Acids and Alkalis Summary

Chemicals which have a pH value less than seven are called 1.acids. Those with a pH greater than seven are known as 2. alkalis and those with a pH equal to seven are called 3. Neutral solutions. To find out if a solution is acidic, neutral or alkaline, 4.__pH paper_____, litmus paper or 5. Universal indicator is used. When the pH paper or indicator is added to the solution, a 6 .colour change determines what kind of substance the solution is. The colours relating to the pH are:

pH	1	2	3	4	5	6	7	8	9	10	11	12	13	14
Colour	Red													

A 7 neutralisation reaction is one where an acid, or an alkali, is cancelled out. If the correct volume of acid is added to an alkali salt and 8 water are produced.

Real life examples of neutralisation reactions are: milk of magnesia to neutralise 9. stomach acid indigestion, treatment of garden soil to reduce acidity using lime, treatment of an acidic 10. bee sting with sodium bicarbonate and treatment of an alkaline 11. Wasp sting with vinegar.

Acid 12. rain is produced as a result of air pollution. Sulphur Dioxide and Nitrogen Oxide gas are present in car exhaust fumes and fumes from industry. When these gases mix with the water vapour in the 13. Air , acid rain clouds form. Acid rain can decrease the pH of soils, rivers and lakes. As a result 14.plants and species living in water environments can die.

Metals react with acid at different rates. 15. Magnesium reacts better than zinc, which reacts better than 16. iron, which reacts better than lead. The test for Hydrogen gas is that that it burns with a 17 pop. Any metal that reacts with acid produces Hydrogen gas and a 18. salt. Metals such as Copper, Silver and Gold do not react with acid at all.

When acids react with metal carbonates and metal oxides in a process called 19.neutralisation. A 20. Neutral solution and a 21. salt are formed during these reactions.

22. Enzymes are affected by the pH of a solution. The pH at which enzymes work best is called the 23.optimum pH for an enzyme. Enzymes only work for a particular 24. range of pH.

Word bank

universal, acids, colour, iron, bee, alkalis, pop, water, salt, optimum, stomach, wasp, neutral, rain, neutralisation, air, pH paper, plants, magnesium, neutralisation, salt, range, neutral, enzymes,