

Year 5 Autumn 2: What threats do the world's biomes face?

Tundra Biome

A biome is a region in nature that has a community of living things. There are many different biomes around the world and they vary depending on their climate. The tundra is the world's coldest biome.

Locations

Most tundra biomes are located in the northern hemisphere. They cover around 20% of the Earth's surface. Arctic tundra are found above the Arctic Circle and Alpine tundra are located at high elevations, such as at the tops of mountains.

Wildlife

The tundra is home to animals that have adapted to the harsh environment, including caribou and lemmings. Many tundra animals have coats of thick fur or layers of fat to insulate them against the cold. Some birds migrate to the tundra during the warmer, growing season.



Vegetation

The word tundra comes from the Finnish word 'tunturia' meaning 'barren land'. As the ground is usually frozen, it is difficult for plants to develop a root system. There are very few trees in the tundra. Species that have adapted to survive include grasses, shrubs, lichen and moss.

Weather

The tundra is similar to a desert in that it has very low amounts of precipitation. It has long periods of very cold weather and a short, slightly warmer growing season. For most of the year, the tundra is a frozen landscape.



Case Study

Name

Davis Highlands Tundra

Location

Northern Canada

Description

The region includes the Baffin Mountain chain and a coastal plain.

Weather

Long, cold winters and short, cool summers. The average annual temperature is around -11°C (12°F).

Wildlife and Vegetation

Land mammals found here include the polar bear, Arctic fox and Arctic hare. Marine mammals include whales, seals and walrus. Mosses, lichen and small shrubs grow here.

Desert (Hot) Biome

A biome is a region in nature that has a community of living things. There are many different biomes around the world and they vary depending on their climate. A hot desert biome is extremely dry all year and temperatures can be very high.

Locations

Both hot and cold deserts cover around one-third of the Earth's surface. Most hot deserts are in the tropics regions on either side of the equator.



Vegetation

Plant life is sparse but the plants that do survive have found ways to conserve water. Cactuses, for example, have wide stems to store water and spines to prevent animals eating them.



Wildlife

Animals have adapted to the dry conditions and extreme temperatures. Camels store fat in their humps which helps to release heat. Desert rabbits, hares and foxes have large ears that allow heat to escape from their bodies. Many creatures are more active at night when it is cooler.

Weather

Days are typically very hot and nights can become very cold. There is little moisture in the air and rainfall is rare.

Case Study

Name

The Lut Desert, also known as Dasht-e Lut

Location

Iran

Description

Lut consists of salt plains, peaks of clay and silt and enormous areas of sand.

Weather

Lut is one of the hottest and driest places on Earth. Extreme winds across the desert plateaus can transport huge amounts of sand and create some of the tallest sand dunes in the world.

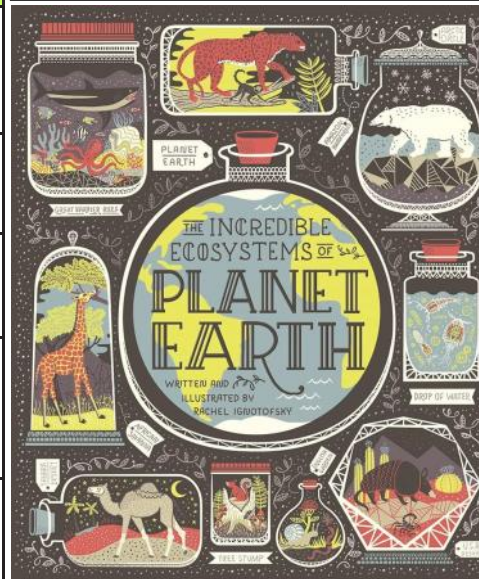
Wildlife and Vegetation

Spider geckos, desert foxes and invertebrates including spiders survive here.

Key Vocabulary

biome	An area of the world with a particular climate and is where animals and plants with similar characteristics live together.
tundra	A treeless plain in arctic regions with a permanently frozen layer.
desert	Arid land with sparse vegetation and a very warm climate.
climate	The weather conditions prevailing in an area in general or over a long period.
Conservation	The prevention of wasteful use of resources.

Key texts



Computing

- To know what a video is.
- To understand different filming techniques.
- To use a storyboard to plan a video.
- To import and edit a video.

RE

- To know define forgiveness and know what it means.
- To find examples of forgiveness in The Bible.
- To know about the Truth and Reconciliation commission.
- To know about the principles of forgiveness in Hinduism.
- To know how Hindu teaching influenced the actions of Gandhi.

Science

- To know the part played by evaporation and condensation in the water cycle.
- To know the properties of solids, liquids and gases.
- To know that some materials will dissolve in liquids to form a solution.
- To know how mixtures might be separated .

Geography

- To identify and locate the Earth's biomes.
- To explore the features of a tundra and a desert.
- To investigate how biomes are being damaged.
- To explore ways in which we can preserve our planet's biomes.

DT

- To know some seasonal ingredients and how to use them.
- To choose ingredients for a meal.
- To design a meal using research and opinion.
- To prepare, cook and evaluate a meal.

Maths

- I can find square and cube numbers.
- I can multiply and divide by 10, 100 and 1000.
- To find equivalent fractions.
- To convert and order fractions
- To add and subtract fractions.

Spelling

- Words ending in –ence
- Words with the ee sound spelt ei
- Words ending in –ant