

Name: _____

Burning fuels

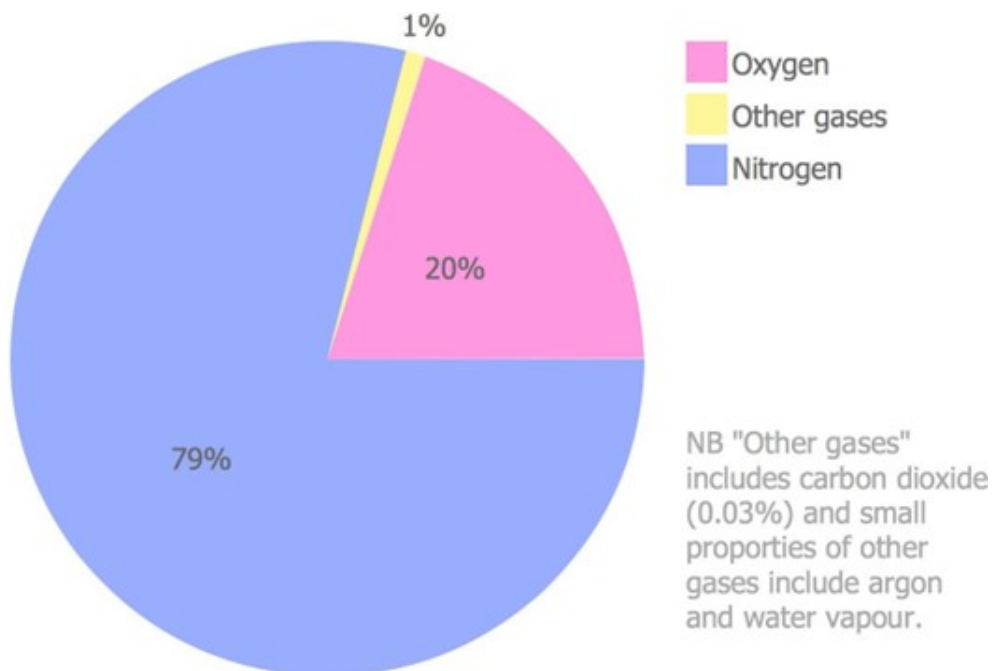
In order for a **fuel** to burn and provide energy, a small amount of **heat** is required to start the burning and **oxygen** also needs to be present. The heat energy that you put in is called INPUT ENERGY. The process of burning is called combustion.

Combustion requires a heat source, fuel and oxygen. These three things makes up the fire or combustion triangle.



The Combustion Triangle

Our air is made up of many gases and about 20% of the air is oxygen.



ACTIVITY

Experiment: Candle burning alone and then covered by glass container

Aim:

To find out what happens when a flame does not have oxygen to help it burn.

Apparatus (all the things we need to do the experiment):

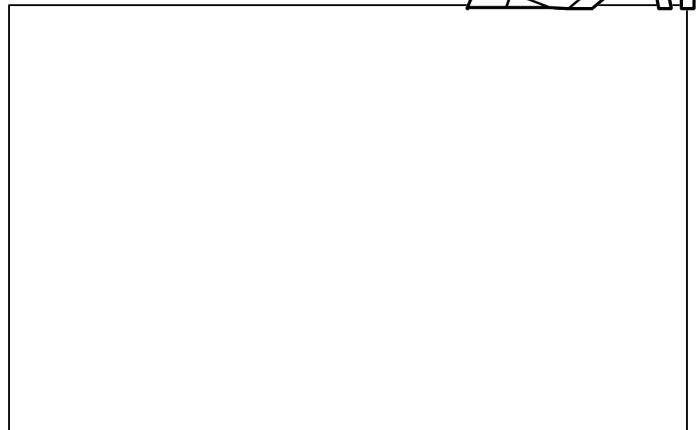
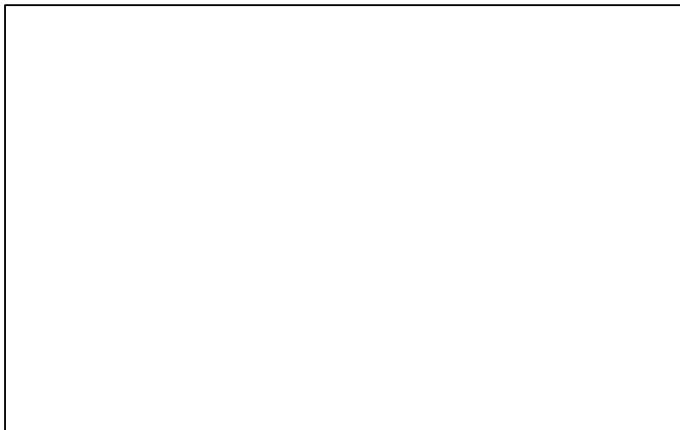
- candle in a candle holder or stuck to a plate
- glass or glass bottle that is longer than the candle
- matches

Method:

1. Light the candle with your teacher's assistance.
2. Watch how it burns.
3. Now turn the empty glass / bottle upside down, with the opening facing the ground.
4. Carefully place the bottle over the candle, covering it completely, so that no air can get in.
5. Watch what happens.

Diagram:

Draw a picture of your experiment, before you put the glass/bottle over the candle and after you did this.

**Results:**

What happened before the candle was covered?

What happened after the candle was covered?

Conclusion:

What is your conclusion?

Further Questions:

If the bottle was bigger, what do you think would happen?

In this experiment, what was the fuel supply and what was the source of heat that enabled the candle to start burning?

What three things make up the combustion triangle?
