**KS3 reactions**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Definitions** | | |  | | | |
| 1 | Exothermic | A chemical reaction that gives out energy | 16 | Thermal decomposition | Breaking down a compound using heat | |
| 2 | Endothermic | A chemical reaction that absorbs energy | 17 | Reactants | The things that go into a reaction. There can sometimes be just one reactant or several. | |
| 3 | Hydrocarbon | A compound containing hydrogen and carbon atoms only | 18 | Products | The new substances that are made. This can be one product or many. | |
| 4 | Combustion | The scientific name for burning. | **Equations for complete and incomplete combustion** | | | |
| 5 | Complete combustion | Burning a full when there is enough oxygen present. | 19 | Complete combustion | **Fuel + oxygen carbon dioxide + water** | |
| 6 | Incomplete combustion | Burning a full when there is not enough oxygen present. | 20 | Complete combustion |  | |
| 7 | Oxidation | When an element combines with oxygen. E.g Magnesium is oxidised to form magnesium oxide. | 21 | Incomplete combustion | **Fuel + limited or no oxygen carbon monoxide**  **+ water** | |
| 8 | Reduction | When oxygen is removed form a compound e.g Magnesium oxide is reduced to form magnesium + oxygen | 22 | Incomplete combustion | **Fuel + limited or no oxygen carbon + water** | |
| 9 | Carbon monoxide | A **toxic** gas produced from incomplete combustion. Can be lethal. |  | | | See the source image |
| 10 | Word equation | Contains the names of the reactants and products in a chemical reaction |
| 11 | Fuel | A substance that burns to release energy. |
| 12 | Conservation of mass | When a chemical reaction takes place no atoms or gained or lost. Atoms are simply rearranged |
| 13 | Physical reaction | A physical change is a type of change in which the form of matter is altered but one substance is not transformed into another |
| 14 | Chemical reaction | **a chemical change** that occurs when two or more substances combine to form a new substance. |
| 15 | Precipitate | an insoluble solid that emerges from a liquid solution | **Fig 1: Fire triangle** | | |  |