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| Know the facts  | **Key words** |
| 1 | Physical changes are reversible | 1 | **Fuel:** Stores energy in a chemical store which it can release as heat. |
| 2. | Chemical changes are NOT reversible | 2 | **Chemical reaction:** A change in which a new substance is formed. |
| 3 | In a reaction atoms are rearranged to make a new substance | 3 | **Physical change:** One that changes the physical properties of a substance, but no new substance is formed. |
| 4. | Chemical reactions can make useful products and transfer energy. | 4 | **Reactants:** Substances that react together, shown before the arrow in an equation.  |
| 5. | In oxidation reactions ,substances join together with oxygen to form oxides | 5 | **Products:** Substances formed in a chemical reaction, shown after the reaction arrow in an equation. |
| 6. | Exothermic change transfers energy **to** the surroundings | 6 | **Conserved:** When the quantity of something does not change after a process takes place. |
| 7 | Endothermic change transfers energy **from** the surroundings | 7 | **FeO :** this is the formula for iron oxide |
| 8 | Combustion is the burning of a substance in oxygen. |  | **Fossil fuels :** these are petrol diesel gas and coal  |
| 9 | Combustion gives off heat and light. | 8 | **Non-renewable –** a substance which cannot be replaced once it is used up  |
| 10 | When hydrocarbons undergo combustion the products produced will include carbon dioxide and water vapour. | 9 | **Balanced symbol equation :**shows the formula of the reactants, how they are arranged and the relative amounts of reactants and products |
| 11 | Thermal decomposition involves breaking down large molecules with heat to give simpler products. | 10 |  |
| 12 | In a chemical reaction mass is conserved. The mass of the reactants equals the mass of the products. |  |  |
| 13 | Atoms in a chemical reaction only get re-ordered - they are not created or destroyed. |  |  |

**Types of Reaction Year 7**