GCSE Ecology & Human Impact

Prior Learning

Know that plants are producers at the start of food chains, draw simple food chains and pyramids of numbers

Organisms are suited to their habitats

Adaptation

Animals & plants evolve & change to suit & thrive in their habitats

Food chains & Webs

Identify producers,

consumers & decomposers in food chains & webs

Draw pyramids of biomass

Nutrient Cycles

Describe the Carbon

& water Cycles

& identify key processes

Waste management

Causes and effects of air, water and land pollution

Indicator species

Deforestation & destruction of peat bogs

Importance of rain forests & peat bogs & the effects of their destruction

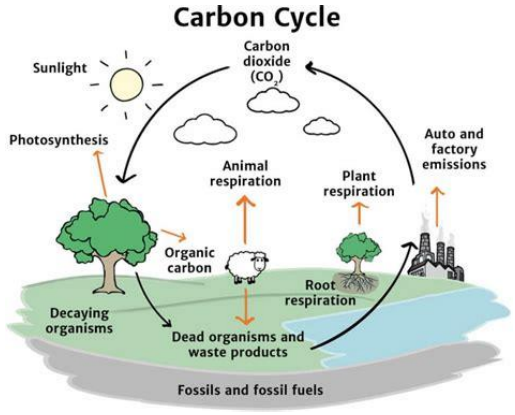
Biodiversity

Importance of biodiversity, how it can be preserved and how human activities can reduce it.

Future Learning

Food security

Food production



Vocabulary:

extremophile, adaptation, producer, primary consumer, herbivore, secondary consumer, carnivore, decomposer, food chain, pyramid of biomass, deforestation,

global warmimg, biodiversity

Human Impact on the Environment

Rapid growth of the human population means more resources are used and more waste is being created, leading to more pollution and biodiversity loss.

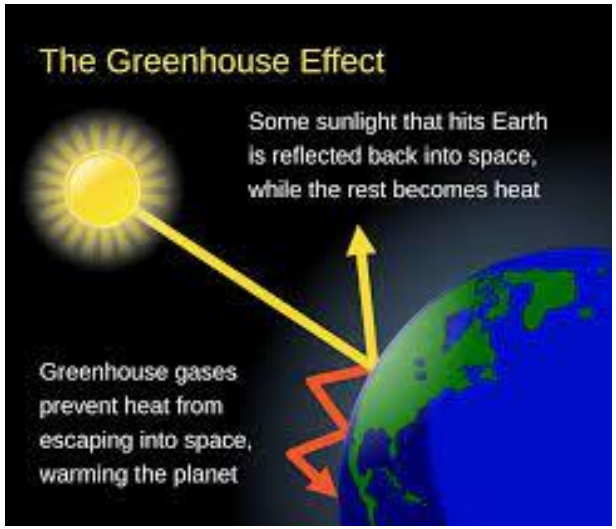
Pollution

Burning fossil fuels releases carbon dioxide and sulphur dioxide that cause air pollution

Fertilisers & pesticides used by farmers wash into rivers and cause water pollution

Waste from landfill releases toxic chemicals and methane

Carbon dioxide and methane are powerful greenhouse gases that are contributing to global warming



Deforestation

Large areas of rainforest are being cut down to build houses, and clear land for agriculture.

This reduces the amount of carbon-dioxide taken in during photosynthesis and exacerbates global warming.

Biodiversity decreases as habitats are destroyed

Lichens are an indicator species, they only thrive in clean air

Peat bogs are carbon sinks, when peat is burnt it releases lots of carbon dioxide. While peat is forming from the decay of sphagnum moss, it releases methane into the atmosphere.

Methods to Maintain Biodiversity

Breeding programmes for endangered species

Regenerate rare habitats

Reintroduce hedgerows

Reduce deforestation

Recycle rather than dumping waste in landfill

Consequences of global warming

Ice caps melt

Flooding and droughts

Changes in migration patterns

Changes to flowering seasons