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Mission Assignment: 1. What are continents?

Code: GEO-13-01

Intent

Lesson Outcomes

- Name the seven continents of the world
- Name and locate the seven continents of the world
- Name and locate the seven continents of the world and name some countries within them

National Curriculum

Name and locate the world’s seven continents and five oceans

Resources

Resources: The handout, a globe or world map and pencils.

Support Handout (1): The handout provides a word bank so the children can label the seven continents.

Core Handout (2): The handout provides a map so the children can label the seven continents.

Rocket words

- continent
- atlas
- world
- globe
- country

Implementation

Starter

Use a world map and a globe to locate the United Kingdom. Can the children remember which continent the UK is in? In this lesson, the children will be learning about continents. Assess their knowledge (and any misconceptions) by asking what a continent is and if the children can name any.

Main Teaching

Use the lesson presentation to identify, name and locate the seven continents: Asia, Africa, North America, South America, Europe, Antarctica and Oceania, also known as Australasia. In the presentation, the children will be introduced to some countries within each continent.

Careers: A travel journalist visits different places around the world, writes stories about what they see, and shares exciting facts about people, animals, and landmarks so others can learn about them too! If you could travel anywhere in the world, where would you go and why?

Mission Assignment

In partners,ask the children to use an atlas to locate and label the seven continents of the world.

Challenge Task: Ask the children to name some countries within each continent. As an oral task, children can use the map to think of facts they've learnt about the continents. For instance, Asia is the largest continent; the UK is in Europe; Africa is famous for its wildlife.

Impact Assessment

Plenary

With the children, discuss some countries within each of the continents. Do the children have any experiences of them?

Teacher Mastery

A continent is a large, continuous landmass that is usually defined by geographical boundaries (mountains, seas, etc.). The seven continents vary widely in size and population. For instance, Asia is the largest and most populous, while Oceania is the smallest. The five oceans (Atlantic, Pacific, Indian, Southern and Arctic) are essential to mention alongside the continents as they separate these landmasses and play a key role in climate and ecosystems. Be sure to point out that Antarctica, despite being a continent, does not have permanent inhabitants beyond scientists.

There is debate surrounding the continent of Oceania. It is also known as Australasia in some parts of the English-speaking world, and in the US it is the whole region is widely referred to as Australia.

- Children often confuse countries and continents. Make it clear that a continent is made up of many countries, and a country is a defined political area within a continent. Sometimes students struggle with understanding why Europe and Asia are separate continents when they are part of the same landmass. Explain that continents are defined not only by geography but also by cultural, historical and political boundaries. Some students might think Antarctica is always snow-covered and has no life. While it is a frozen continent, it has a range of wildlife and research stations, which helps differentiate it from other continents.

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Mission Assignment: 2. What are oceans?

Code: GEO-13-02

Intent

Lesson Outcomes

- Name the five oceans of the world
- Name and locate the five oceans of the world
- Name, locate and use directional language to describe the position of the five oceans of the world

National Curriculum

Name and locate the world's seven continents and five oceans

Resources

Resources: The handout, a globe or world map and pencils.

Support Handout (1): The handout provides a word bank so the children can label the five oceans.

Core Handout (2): Use the handout from the previous lesson. Label the five oceans on the world map.

Challenge Handout (4): The handout provides a scaffold for writing sentences explaining the locations of the oceans.

Rocket words

- Arctic Ocean
- Atlantic Ocean
- Southern Ocean
- Indian Ocean
- Pacific Ocean

Implementation

Starter

Recap the seven continents and ask the children to locate them on a map. Explain to the children that in this lesson they will be learning about the large expanses of water that separate the continents, called oceans.

Main Teaching

Use the lesson presentation to introduce the children to the five oceans of the world: Pacific, Arctic, Atlantic, Indian and Southern. During this lesson, the children will begin to recognise the difference between land and sea on a world map and understand that oceans are an important habitat.

Careers: A marine biologist studies ocean animals like dolphins, turtles, and fish to learn how they live and help keep them safe. What is your favourite sea creature?

Mission Assignment

Ask the children to locate and label the five oceans. There is a handout to do this or children can add to their maps from the last lesson.

Challenge Task: Using the compass points, ask the children to write a sentence explaining where the oceans are located. For instance*: The Atlantic Ocean is West of Europe.*

Impact Assessment

Plenary

As a class, use the compass points and positional language to discuss the location of the five oceans. For instance, the Indian Ocean is located *between* Africa, Asia and Australia; the Atlantic Ocean is *west* of Europe.

Teacher Mastery

- Oceans are vast bodies of saltwater that cover about 71% of the Earth's surface. The five oceans - Pacific, Atlantic, Indian, Southern and Arctic - play crucial roles in regulating the planet’s climate, supporting marine life and connecting continents. The Pacific Ocean is the largest and deepest, while the Arctic Ocean is the smallest and shallowest. Oceans act as natural boundaries between continents. For instance, the Atlantic Ocean separates Europe and Africa from the Americas, while the Indian Ocean lies between Africa, Asia, and Australia.

Some students may confuse oceans with seas, rivers or lakes. Clarify that oceans are much larger, and seas are often partially enclosed by land. For example, the Mediterranean Sea is part of the Atlantic Ocean but is almost entirely surrounded by Europe, Africa and Asia.

- The Pacific Ocean is the largest and lies between Asia and the Americas.
- The Atlantic Ocean is between North America/South America and Europe/Africa.
- The Indian Ocean is between Africa, Asia and Australia.
- The Southern Ocean surrounds Antarctica.
- The Arctic Ocean is in the far north, encircling the Arctic region.

Oceans are not just vast bodies of water, but critical habitats for marine life, play a significant role in global weather patterns and serve as major routes for international trade. You can also discuss how oceans provide resources like food and oxygen, which is produced by marine plants such as phytoplankton.

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Mission Assignment: 3. What is it like in the North and South Poles?

Code: GEO-13-03

Intent

Lesson Outcomes

- Name and locate the North and South Poles
- Locate the North and South Poles and identify what would be found there
- Identify features of the North and South Poles

National Curriculum

Use world maps, atlases and globes to identify the United Kingdom and its countries, as well as the countries, continents and oceans studied at this key stage

Resources

Resources: The handout, a globe or map, scissors and glue.

Core Handout (2): The handout provides pictures for the children to cut out and sort into a table to show what would and would not be found in the North and South Pole.

Stretch Handout (3): The handout provides a table for the children to draw and label pictures to show what might be found at the North Pole, South Pole and things that are not found at either.

Rocket words

- North Pole
- South Pole
- Antarctic
- Arctic
- iceberg

Implementation

Starter

Recap the children's prior learning by locating the seven continents and the five oceans on a world map or globe. Ask the class if they know where the North and South Pole are located. What do the children already know about these areas?

Main Teaching

Use the lesson presentation to locate the North and South Poles. The children will begin to understand that it is much colder at the poles. *(Teacher Knowledge: the sun's rays are less concentrated at the poles, which is why it is colder.)* Address the misconception that Antarctica is long and thin because of how it looks on a world map - its true shape can be seen on a globe. The presentation will show the children that grass, trees and plants do not grow at the poles as it is too cold. They will then be introduced to some of the wildlife that live there.

Careers: A polar scientist explores the icy North and South Poles to study snow, ice, animals, and the weather to help us understand these cold places better! Would you like to visit the North or South Pole? Why?

Mission Assignment

Ask the children to sort a selection of pictures to show what might be found in the North and South Poles and what wouldn't be found there.

Optional cross-curricular art task: Create a polar scene.

Challenge Task: Can the children explain their reasoning for what would and would not be found at the North and South Poles?

Impact Assessment

Plenary

Take a closer look at penguins. There are no penguins in the Arctic. One reason for this may be that penguins haven’t spread further north because they can’t fly, which limits their ability to migrate.

Teacher Mastery

- Located in the Northern Hemisphere, the North Pole is found in the middle of the Arctic Ocean, surrounded by icy seas and frozen tundra. Unlike the South Pole, which is on land, the North Pole is a region of floating sea ice, which makes it less stable for long-term research stations. The South Pole is situated on the continent of Antarctica, which is the southernmost landmass. It is far colder than the Arctic due to its high altitude and location on a landmass covered by thick ice sheets. Antarctica is also considered the driest continent, despite being covered in snow and ice. The Earth’s tilt causes the poles to have six months of continuous daylight in the summer and six months of darkness in the winter. It’s much colder at the poles because the sun’s rays strike the Earth at a lower angle, spreading out over a larger area and thus providing less heat.
- • Many world maps distort Antarctica, making it appear long and narrow. A globe or accurate map projection shows its true, circular shape. Be sure to explain that map projections can change how we view areas, especially those near the poles. It’s also common for pupils to think polar bears and penguins live together. Clarify that polar bears are only found in the Arctic (North Pole), while penguins live in Antarctica (South Pole).
- • The polar regions are some of the coldest on Earth, with temperatures regularly below freezing. This extreme cold is due to their location far from the equator, where sunlight is weakest. Because of the harsh climate, the poles lack trees, grass, and other plant life. In the Arctic, some mosses and lichens can survive, but Antarctica is almost entirely devoid of plant life.

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Mission Assignment: 4. What is the equator?

Code: GEO-13-04

Intent

Lesson Outcomes

- Locate the equator on a map or globe
- Name some things that might grow at the equator
- Explain the differences between the equator and the North or South Poles

National Curriculum

Use world maps, atlases and globes to identify the United Kingdom and its countries, as well as the countries, continents and oceans studied at this key stage

Resources

Resources: The handout, a globe or map, pencils and colouring pencils.

Core Handout (2): Use the handout from lessons 1 and 2. Label the equator and draw the vegetation that grows there.

Challenge Handout (4): The handout provides a scaffold and a word bank for the children to write a short explanation of the difference between the equator and the poles.

Rocket words

- rainfall
- vegetation
- geographer
- climate
- equator

Implementation

Starter

Recap the children's prior learning by discussing the North and South Pole. Can the children talk about what might be found there? Can they compare the North and South Pole to where they live? Ask the children to locate the North and South Pole on a globe. Introduce the equator by showing this line on the globe.

Main Teaching

Use the lesson presentation to help the children understand that geographers use an imaginary line around the world to show the locations halfway between the North and South poles. The children will learn that countries around the equator are much warmer than the Poles; they are warm and wet and lots of vegetation can grow. Use an atlas and a globe to show the location of the equator and how it stretches across the world.

Mission Assignment

Using the world map the children started labelling in Lesson 1, ask the children to draw the equator and label it. The children will then draw some things that might grow at the equator.

Challenge Task: Ask the children to write a short explanation of the difference between the equator and the poles. For example: *At the equator, the land is warm and it rains a lot. Plants grow well around the equator. The North Pole and the South Pole are very cold, so plants and trees cannot grow.*

Impact Assessment

Plenary

Ask the children to discuss whether they would prefer to visit the North Pole, South Pole or a country on the equator. What would they need to pack in their suitcases?

Teacher Mastery

- The equator is an imaginary line that divides the Earth into the Northern and Southern Hemispheres. It is located exactly halfway between the North Pole and South Pole, at 0° latitude. Areas near the equator are known for their warm, tropical climate. The sun is nearly directly overhead throughout the year, leading to constant warmth and high rainfall. These regions experience little seasonal variation in temperature but often have distinct wet and dry seasons. Tropical rainforests thrive along the equator due to the warm, wet conditions. Countries such as Brazil, Indonesia and the Democratic Republic of Congo are home to dense rainforests with diverse ecosystems. Common plants include towering trees, lush ferns and exotic flowers.
- • The equator is much warmer than the North and South Poles because it receives more direct sunlight year-round. The Poles experience extreme cold due to the Earth's tilt, which means they receive slanted, less concentrated sunlight. At the Poles, seasons are extreme - six months of daylight followed by six months of darkness - while at the equator, daylight and night are nearly the same length all year. At the equator, dense plant life thrives because of the warm and moist climate, while plants cannot grow at the Poles due to the harsh, freezing conditions.
- • Pupils might think the entire planet has similar weather or temperatures. Explain that latitude affects climate, and the equator is much warmer than areas closer to the Poles. Some children might assume that everywhere experiences four seasons like they do locally. Clarify that equatorial regions have consistent warmth and rainfall patterns, while the Poles have extreme seasonal shifts.

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Mission Assignment: 5. How are rainforests and deserts different?

Code: GEO-13-05

Intent

Lesson Outcomes

- Describe the climate in the rainforest and the desert
- Identify some plants and animals that might live in a rainforest or a desert
- Explain the difference between a rainforest and a desert

National Curriculum

Use world maps, atlases and globes to identify the United Kingdom and its countries, as well as the countries, continents and oceans studied at this key stage

Resources

Resources: The handout, a globe or map, pencils and colouring pencils.

Core Handout (2): The handout provides space for the children to draw and annotate a picture of a desert and a picture of a rainforest.

Challenge Handout (4): The handout provides a scaffold and a word bank for the children to write a short explanation of the difference between a rainforest and a desert.

Rocket words

- desert
- rainforest
- diversity
- humid
- dry

Implementation

Starter

Discuss with the children what they can remember about the Equator. Can they explain some of the differences between the Equator and the North and South Pole? Explain to the children that they will be exploring the rainforest and the desert and discovering their differences.

Main Teaching

Use the presentation to explore and locate rainforests and deserts. The presentation will specifically look at the Amazon rainforest, which is found in South America, and the Sahara Desert, which is found in Africa. The children will learn the key differences between the two areas, such as rainforests are very wet whilst deserts are very dry. The children may have the misconception that all deserts are hot, however, they will begin to understand that some deserts, such as the Gobi Desert, can be very cold, reaching temperatures of -38 degrees in winter. The children should begin to understand that places around the world can be very different, introducing the concept of diversity.

Mission Assignment

Ask the children to draw two pictures, one of a desert and one of a rainforest. Can the children annotate their pictures or orally explain what they have drawn?

Challenge Task: Ask the children to write a simple paragraph to explain the differences between the rainforest and the desert.

Impact Assessment

Plenary

Encourage the children to share their pictures with the class. Can they explain the differences between the rainforest and the desert? Did they know that Antarctica is the largest desert on Earth and the Sahara is the largest hot desert on Earth?

Teacher Mastery

- Rainforests are dense, tropical forests located near the Equator. They receive a large amount of rainfall (usually over 2000 mm per year), which is why they are warm and wet throughout the year. The Amazon rainforest in South America is the world's largest tropical rainforest. The rainforest climate is typically humid, with temperatures ranging between 20-30°C year-round. Because of the constant moisture and warmth, rainforests are home to over half of the world's plant and animal species. Rainforests are characterized by their four distinct layers: the emergent layer (tallest trees), canopy, understory and forest floor. Plants such as vines, epiphytes, tall trees and ferns thrive here due to the consistent warmth and rainfall. Rainforests are teeming with life, from toucans, sloths and jaguars to tiny insects like ants and beetles. This rich biodiversity is supported by the abundance of food and shelter provided by the dense vegetation.

Deserts are dry areas that receive very little rainfall (usually less than 250 mm per year). While many deserts, like the Sahara in Africa, are hot, others, like the Gobi Desert in Asia, can be extremely cold. Hot deserts have extremely high daytime temperatures (often over 40°C) but cool down significantly at night. In contrast, cold deserts experience freezing temperatures in the winter, sometimes dropping to -38°C.

- Desert plants have adapted to the lack of water. Cacti, succulents and shrubs with long roots or water-storing abilities are common. These plants can survive with minimal rainfall and conserve water effectively. Despite the harsh conditions, deserts support unique wildlife. Camels, snakes, scorpions and fennec foxes are among the animals that have adapted to desert life. These creatures often have adaptations like water storage, nocturnal habits or burrowing to escape the heat.
- • Many students believe that all deserts are hot. Introduce the concept of cold deserts like the Gobi, explaining that deserts are defined by their lack of rainfall, not just temperature. Students might think that because rainforests are tropical, they are sunny all the time. Clarify that rainforests are often cloudy due to high humidity and regular rainfall.

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Mission Assignment: 6. Assessment: What do we know about the world?

Code: GEO-13-06

Intent

Lesson Outcomes

- Label the continents and oceans on a world map
- Draw or write about the climate in the North and South Pole and the equator
- Name some living things that live in the rainforest or desert

National Curriculum

Use world maps, atlases and globes to identify the United Kingdom and its countries, as well as the countries, continents and oceans studied at this key stage

Resources

Resources: The handout, a globe or map, pencils and colouring pencils.

Core Handout (2): The handout is a world map for the children to draw and annotate. If the children are working in groups, you may wish to blow up the handout to A3.

Challenge Handout (4): The handout provides some sentence stems for the children to complete to demonstrate their knowledge.

Rocket words

- continent
- ocean
- climate
- diversity
- vegetation

Implementation

Starter

Using a globe or a map as a prompt, ask the children to discuss in pairs what they know about the world. Can they remember some of the areas that have been covered in this unit?

Main Teaching

Use the presentation to recap some of the key learning points of the unit. The presentation will cover the names and locations of the continents and the oceans. It will remind the children of what can be found in the North and South Poles and the areas around the equator. Finally, the presentation will recap the differences between the rainforest and the desert.

Careers: What careers have we explored as part of our unit on 'What do we know about the World?'

Answer: 1. Travel Journalist 2. Marine Biologist 3. Polar Scientist 4. Solar Energy Engineer 5. Rainforest Scientist

Mission Assignment

The children can work independently, in pairs or as part of a small group, to demonstrate their knowledge of a world map. Ask them to draw or annotate all the areas that they have learnt about on the world map provided. Ask them to label the continents, oceans, North and South Poles and the equator. Encourage them to draw the plants and animals that live in certain areas. Use this task to assess the children’s understanding of the unit.

Challenge Task: Ask the children to complete some sentence stems that are provided on the handout.

Impact Assessment

Plenary

Ask the children to present their maps to each other, explaining their knowledge. Use this as an opportunity to assess the children’s understanding of the unit.

Teacher Mastery

- There are seven continents: Asia, Africa, North America, South America, Europe, Australia and Antarctica. Each continent has distinct physical features and climates. The five oceans are the Pacific, Atlantic, Indian, Southern and Arctic. Oceans are essential in regulating the Earth’s climate and supporting marine life.
- • The Poles are the coldest regions on Earth. The North Pole is in the Arctic, while the South Pole is in Antarctica. The cold climate is due to the Earth’s tilt, which causes the Sun’s rays to be less concentrated there. Very few plants grow, but animals like polar bears (North Pole) and penguins (South Pole) have adapted to survive.
- • The equator is an imaginary line that divides the Earth into the Northern and Southern Hemispheres. It is located midway between the Poles, where the Sun’s rays are most direct. Countries along the equator experience warm, humid climates year-round, which is why rainforests thrive there.
- • Rainforests have high rainfall and temperatures, creating ideal conditions for a wide variety of plants (like vines, tall trees and ferns) and animals (such as jaguars, monkeys and toucans). Deserts, like the Sahara Desert, receive very little rainfall. They are either very hot (like the Sahara) or very cold (like the Gobi Desert). Plants such as cacti and animals like camels have adapted to survive in these harsh, dry conditions.