

# Chemical Reactions

## Lesson 2 - Oxidation

Chemistry- Key Stage 3

Mrs Walsh



# Oxidation reactions



# Oxidation of copper

What did you observe?

.....

Is this evidence of a chemical reaction?

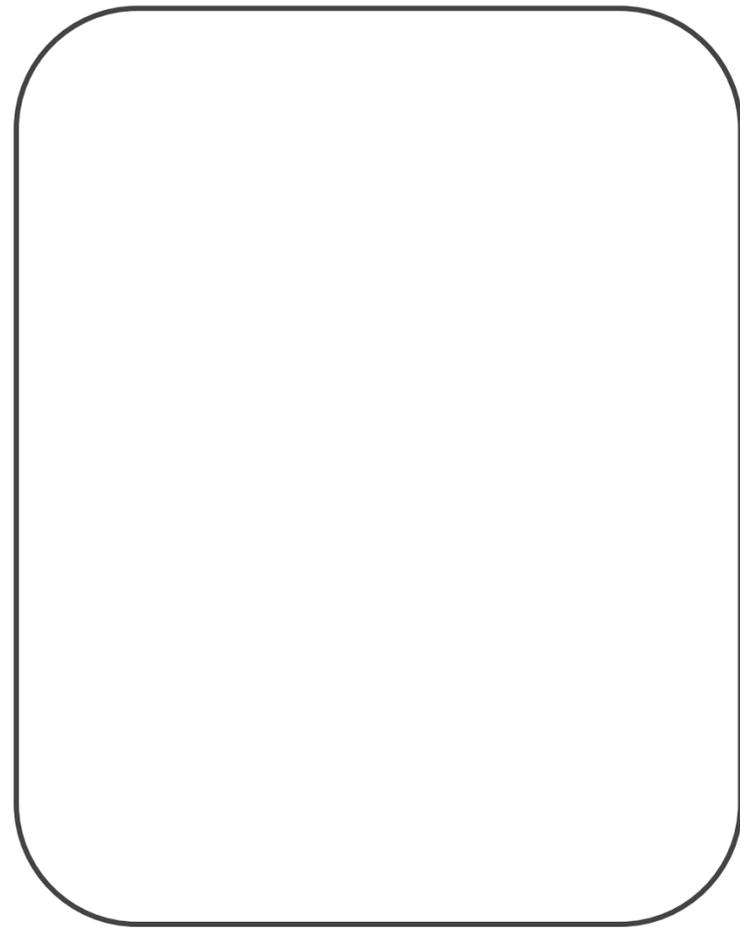
.....

What was the substance produced?

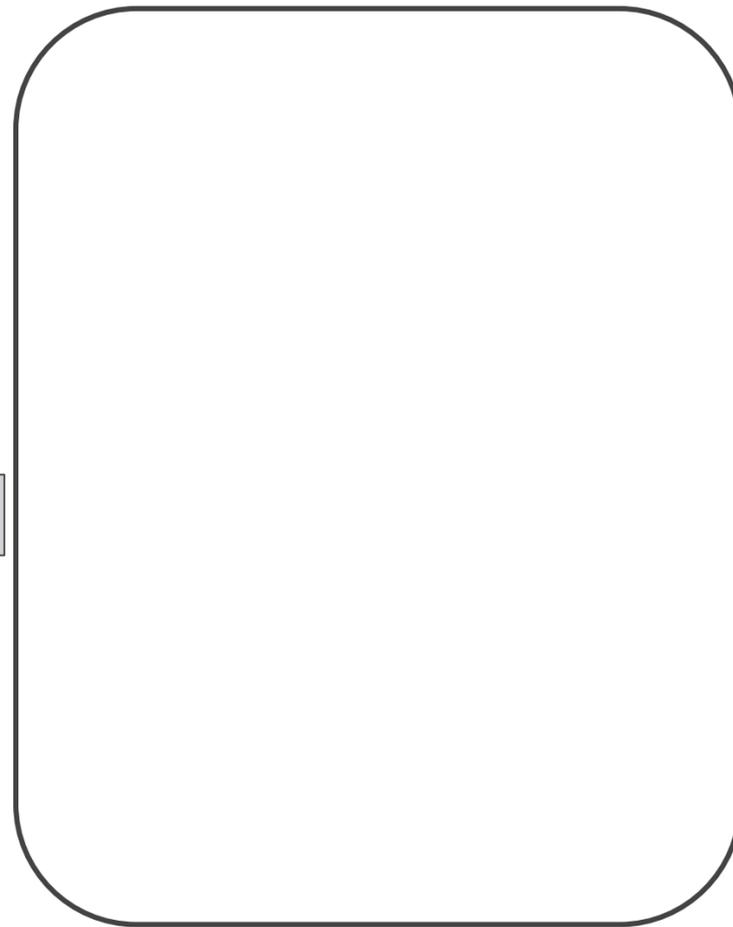
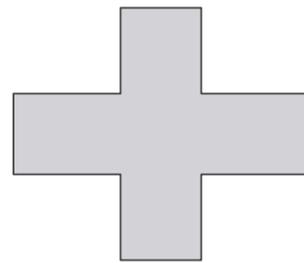
.....



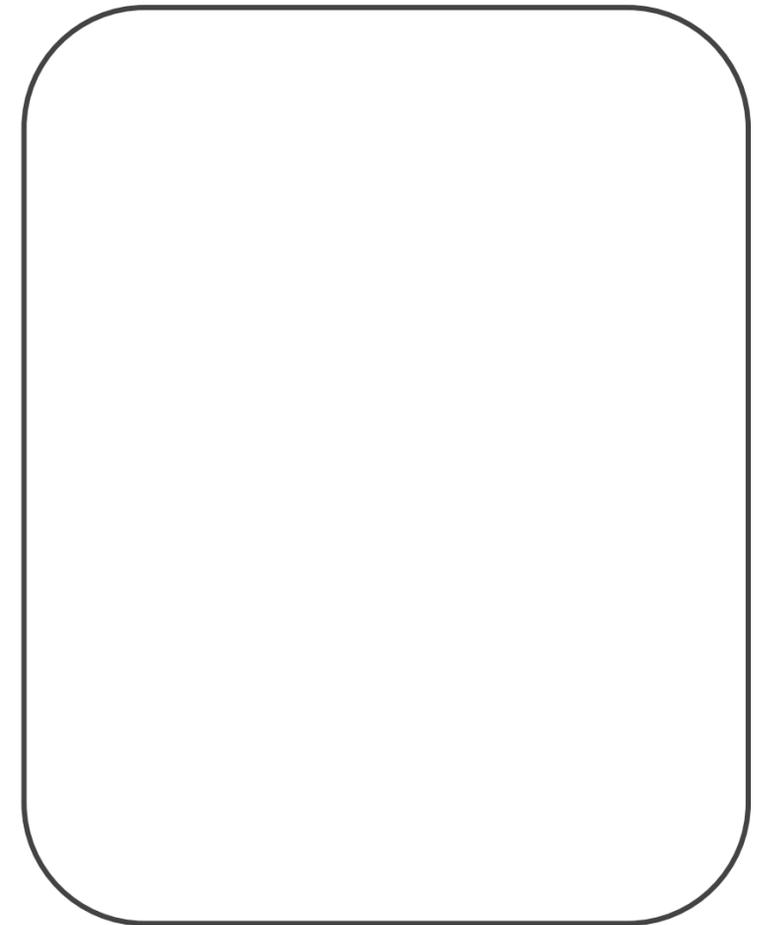
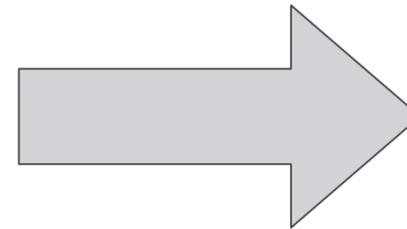
# Oxidation of copper - particle diagram



**Copper**



**Oxygen**



**Copper oxide**



# Word equations



# Word equations

## Task

Construct word equations from these descriptions.

1. The reaction between magnesium and oxygen to produce magnesium oxide.
2. The reaction between sulfur and oxygen to produce sulfur dioxide.
3. Zinc and oxygen react to form zinc oxide.



# Magnesium and air



# Answer the following questions regarding the video about heating magnesium in air found in the lesson

## Questions to answer:

1. What substance is being heated?

.....

2. What is it reacting with?

.....

3. What safety precautions are mentioned?

.....

.....



# Heating magnesium in air

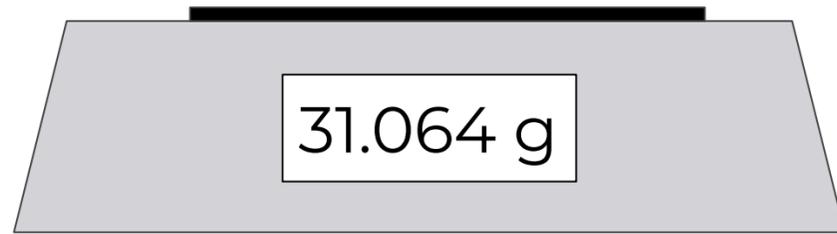
Can you write a word equation to summarise the reaction between magnesium and air?

..... + ..... → .....  
.....



# Conservation of mass

**A**



**Mass of crucible and lid (only)**

**Mass of magnesium =**

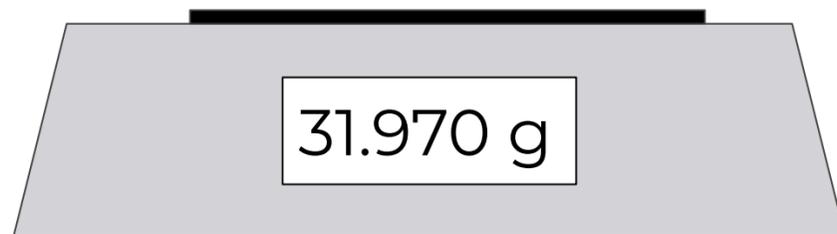
**B**



**Mass of crucible, lid and magnesium**

**Mass of oxygen =**

**C**



**Mass of crucible, lid and magnesium oxide**

**=**

**Mass of magnesium oxide**



## Explain the apparent change in mass during the heating magnesium experiment

Your answer should include reference to the conservation of mass principles.

Word bank: reactants, products, mass, conserved, magnesium, oxygen, magnesium oxide.

.....

.....

.....

.....

.....

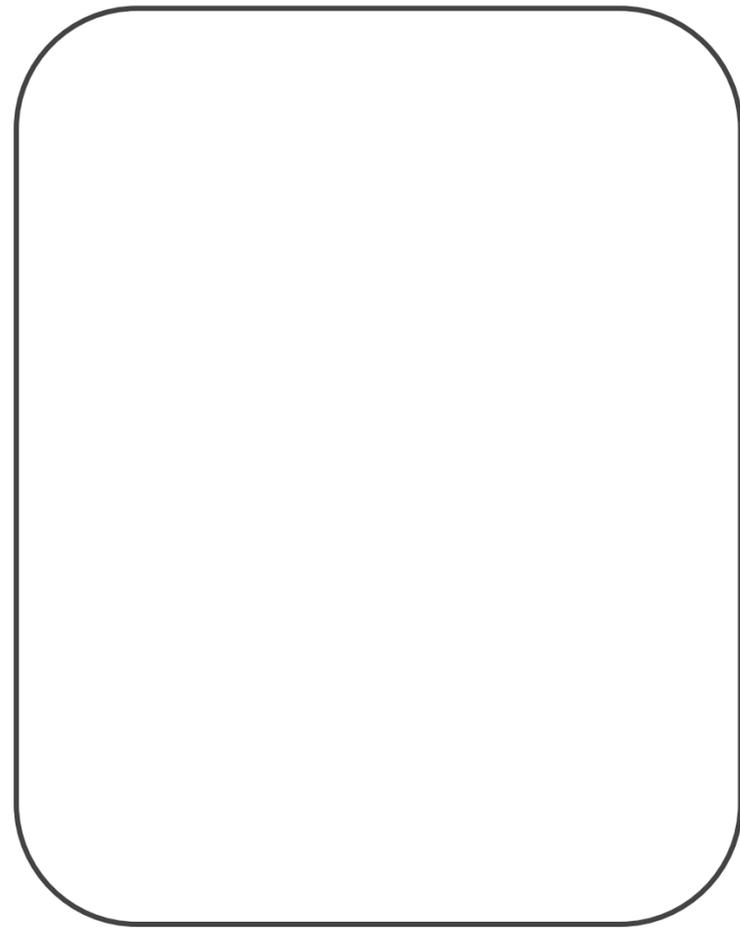
.....



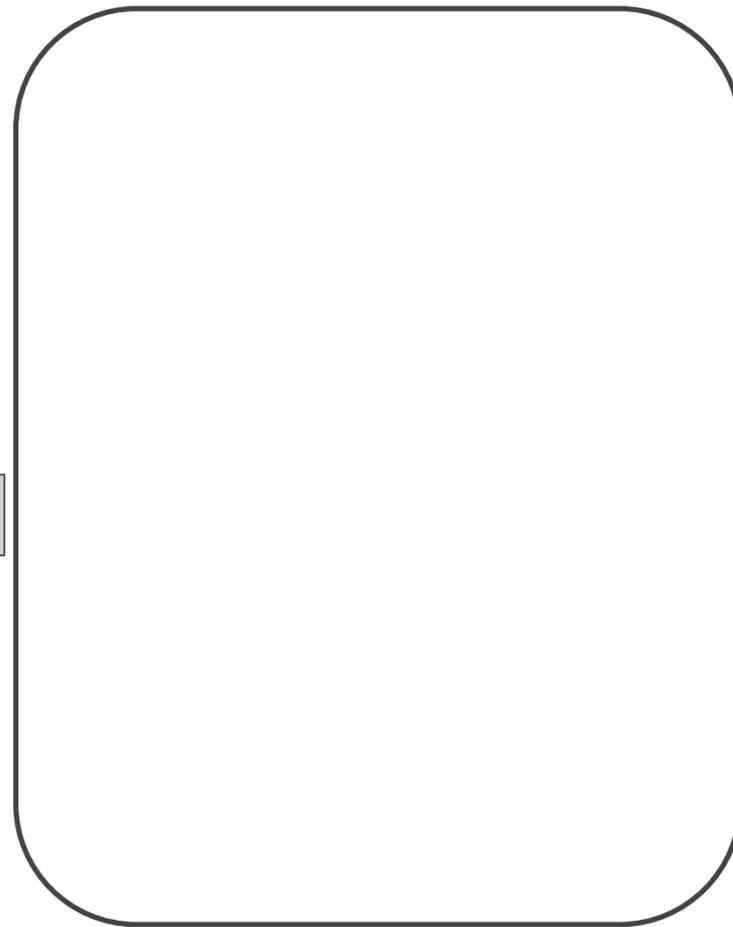
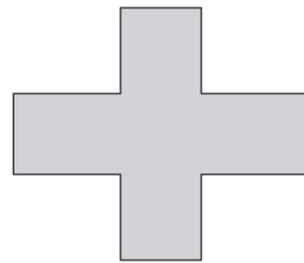
# Combustion



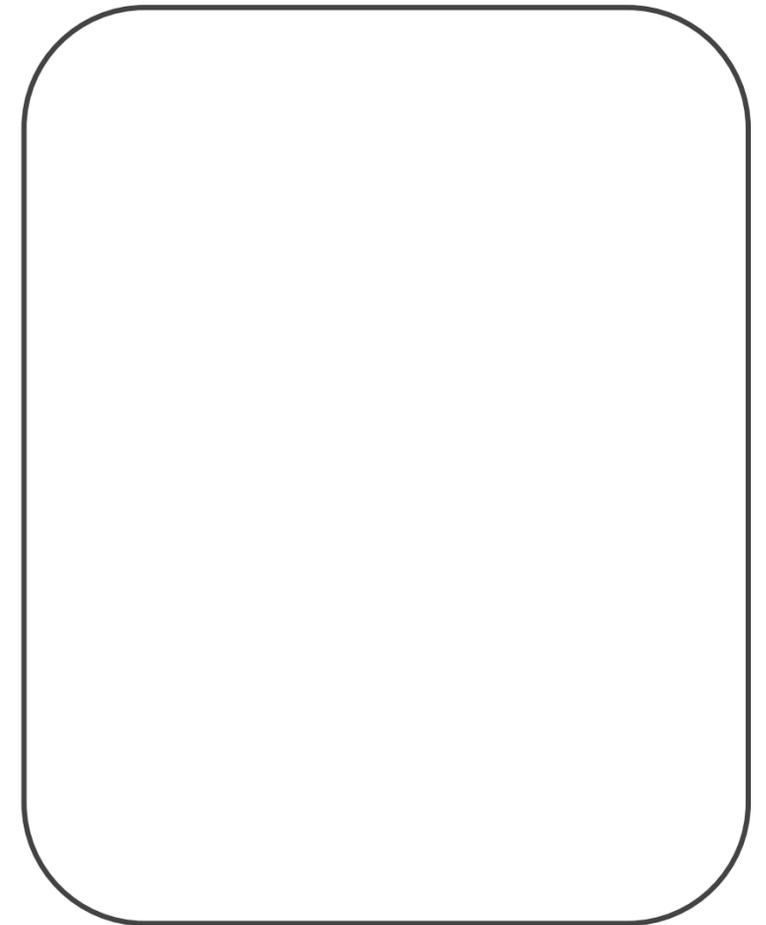
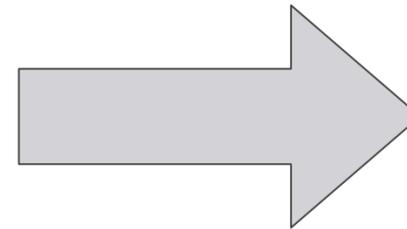
# Products of combustion - particle diagrams



**Carbon**



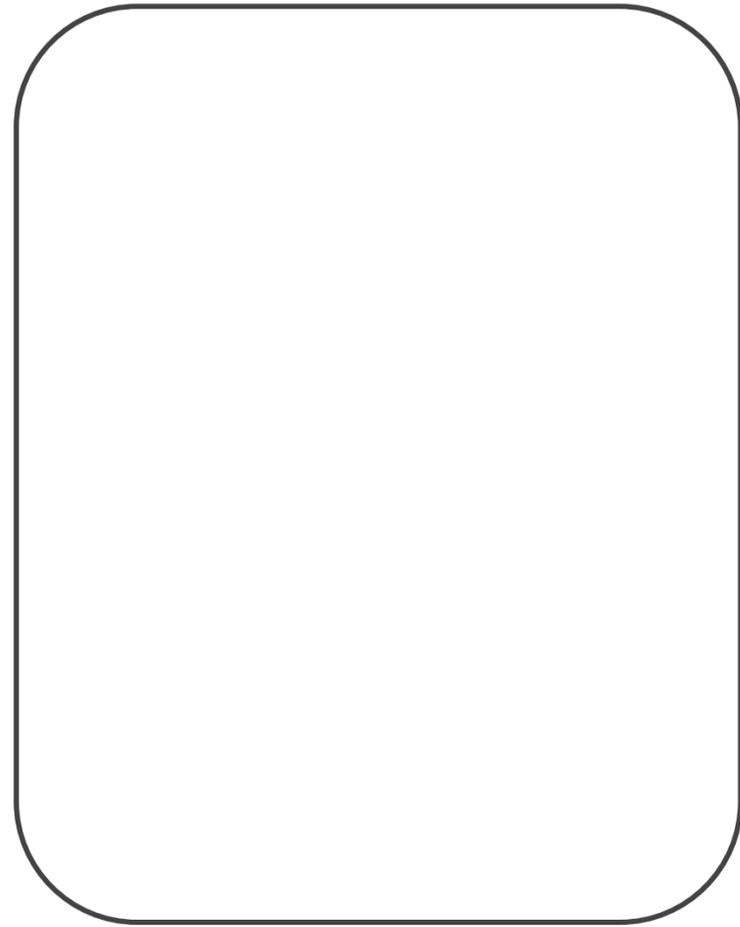
**Oxygen**



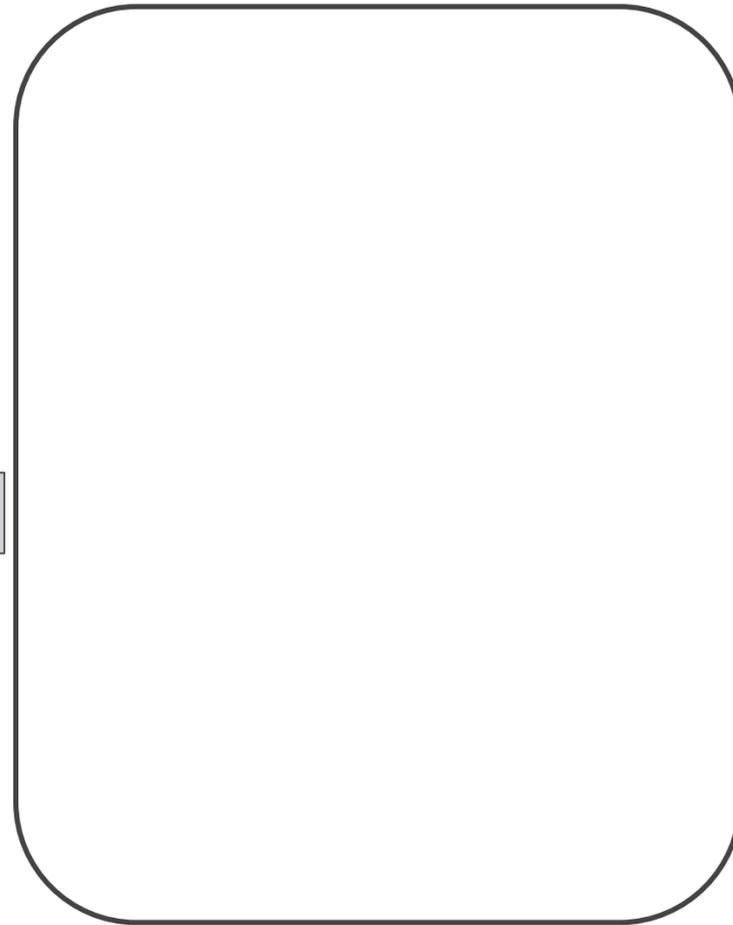
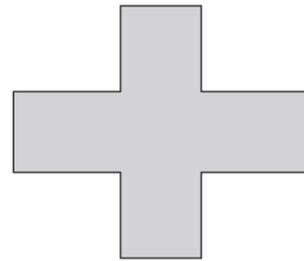
**Carbon dioxide**



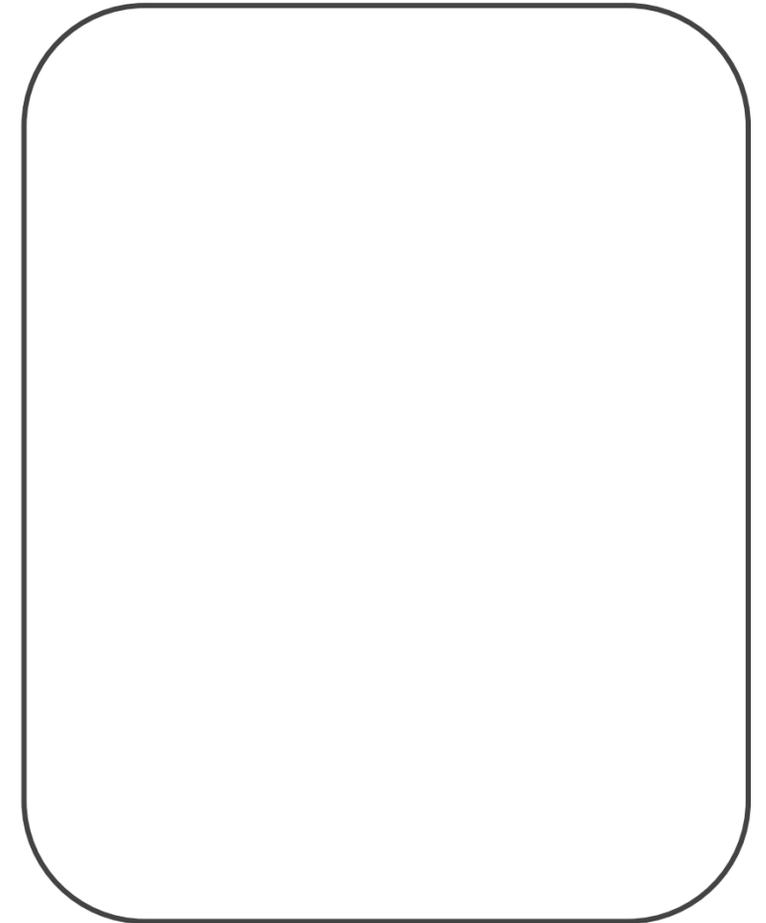
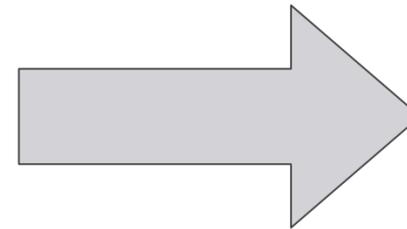
# Products of combustion - particle diagrams



**Hydrogen**



**Oxygen**



**Water**

