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| **Know the facts** | | **Key words** | |
| 1 | Potassium sodium and lithium react with dilute acid violently and produce salts and hydrogen | 1 | **Metals** : They are solids and have similar properties – they are shiny and conduct heat and electricity . |
| 2. | Calcium Magnesium Zinc Iron and lead react with dilute acid gently producing Hydrogen gas and salts. | 2 | **State symbols :** these are written next to the formula of a compound to show you which state they are (S) means solid and (g) gas (aq) solution |
| 3 | Copper silver and gold do not react with dilute acids. | 3 | **Reactivity series :** A list of metals in the order of how vigorously they react |
| 4. | Potassium sodium and lithium react with water to produce hydroxide solution and hydrogen | 4 | **Displace**: when a metal swops places with another metal because it is higher in the reactivity series |
| 5. | Calcium Magnesium zinc iron and lead react with steam r to produce a metal oxide and hydrogen | 5 | **Displacement reaction**: In this reaction, a more reactive metal displaces or pushes out a less reactive metal from its compound. |
| 6. | Potassium Sodium and Lithium calcium, Magnesium, Zinc and Iron burn vigorously and produce metal oxides. | 6 | **Ore** : a rock that you can extract a metal out from. |
| 7 | Lead and Copper Do not burn because of a layer of oxide that forms on their surface | 7 | **Oxidation:** Reaction in which a substance combines with oxygen. |
| 8 | Silver and gold do not burn | 8 | **Non-metals:** Dull, poor conductors of electricity and heat, brittle and usually solid or gaseous at room temperature |
| 9 | More reactive metals displace less reactive metals from compounds | 9 | **Natural Polymer**: Polymers made by plants and animals, including wool, cotton, and rubber. |
| 10 | Zinc, and metals below it in the reactivity series, are extracted by heating their oxides with carbon. | 10 | **Synthetic Polymer**: A substance made up of a very long molecule that does not occur naturally. |
| 11 | Ceramic materials include pottery and brick. They are hard and brittle with high melting points. | 11 | **Na** : Sodium |
| 12 | Polymers have a long molecule. There are hundreds of different polymers, each has unique properties that make it suitable for a particular process. | 12 | **K** : Potassium |
| 13 | A composite material is a mixture of materials. It has properties that are a combination of the properties of the material mixture | 13 | **Ca**: Calcium |
| 14 | Oxides can take place in displacement reactions an example is the Thermite reaction. The aluminium is reacted with iron oxide – the reaction is exothermic and then lead is displaced and melts. | 14 | **Mg** : Magnesium |

**Metals and Acids Year8**