

6 - Respiration

All living things need energy to live.

The energy comes from **Respiration**.

Respiration happens in every cell in your body.



Respiration is the release of energy from food.

During respiration **oxygen** is needed to break down the food.

Green plants make their own food by **photosynthesis**.

Animals can eat the plants or other animals.



Aerobic Respiration

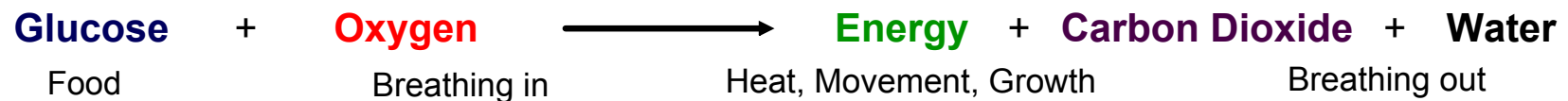
Aerobic - means with Oxygen

When you do Aerobics you are getting Oxygen

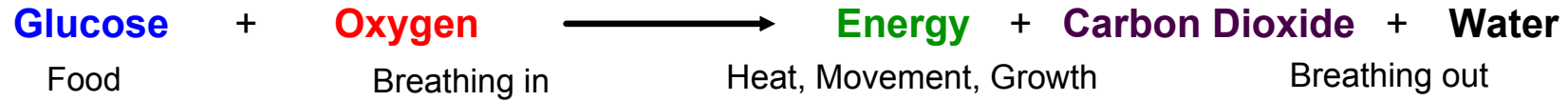


When we burn a crisp it needs **oxygen** to burn and it produces heat energy.

You must learn this equation,

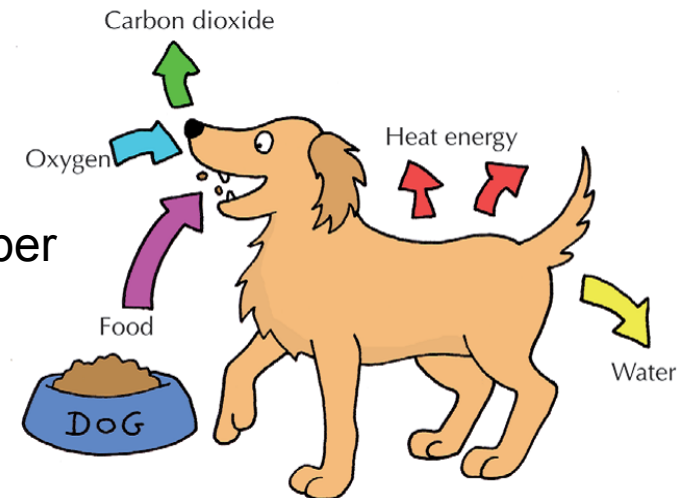


Respiration Equation



We breath in **Oxygen** and we eat **food**.
 The Oxygen 'burns' the food to make **energy**.

Carbon Dioxide and water are produced.
 We can test for these using Cobalt chloride paper
 and using Limewater.



Test for Carbon Dioxide

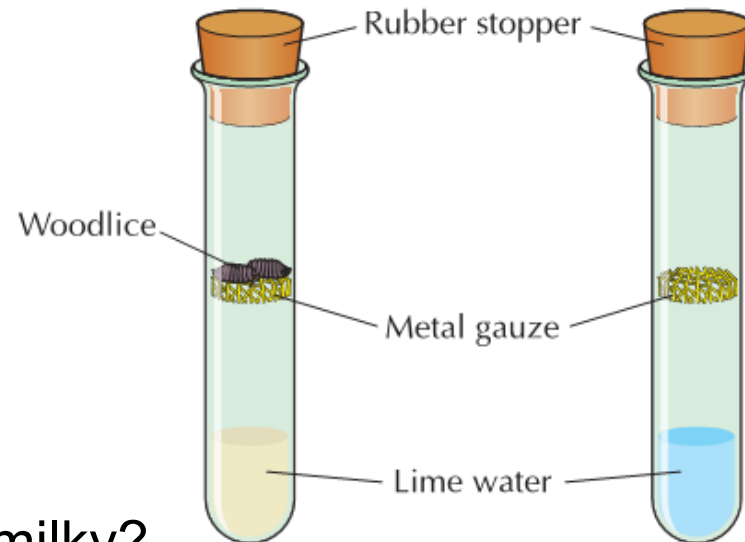
We use a chemical called **Limewater** to test for Carbon Dioxide.

Limewater is a clear colourless liquid.

We exhale **Carbon Dioxide** when we breath out.

If we blow into limewater it turns **Cloudy/Milky**.

Why has the limewater on the left turned milky?



What gas makes limewater turn milky?

Why does the limewater in the first test tube turn milky?

Why does the limewater in the second test tube not turn milky?

Test for Water

When we breath out we exhale CO_2 and H_2O .

We take some **Cobalt Chloride** paper and heat it to get rid of any water.

The paper is a pale blue colour.

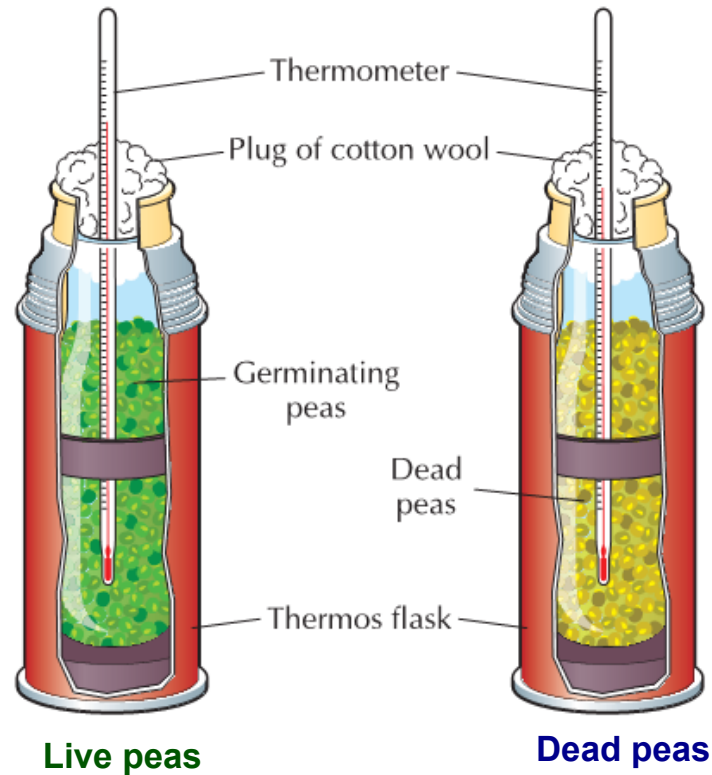
When we breath on the paper it turns pink.

This shows that water is present in our breath.

Cobalt Chloride paper turns from **blue** to **pink** with water



Respiration in peas



Which flask would be warmer?
Why would this one be warmer?
If they were left for too long what might happen?

Respiration in plants

