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| **Know the facts** | | **Key words** | |
| 1 | The pH scale shows how acidic or alkaline a solution is. | 1 | **pH:** Scale of acidity and alkalinity from 0 to 14. |
| 2. | Acids have a pH below 7. The lower the pH the stronger the acid. | 2 | **Indicators:** Substances used to identify whether unknown solutions are acidic or alkaline. |
| 3 | Neutral solutions have a pH of 7 | 3 | **Base:** A substance that neutralises an acid - those that dissolve in water are called alkalis. |
| 4. | Alkalis have a pH above 7.The higher the pH the more alkaline the solution. | 4 | **Concentration:** A measure of the number of particles in a given volume. |
| 5. | Universal indicator changes colour to show the pH of a solution | 5 | **Neutralisation**: a reaction when an acid reacts with a substance that cancels it out bringing the solution closer to pH7. |
| 6. | Acids and alkalis can be corrosive or irritant and require safe handling. | 6 | **Universal indicator** : mixture of dyes , it changes colour to show how acidic or alkali a substance is. |
| 7 | Hydrochloric, sulfuric and nitric acid are strong acids. | 7 | **Corrosive :** a substance which can burn you skin and eyes- wear eye protection. |
| 8 | Litmus is an indicator. Blue litmus paper turns red when a acidic solution is applied. Red litmus turns blue on adding an alkaline solution | 8 | **Acid**: a substance which taste sour and has a pH between 1-6 |
| 9 | In a neutralisation reaction an acid cancels out a base or a base cancels out and acid. | 9 | **Alkali:** A substance which feels soapy and has a pH between 8-14 |
| 10 | A base is a substance which neutralises an acid | 10 | **HCl:** Hydrochloric acid |
| 11 | An alkali is a soluble base | 11 | **H2SO4**: Sulfuric acid |
| 12 | If an acid reacts with a metal the products are a salt and hydrogen | 12 | **HNO3**: Nitric acid |
| 13 | If an acid reacts with a base there are 2 products a salt and water | 13 | **acid + metal → salt + hydrogen**  **nitric acid + calcium → calcium nitrate + hydrogen** |
| 14 | Sulfuric acid makes sulfates | 14 | **acid + alkali → salt + water**  **hydrochloric acid + sodium hydroxide → sodium chloride + water** |
| 15 | Hydrochloric acid makes chlorides | 15 |  |
| 16 | Nitric acid makes nitrates | 16 |  |

**Acids and Alkali Year 7**