

# Year 7 Types of Reactions Knowledge Organiser

## 1. Word equations

| Keyword        | Meaning   |
|----------------|---|
| Word equations | Show the names of all the chemicals involved in a reaction. |
| Reactants      | The chemical(s) at the start of a chemical reaction         |
| Products       | The chemical(s) at the end of a chemical reaction           |

## 3. Types of reactions

|                       |  |
|-----------------------|--|
| Thermal decomposition | Breaking down a compound by heating it               |
| Oxidation             | A reaction where oxygen is added to a substance      |
| Complete combustion   | Burning a substance in plenty of oxygen              |
| Incomplete combustion | Burning where there is a limited supply of oxygen    |
| Hydrocarbon           | A compound that only contains carbon and hydrogen    |
| Fuel                  | A material that is burned to release energy e.g coal |
| Exothermic            | A reaction that transfers energy to the surroundings |

## 2. Conservation of mass

| Keyword              | Meaning   |
|----------------------|---|
| Conservation of mass | Total mass of products = Total mass of reactants. |

| <u>Reactants</u>                     |   | <u>Products</u>            |
|--------------------------------------|---|----------------------------|
| sodium hydroxide + hydrochloric acid | → | sodium chloride + water    |
| sodium hydroxide + sulfuric acid     | → | sodium sulfate + water     |
| sodium hydroxide + nitric acid       | → | sodium nitrate + water     |
| magnesium oxide + hydrochloric acid  | → | magnesium chloride + water |
| magnesium oxide + sulfuric acid      | → | magnesium sulfate + water  |
| magnesium oxide + nitric acid        | → | magnesium nitrate + water  |

## The Fire Triangle

