

Food chains

Every living thing forms part of a food chain. Yes, this includes you!

All living creatures need energy to live and grow.

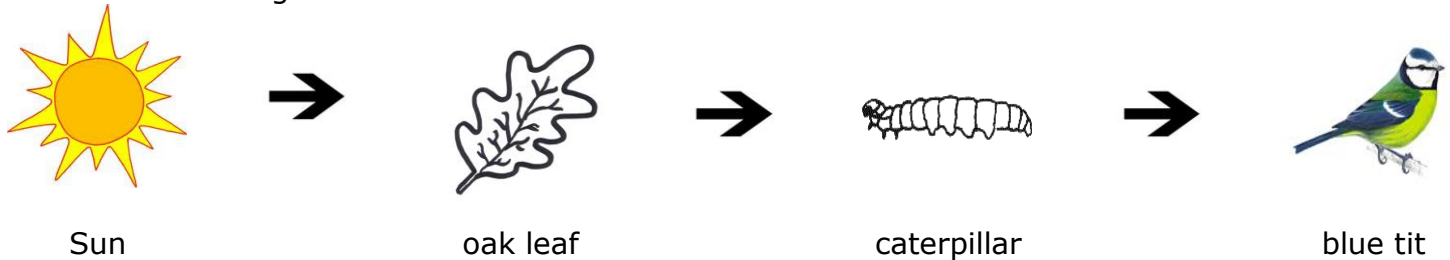
Each food chain starts with energy from the sun (solar energy). Then the next step is always a plant. Plants produce food from the sun's energy, so they are called producers. All the steps after that are animals. Animals consume food by eating plants or other animals, so they are called consumers.

All living things, both plants and animals, are active. Activity comes from energy, and energy comes from the sun. Plants capture that energy through a process called photosynthesis, and bring it into the food chain.

Food chains are really all about energy. In a food chain, the same food doesn't actually move from one living thing to the next. The food is turned into energy to help the animal that ate it to grow and maintain its own body. It is this growth that becomes the food for the next link in the food chain.

Here is a food chain example:

Woodland and hedgerow Food Chain



Some food chains are long. Others are quite short. But the steps always follow the same order. The arrows in a food chain show the direction in which the energy moves.

Not all energy from sunlight enters the food chain. Lots of it gets used in powering wind, waves and water evaporation. But the energy left over gets into plants. As it passes along the chain, a little more is used up at each stage. In fact, animals convert only about 10% of their food energy into growth. The animal uses the rest just to stay alive.

Food chains rarely have more than five links. That is as many as the sun's energy can power through living creatures. This is because most energy has been used up by the time it reaches the last one.

Food chains usually end in a mammal or bird (predators), which are both warm-blooded. Warm-blooded animals use up a lot of energy in generating enough heat to keep their bodies warm and working.

These animals are the top of the food chain.