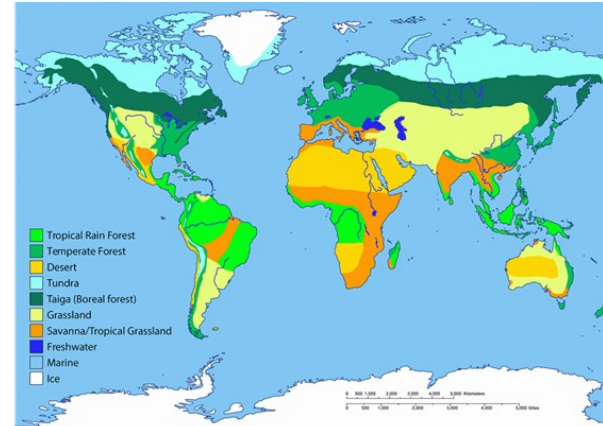


Biomes

What do you remember?



- What is a biome?
- What are biomes based on?
- What are the two categories of biome?
- What is the difference between these two?



Which terrestrial biomes are these?





Tropical rainforest biome



Desert biome



Taiga biome



Temperate
deciduous forest
biome



Tundra biome



Grassland biome



Savannah biome

LO: To describe and explain a Tundra biome

- relate knowledge of the location of biomes to the location of climate zones.
- Make some generalisations (display an understanding of geographical location)
- Organise information about the worlds biomes (by using the knowledge webs)
- Describe how human processes affect biomes
- Point out the human processes that affect each biome
- Relate knowledge of biomes to your knowledge of human processes.
- Draw conclusions as to why humans behave as they do in response to the conditions within the biome.

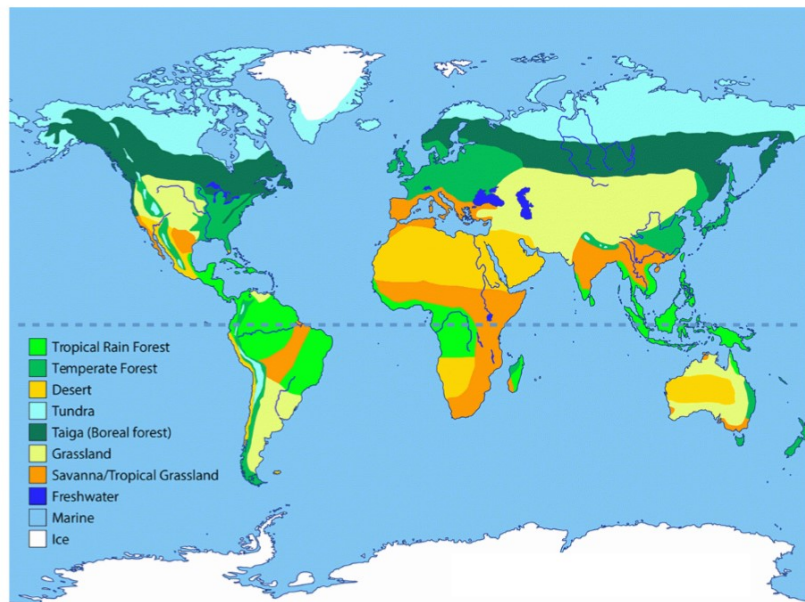
Today we will explore Tundra Biomes.
What do we know about Tundra biomes?



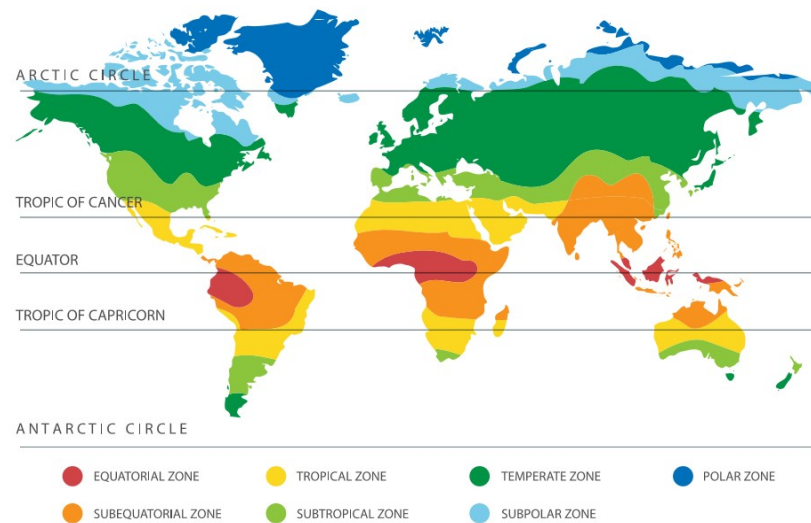
Where are Tundra biomes located and in which climate zones?

Why do you think this is?

Location of Earth's biomes



Location of Earth's climate zones



permafrost:

ecosystems:

hibernate:

migrate:

clusters:

permafrost: soil that is permanently frozen

ecosystems: all the conditions, plants and animals that exist in a particular area.

hibernate: lie dormant (asleep) through summer

migrate: travel to another area

clusters: groups



Watch this National Geographic video. Share what you have learnt with your partner.

You are allowed to highlight 20 words. Which are the important ones?

The tundra biome is a cold and treeless area where harsh conditions make it hard for plants and animals to survive. The word 'tundra' comes from the Finnish word *tunturia*, which means treeless land. There are two types of tundra: arctic and alpine. The arctic tundra is located within the Arctic Circle, while the alpine tundra is the area high in the mountains above trees. Around 20 per cent of the Earth's land surface is tundra.

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Use this key vocabulary to tell your partner about a Tundra Biome.

cold - treeless - harsh conditions - hard - plants - animals - survive.

Two types - arctic - alpine.

located - Arctic Circle. high - mountains - trees.

20% - Earth's land.



Location



The arctic biome is the land to the south of the Arctic Ocean in the northern hemisphere. This biome stretches across northern Canada and Alaska, Siberia and northern Scandinavia. Alpine tundra can be found in mountainous areas such as the Rockies, Sierra Nevada and Cascade mountains in North America, the Andes in South America, the Himalayas in Asia, the Alps and Pyrenees in Europe, and the Eastern Rift mountains of Africa.

Read the information and answer the questions.

Where is the arctic biome found?

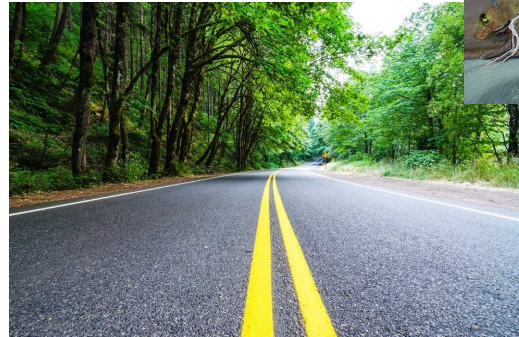
Which locations is it in?

Where are Alpine tundra found?

What do you think the physical features of a Tundra biome are?

- grassy flat plains
- cannot support trees (too cold/harsh growing conditions)
- winters: extremely cold (below minus 34 degrees Celsius)
- summers: two months (3 to 12 degrees Celsius)
- Permafrost: very few species survive

How do you think human processes affect the Tundra biome?



How do you think human processes affect the Tundra biome?

- Oil spills
- kill wildlife
- damage tundra ecosystems
- Buildings and roads
- heat and pressures permafrost
- melt

Diversity: What flora and fauna do you think exists in a Tundra biome?

How might the location and climate affect this?

- sustains life, even in extremely low temperatures
- flowers: 400 varieties
- animals: 48 types
- population fluctuates (changes throughout the year)
 - hibernate and migrate (winter)
- largest animal: polar bear / eats fatty meats (mainly seals)
- arctic fox, caribou and snowy owl
- plants: grow in clusters - protected from severe winds

Discuss with your partner:

- Is there life?
- Why is this surprising?
- How many flowers and animals?
- Why does the population fluctuate?
- How the polar bear survive?
- Why do plants grow in clusters.



A challenge from David Attenborough - create a short video for National Geographic to educate other children about Tundra biomes.

Use these headings to organise your ideas.

- Quick summary
- Location
- Physical features
- Human processes
- Diversity



If you need inspiration, watch this
young presenter in action



Work in groups of three. Each person should complete one or two sections. Make notes and a script to help you.