

What should I already know?

Understanding basic map skills, including continents, oceans, and countries.
 Knowledge of weather patterns, including how climate affects different regions.
 Basic understanding of ecosystems and how living things depend on each other.
 Awareness of human impact on the environment, such as pollution and climate change.
 Knowledge of some key rivers around the world including the Thames and the Nile.
 Knowledge of the main biomes and climate zones around the world, including rainforests.

Geographical skills and fieldwork

Compare aerial photographs and digital maps of the Amazon and the Forest of Dean.
 Analyse deforestation data using time-lapse videos and satellite imagery.
 Conduct fieldwork in the Forest of Dean to observe forest management practices.
 Gather information from local forestry rangers about sustainable techniques.
 Present findings through maps, graphs, and visual displays to communicate research on rainforests and deforestation.

Did you know?

- The Amazon rainforest, located in South America, spans nine countries, including Brazil and Peru, and is the largest tropical rainforest, covering about 2.1 million square miles.
- Rainforests make up about 2% of Earth's surface and are home to over half of the world's animal and plant species.
- The Amazon produces more than 20% of the world's oxygen, with average temperatures ranging from 18 to 22 degrees Celsius.

Deforestation

One reason why deforestation occurs is to create space for farming, building and logging, which helps people make money. Another reason is to collect valuable resources like wood, minerals and oil.

However, deforestation is harmful because it destroys homes for many animals and plants, causing them to disappear. It also contributes to climate change by releasing carbon dioxide into the air.

Sustainable forest management means using forest resources carefully and responsibly, so we can meet our needs today while keeping forests healthy for future generations. This includes planting new trees, protecting wildlife, and making sure we only take what we need, allowing forests to grow back and thrive over time.

Layers of the Rainforest

Emergent Layer

Consists of the tallest trees, some birds, and insects.
 No animals live here

Canopy Layer

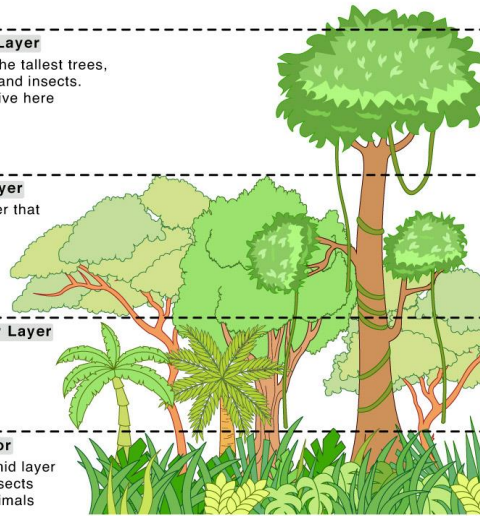
Thickest layer that hosts most flora and fauna

Understory Layer

Consists of young herbs, shrubs, and bushes

Forest Floor

Darkest, humid layer that hosts insects and giant animals



The Amazon



The Forest of Dean

Technical vocabulary

Deforestation	The removal of large areas of trees from forests, often to clear land for agriculture, logging, or development.
Biodiversity	The variety of different species of plants, animals, and organisms in a particular environment, which is essential for ecosystem health.
Sustainability	Using resources in a way that meets our needs today without harming the environment or using everything up for future generations
Equator	An imaginary line that runs around the center of the Earth at equal distances between the North and South Poles.
Ecosystem	A community of living organisms, such as plants and animals, interacting with their physical environment, like the air, water, and soil.
Canopy	The upper layer of the rainforest formed by tree branches and leaves, which is home to many plants and animals.
Global Warming	The gradual increase in the Earth's temperature due to the build up of greenhouse gases in the atmosphere, largely caused by human activities such as deforestation and burning fossil fuels.
Reforestation	The process of planting trees in areas where forests have been cut down, aiming to restore ecosystems and biodiversity.
Biome	A large region of the world that has similar climate, plants, and animals. Examples include tropical rainforests, deserts, and tundras
Conservation	The protection and careful management of the natural environment to prevent its destruction or degradation, particularly applied to forests and wildlife.

What will I know by the end of the unit?

- We will learn the causes and effects of deforestation, particularly in the Amazon Rainforest.
- We will understand the importance of biodiversity and how deforestation threatens species.
- We will learn how sustainable forest management, like in the Forest of Dean, helps preserve ecosystems.
- We will recognise the global impact of deforestation, including on climate change and global warming.
- We will understand how individuals can help protect rainforests by supporting conservation efforts, making sustainable choices, and reducing waste.
- We will develop skills to debate both sides of the argument: is it ever right to cut down trees?

