

### 8Ea

- 1 Combustion of hydrogen produces:  
**A** carbon hydride. **B** hydrocarbon.  
**C** carbon. **D** water.
- 2 Carbon dioxide can be detected using:  
**A** a glowing splint.  
**B** pure water.  
**C** orangewater.  
**D** limewater.
- 3 When hydrated copper sulfate is heated, the gas produced is called:  
**A** the water of crystallisation.  
**B** oxygen.  
**C** carbon dioxide.  
**D** hydrogen.
- 4 methane + oxygen →  
**A** hydrogen + oxygen  
**B** carbon dioxide + water  
**C** carbon dioxide + hydrogen  
**D** carbon + water

### 8Eb

- 1 During a chemical reaction, reactants form products. Compare the mass of reactants with the mass of products formed.  
**A** The mass of reactants is greater than the mass of products.  
**B** The mass of products is greater than the mass of reactants.  
**C** The mass of products is the same as the mass of reactants.  
**D** The change in mass depends on what the reactants and products are.

2 Oxidation is always:

- A a reaction in which a substance combines with oxygen.
- B a reaction in which a substance burns in oxygen.
- C a reaction in which a substance burns in air.
- D an explosive reaction.

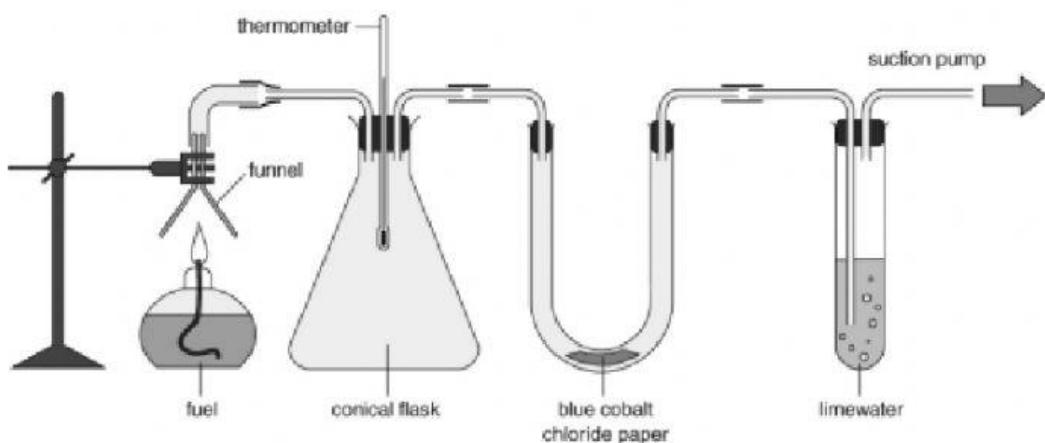
3 When zinc burns in oxygen it forms:

- A water.
- B zinc hydroxide.
- C zinc carbonate.
- D zinc oxide.

4 When 4.8 g of magnesium reacts with 3.2 g of oxygen, how much magnesium oxide is formed?

- A 1.6 g
- B 4.9 g
- C 7.0 g
- D 8.0 g

Below is a diagram showing tests used for hydrocarbon combustion.



a What does the cobalt chloride paper test for? \_\_\_\_\_

b What does the limewater test for? \_\_\_\_\_

c How will the thermometer reading change during the experiment?

d Explain why the thermometer reading changes in this way.  
\_\_\_\_\_

Complete the following word equations by dragging and dropping the correct molecules.

Oxygen	Hydrogen	Carbon dioxide	Iron
Copper	Water	Magnesium oxide	Carbon

