

The story of bamboo

Bamboo is a type of grass that thrives in warm and wet climates. In parts of Asia, it can form thick forests.

Growing up to 30 metres in height.

Bamboo is one of the world's fastest growing plants, growing up to 4cm in an hour.

Bamboo is one of the world's most useful plants. It can be used in cooking, construction, furniture and even clothing.

There are over 1000 species of bamboo, some of which will survive in cooler temperate climates, including in the UK. There are various reasons why it is a valuable

sustainable resource:

- 1) It regrows from its roots when the stems are cut
- 2) It is extremely fast growing and can be harvested every 3-5 years

Our living world



The Mediterranean biome

Mediterranean diet is a healthy diet based on the foods grown in countries around the Mediterranean Sea such as Greece, Italy and Spain. The diet is high in vegetables, fruit, grains, nuts and seeds. Olive oil is used in cooking and as a salad dressing. It is low in meat and dairy products.

Mediterranean biome encircles the Mediterranean Sea. They have scrub vegetation, consisting of small shrubs and grasses and herbs.

Summers are usually hot and dry. There can be long periods of drought when no rain falls at all. This can be very stressful for plants and animals. Winters are usually mild but can be unsettled with spells of heavy rain. Thunderstorms can occasionally trigger **flash floods** and **landslides**.

Where does my breakfast come from?

Breakfast cereals are an extremely popular food in Western societies. They are made from processed cereal **grains**, such as wheat and rice. The breakfast cereal industry is huge and very profitable. However, traditional breakfast cereals are facing increasing competition from alternatives such as yoghurt and cereal bars. Food 'on the go' is becoming increasingly popular with busy people who are always on the move. Today, many people wish to buy locally sourced food. This supports local farms and businesses. It also reduces the energy needed to transport food for long distances and reduces the fumes emitted into the atmosphere. The transport of these foods may involve thousands of **food miles**.

Ecosystems - who is eating who?

Many different plants, birds and animals live in a temperate **deciduous forest**. The connections between these living organisms, the climate and the soil is called an **ecosystem**. All the living things within an ecosystem depend on each other for their survival.

On a larger scale, global ecosystems can cover huge continental regions. These global ecosystems are called **biomes**.

Coral reefs - rainforests of the seas

A coral reef is a hard, rocky ridge formed on the seabed from the external skeletons of many tiny, coral animals. Coral reefs are one of the richest ecosystems on Earth and are sometimes called the 'rainforest of the sea'. They are home to 25 per cent of all known marine fish (fish that live in the sea).

Where are coral reefs found?

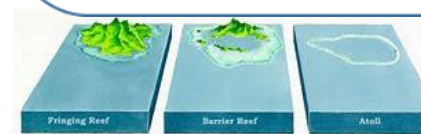
Coral reefs are only located in certain areas of the world because they need very special conditions to survive and thrive.

Temperature- tropical corals only live in seawater with a temperature of 18°C and above.

Depth - corals feed on tiny **algae**, which require sunlight. So coral are found in shallow water where sunlight penetrates through the water.

Salinity - corals require salty water, So they do not live where freshwater reaches the sea from rivers.

Clear water - corals need clear water. Sediment reduces sunlight in the water and can settle on corals, stopping them from feeding.



Producers (e.g. oak leaf) convert energy from the sun into plant food



Primary consumers (e.g. worm) feed on producers



Secondary consumers (e.g. frog) feed on primary consumers



Tertiary consumers (e.g. fox) feed on secondary consumers



Bamboo - a large and very fast growing type of grass that forms stiff, strong stems

Sustainable resources - a long lasting, renewable resources that when used does not damage the environment

Commercial - as a business to make money

Grains - grain-producing cereal crops such as wheat, oats and barley

Locally sourced - food or other items that come from the local area

Food miles - the number of miles that food has travelled from producer to consumer

Staple food - a food eaten in large amounts and supplying most of a person's energy

Deciduous forest - a woodland ecosystem dominated by trees that shed their leaves in winter

Ecosystem - a community of living organisms, and their connections with the climate and the soil

Food chain - links between organisms that feed on each other

Herbivore - an animal that eats only plants

Omnivore - an animal that eats a varied diet of plants and animals

Fungi - organisms that break down dead plants and animals, e.g. mushrooms

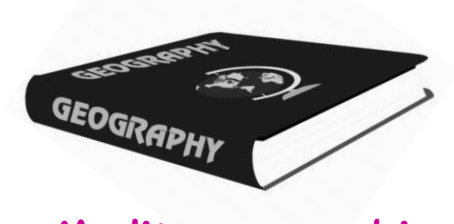
Decomposers - fungi and bacteria that break down dead organic matter, releasing nutrients to support plant growth

Nutrients - plant foods

Carnivore - an animal that only eats meat

Food web - interconnected food chains that make up a large ecosystem

Biome - a global ecosystems, such as temperate deciduous forest or tropical rainforest



Mediterranean biome - a global ecosystem that has long hot summers with little rainfall

Flash flood - a sudden flood, usually due to heavy rain

Landslide - the movement, often very fast, of rock and earth down the slope of a hill or cliff

Coral reef - an underwater ecosystem made up of a ridge or mound of coral

Coral - very small animals with a hard exoskeleton

Algae - tiny plant-like organisms that provide food for coral

Fringing reef - a coral reef developing along a coastline

Barrier reef - originally a fringing reef but now surrounded by deeper water due to sea level rise

Coral atoll - a circular coral reef commonly formed on top of an underwater volcano

Coral bleaching - when coral forces out the algae living in it as a result of higher water temperatures, leaving the coral white

Plain - a low-lying flat area of land

Plateau - a high but generally flat area of land

Thermokarst lakes - small lakes formed by permafrost (frozen ground) melting in the summer