

## Science Knowledge Organiser

### Y8 Ecosystems: Respiration

#### Aerobic respiration

Glucose + Oxygen  $\longrightarrow$  Carbon Dioxide + Water



#### Anaerobic respiration in animals

Glucose  $\longrightarrow$  Lactic Acid



#### Key Terms:

##### Aerobic respiration

Respiration is a series of chemical reactions, in cells, that breaks down glucose to provide energy and form new molecules.

##### Anaerobic respiration

Releasing energy from glucose when oxygen isn't available. Produces lactic acid in animals. Produces ethanol and carbon dioxide in plants and microorganisms.

##### Fermentation

Anaerobic respiration in microorganisms.

##### Mitochondria

The cell organelle where aerobic respiration takes place in animals and plants.

##### Yeast fermentation

Used in brewing (for ethanol) and baking (for the carbon dioxide).