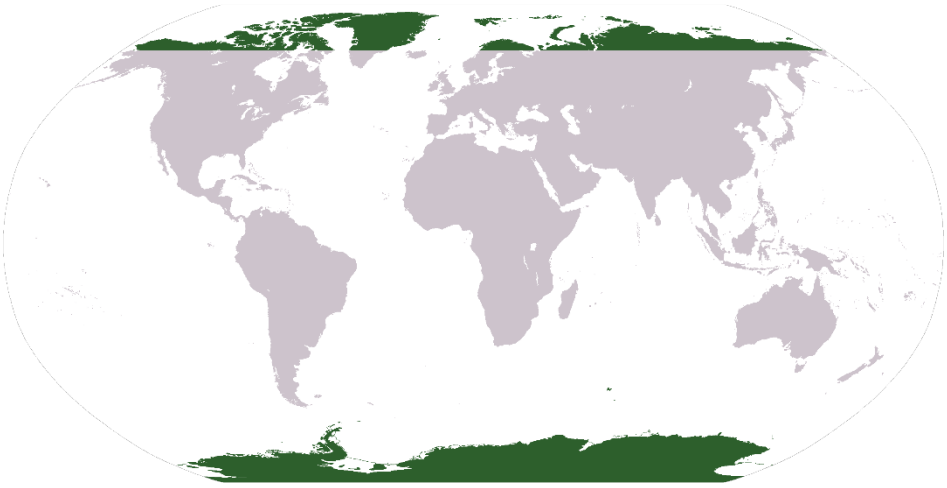

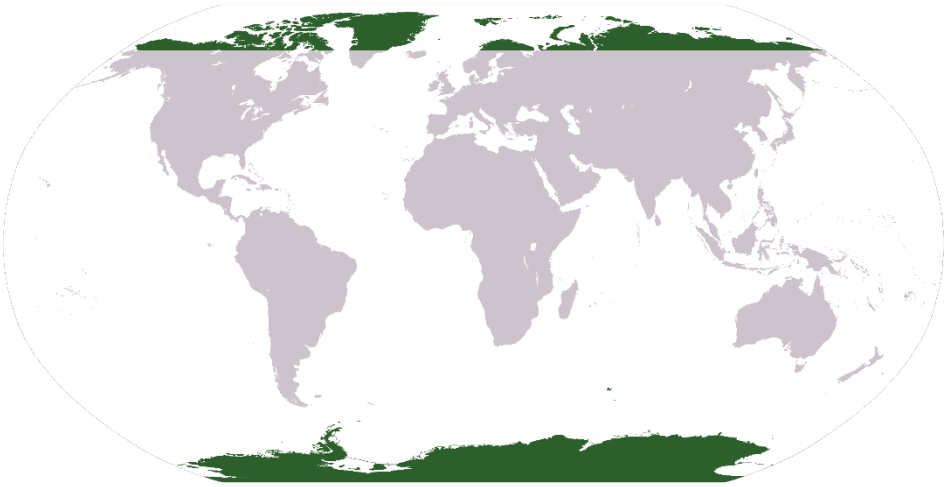

Comparing the Arctic to Antarctica

	North Pole	South Pole
Where?	At sea - 700km to nearest land	Inland - 1,300km to nearest sea
Height	Up to 2m above sea-level	2,835m above sea-level
21st June	Midsummer, 24hr. light	Midwinter, 24hr. dark
21st December	Midwinter, 24hr. dark	Midsummer, 24hr. light
Is there a physical marker	No, it would drift off in a few hours	Yes, moves 10m a year
Temperature	+13°C to -43°C	-12.3°C to -62°C

Topography (The arrangement of land and sea).

The Arctic region

The Arctic region contains a wide range of landscapes; plains, mountains, some very large significant rivers and lakes. The ice in the Arctic Ocean is largely formed from the frozen sea and contained by the surrounding land masses. Greenland has the largest ice cap in the Arctic (and second largest in the world after the Antarctic ice cap). Other than this, permanent ice is quite rare and relatively small. Ice bergs form when the edges of the Greenland ice sheet reach the sea, most of the ice in the Arctic even in the summer is frozen sea ice.

Antarctica

is 98% covered in ice which means that away from coastal regions (and even including many coastal regions) the landscape is icy mountains, glaciers or smooth ice-sheet. There are no significant rivers and none that flow year round. Lakes are small, rare and often permanently frozen over. Additionally, there is very little land vegetation, and no grassland, shrubs or trees. The total surface area of Antarctica approximately doubles each winter as sea-ice forms around the coasts. In the summer, this ice breaks up and drifts north mainly melting. As it does so, Antarctic sea-ice is therefore mainly first year ice. The great ice sheets of Antarctica calve enormous ice bergs into the sea that are measured in square miles.

Climate

The climate of both polar regions consists of long, cold winters and short, cool summers (or at least less cold than the winter). There is a spring and autumn, but if you blink, you might miss them. You could say that there are two seasons, one cold and bright, the other colder and dark.

The Arctic is not as cold as the Antarctic for two main reasons. Firstly, the effect of the sea that doesn't fall below -2°C which means that the whole of the arctic polar region and coastal regions are kept *relatively* warm even though the sea is covered by ice. Secondly, Antarctica is the highest of all the continents at an average height of 2,300m. Temperature falls as altitude increases at the rate of about 1°C per 100m. The coldest temperature ever recorded on earth was -89.2°C on July 21st 1983 at the Russian base at the Southern Geomagnetic Pole in Antarctica.

Plants

Arctic
Plant life in the Arctic is characterized largely by what grows on the tundra, a vast low growing treeless area that is mainly underlain by permafrost (any ground that remains completely frozen). There are shrubs, grasses and mosses as well as an extensive variety of alpine type flowering plants and many lichens. There are about 1,700 species of plants that live on the tundra in all.

Antarctic
Plant life in the Antarctic on the other hand is much less plentiful. Only about 1% of the continent is ice free. This is located mainly along the Antarctic Peninsula and on islands, there are some exposed rocks inland where the hardiest of plants can grow. There are just two species of higher plants, a grass and a small flowering alpine, around 100 species of moss, 300-400 species of lichens. Often where plants are found growing in Antarctica, they are sparse and irregularly spaced.

Animals

Arctic

The Arctic has many large land animals including reindeer, musk ox, lemmings, arctic hares, arctic terns, snowy owls, squirrels, arctic fox and polar bears. As the Arctic is a part of the land masses of Europe, North America and Asia, these animals can migrate south in the winter and head back to the north again in the more productive summer months. There are a lot of these animals in total because the Arctic is so big. The land isn't so productive however so large concentrations are very rare and predators tend to have very large ranges in order to be able to get enough to eat in the longer term. There are also many kinds of large marine animals such as walrus and seals. Narwhals and other whales are present but not as plentiful as they were in pre-whaling days.

Antarctic

The largest land animal in the Antarctic is an insect, a wingless midge which in less than 1.3cm long. There are no flying insects (they'd get blown away). There are however a great many animals that feed in the sea though come onto the land for part or most of their lives, these include huge numbers of penguins, crabeater seals and many other kinds of birds such as albatross.

Inhabitants

Arctic

There are many indigenous peoples who live around the Arctic. The presence of humans is one of the biggest differences between the two poles. Typically, the people who live in the far north are nomadic and are hunter/gatherers with the emphasis on hunting rather than gathering. There are many villages, towns and cities dotted around the Arctic the largest being Murmansk with 325,100 inhabitants. The permanent population of the Arctic is around 4 million.

Antarctica

Antarctica has never had any native people living there. No one set eyes on Antarctica until 1820, the first human foot stepped ashore a year or two later and it was 1898 before people stayed ashore for a whole year. Other than temporary sealing and whaling stations in the early days, Antarctica has only ever been habited by scientific stations and their personnel who only stay for a year or two.