

# Alder Coppice Primary School — Knowledge Organiser

## Geography

**Year: 5**

## Unit 1: Biomes & Rainforests

**Links to:** Year 2 - Continents & Oceans, Year 3— Mountains, Year 4 Water, Weather & Climate & Rivers



Diversity

### Tropical Rainforest

- Very steady temperature between 20°C and 25°C.
- Rains all year long.
- The trees are very tall and varied.
- Most of the plants are evergreen, not



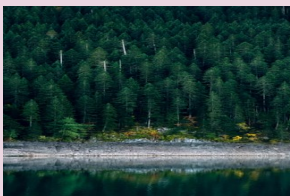
### Temperate Deciduous (Broadleaf) Forest

- Temperature ranges from -30°C (very cold) to 30°C
- Goes through all *four* seasons
- Range of trees: most lose their leaves in the autumn because they are **deciduous**



### Coniferous Forest (Taiga)

- Temperature ranges from -54°C and 30°C
- Low average temperature
- Most of the trees are evergreen
- Largest land biome



### Tundra

- Temperature ranges from -34°C to 6°C.
- Coldest of all the biomes.
- Little rain, lots of frost.
- No trees grow, and only a few small plants.



### Grasslands (Savanna)

- Dry season and a rainy season.
- Temperature ranges from -40°C to 40°C+.
- Mostly grass grows, occasional individual trees.



### Desert

- Temperatures over 50°C in the day and below freezing (0°C) at night
- Very few clouds and very little rain
- Very few plants (flora) or animals (fauna)



## Vocabulary

**Biome** – A large area of land with a particular climate, type of plants and animals

**Ecosystem** – A community of living and non-living things that work together

**Climate** – The general weather conditions and patterns in an area

**Deciduous** – A tree that sheds its leaves in the Autumn

**Equator** – The imaginary line that runs around the middle of the Earth

**Fauna** – Animals that normally live in a particular biome

**Flora** – Plants that normally grow in a particular biome

**Temperate** – Mild weather, further away from the equator

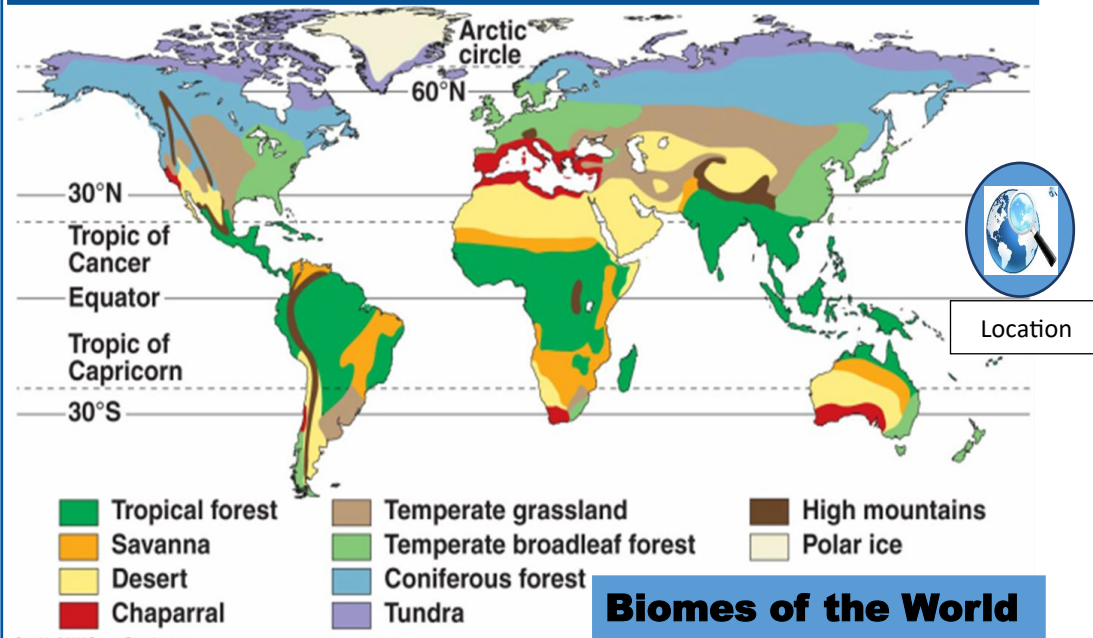
**Latitude** - imaginary lines that go around the earth horizontally

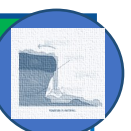
**Tropics** – the areas between the Tropic of Cancer, Tropic of Capricorn and the Equator – the hottest parts on earth

**Tropic of Cancer and Tropic of Capricorn** – Imaginary lines north and south of the equator. Most rainforests can be found between these two lines.

**Deforestation** – Cutting down a wide area of trees

**Habitat** – The natural environment of an animal, plant or organism





## Tropical Rainforest

### Physical Features

### Layers of the rainforest



#### The Emergent Layer

Giant trees that stick out above the canopy. They are much taller than average canopy trees. Many birds and insects live here.

#### The Canopy

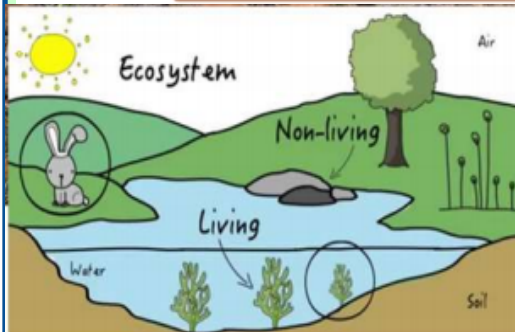
The upper level of the trees (leaves and upper limbs) that form the cover over the lower layers. Full of life, this layer is home to many insects, birds, reptiles and mammals.

#### The Understory

The cool, dark environment that is between the canopy and the ground.

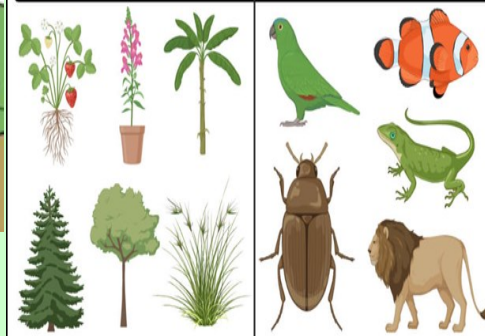
#### The Forest Floor

The ground layer of the rainforest, teeming with insect life and a host to the biggest animals of the rainforest.



An ecosystem, is the *interaction* of living and non-living things in an environment.

### Differences between Flora and Fauna



**Rainforests** are often called the lungs of the planet for their role in absorbing carbon dioxide, a greenhouse gas, increasing local humidity and producing nourishing rainfall all around the planet.

#### Rainforests:

- help stabilize the world's climate;
- provide a home to many plants and animals;
- maintain the water cycle;
- protect against flood, drought, and erosion;
- are a source for medicines and foods;
- support tribal people.

#### Deforestation (The removal of trees):

It is estimated an area of rainforest about the size of a football pitch is destroyed each second and leaves devastating effects on the climate. This can be done for a number of reasons, including logging, farming, road building and for new settlements.

The loss of trees and other vegetation can cause climate change, desertification, soil erosion, fewer crops, flooding, increased greenhouse gases in the **atmosphere**, and a host of problems for people of the rainforest.



The Amazon—largest rainforest in the world!

### How biomes are being damaged by Climate Change

**Evolution**—Animals and plants have taken thousands of years to adapt to the conditions in which they live and millions of plant and animal species are suddenly facing an uncertain future, due to climatic changes.

**Rising Sea Levels**—The rise in temperature in the last century has had an impact on the polar ice caps, melting ice causes sea levels to rise.



**Desertification**—Desertification is also a problem as more and more land becomes desert due to rising temperatures and slash and burn techniques are used (an agricultural process where plants are chopped down and then burnt) to clear land for farming and housing.



### Human Processes