

## Respiration

The chemical change that takes place inside living cells, which uses glucose and oxygen to release the energy that organisms need to live. Carbon dioxide is a by-product of respiration.



## Biosynthesis

The production of more complex molecules, from simpler ones, in living organisms.



## Limiting factor

A factor which, if in short supply, limits or reduces the rate of photosynthesis, e.g. temperature, light intensity and carbon dioxide concentration.

## **Respiratory substrate**

A substance broken down by respiration to release energy.



## **Aerobic respiration**

Respiration that requires oxygen.



## **Anaerobic**

Without oxygen.

## Oxygen debt

The amount of extra oxygen required by the body for recovery after vigorous exercise.



## Metabolism

All the chemical reactions in the cells of an organism, including respiration.



## Photosynthesis

A chemical process used by plants to make glucose and oxygen from carbon dioxide and water, using light energy.

## Chlorophyll

The green chemical inside the chloroplasts of plant cells. It enables photosynthesis to take place.



## Ventilation

Breathing in and out.



## Chloroplast

Contains the green pigment chlorophyll; the site of photosynthesis.

Fold

## Enzyme

A protein which catalyses or speeds up a chemical reaction.



## Spongy mesophyll

The plant tissue in a leaf which has loosely packed cells and air spaces between them to allow gas exchange.



## Endothermic

A reaction in which energy is taken in.