Yr 8 Science B2.2 and B2.3

Section 1- Aerobic respiration

GLUCOSE + OXGYEN -> CARBON DIOXIDE + WATER + ENERGY

Occurs in **Mitochondria**.
Glucose is a carbohydrate found in food. It is transported around the body in your blood (**plasma**).
Oxygen is carried by red blood cells which contain haemoglobin.

Section 2 - Anaerobic Respiration

GLUCOSE -> Lactic ACID (+ ENERGY)

Does not require oxygen

When you have finished exercising you keep on breathing heavily. The extra oxygen you inhale breaks down the lactic acid. The oxygen needed for this process is called the **OXGYEN DEBT.**

Section 3 - Fermentation

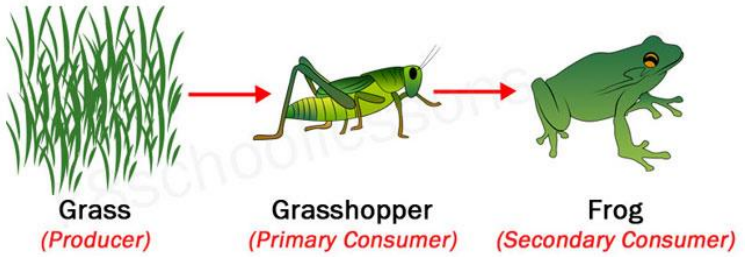
GLUCOSE -> ETHANOL + CARBON DIOXIDE (+ ENERGY)

This type of anaerobic respiration takes place in microbes and plants.

Section 4 - Food chains

Food chains show the flow of energy between organisms when they are consumed (eaten). All food chains must start with a producer. The amount of energy decreases at each trophic level.

The way food chains interact is called a food web.

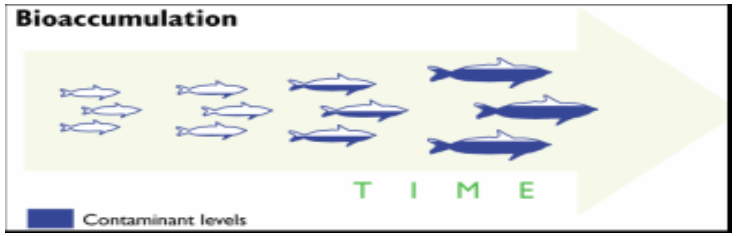


Organisms that only consume meat are called **carnivores**.
Organisms that only consume plants are called **herbivores**.
Organisms that consume both plants and meat are called **omnivores**.

Section 5 - Bioaccumulation

Organisms within a food web depend on each other for survival. This is called **interdependence**.

When chemicals get into the food chain they build up in the trophic levels and eventually reach toxic levels. This is called **bioaccumulation**.



Section 6 - Ecosystems

Ecosystem = living organisms in a particular area and the habitat they live in.
Community = plants and animals found in a habitat.
Habitat = place where an organism lives.
Niche = particular place or role an organism has in an ecosystem.