

8E Combustion- Revision Worksheet

Define the following keywords:

Combustion	
Fuel	
Fossil Fuel	
Hydrocarbon	
Reactant	
Product	

Describe how **hydrogen** can be used to power **vehicles**:

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Write out a **word equation** for the **reaction** in a **fuel cell**:

Describe the **energy transfers** that occur during **combustion**.

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State the **products** of **hydrocarbon combustion** and explain how they are formed.

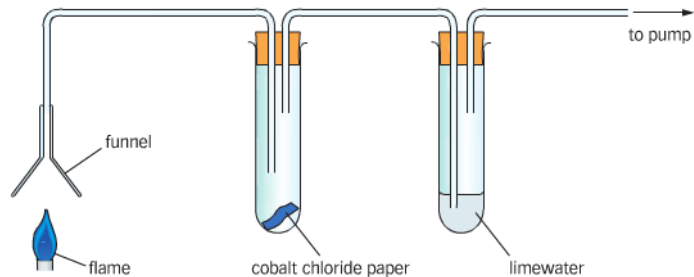
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Explain how the equipment here allows you to test for the **products** of **combustion**.



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Complete the following **word equations**:

Magnesium + Oxygen →

Iron + Oxygen →

Copper + Oxygen →

Zinc + Oxygen →

Explain why the **reactions** above are examples of **oxidation**.

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Describe what is meant by the '**law of conservation of mass**'

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.....

5g of **magnesium** is burnt in **air**, producing 10g of **magnesium oxide**. Calculate how much **oxygen** was reacted with.

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Describe the **reaction** of **magnesium** with **oxygen**.

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Explain why the **mass** of **zinc oxide** is greater than the mass of the zinc **reacted**.

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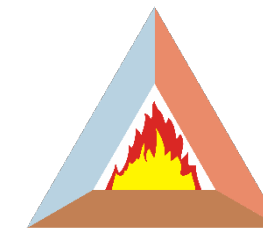
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Describe why **combustion** is an **exothermic reaction**.

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Label the **fire triangle**:



State what each of the **hazard symbols** means:



Complete the following table about the different **fire extinguishers**:

Type	Colour	Explanation of what it puts out
Water		
CO2		
Foam		
Powder		

Describe what **incomplete combustion** is.

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State the possible **products** of **incomplete combustion**:

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-
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Describe the effect of **impurities** in **hydrocarbon fuels**.

.....
.....

Complete the table by describing the effect of each of these **pollutants**.

Carbon Monoxide	
Carbon Dioxide	
Sulfur Dioxide/ Nitrogen Oxides	
Soot	

Describe the **causes** of **acid rain**.

.....

Describe the **effects** of **acid rain**.

.....

Describe the **controls** of **acid rain**.

.....

Draw and label a diagram below to show what the **greenhouse effect** is:

Describe the **trend** of **global temperatures** over the years.

.....

Explain the **trend** of **CO₂ emissions** over the years.

.....
.....

Describe changes that may be caused by **global warming**.

.....
.....

Rate the following on how well you think you can do them:



I can...

- Describe the reactions of hydrogen and hydrocarbons with oxygen.
- Use word equations to model combustion reactions.
- Describe oxidation reactions of metals and non-metals.
- Explain changes in mass seen in oxidation reactions.
- Compare how phlogiston and oxygen explain combustion.
- Use the fire triangle to explain how to control a fire.
- Identify hazard symbols for substances likely to cause fires.
- Identify control variables in an experiment and describe how to control them.
- Explain why it is important to carry out a fair test.
- Describe pollutants that are formed by burning fuels.
- Explain how these pollutants cause problems and how their effects can be reduced.
- Describe the greenhouse effect and how it is caused.
- Explain how human activity may be causing global warming.
- Identify information text and explanation text.
- Use the structure of a text to help with answering questions.