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Worksheet: Acids, Bases and Salts

1. Ammonia is found in many household products, such as window cleaners. It turns red litmus blue. What is its nature?
2. Explain why: (a) An antacid tablet is taken when you suffer from acidity (b) Calamine solution is applied on the skin when an ant bites. (c) Factory waste is neutralised before disposing it into the water bodies.
3. State differences between acids and bases.
4. If someone in the family is suffering from a problem of acidity after overeating, which of the following substances would you suggest as a remedy?
5. Which gas is usually liberated when an acid reacts with a metal ? Illustrate with an example. How will you test for the presence of this gas ?
6. Name and describe giving chemical equation the process used for producing sodium hydroxide. Why is this process so named?
7. Why should curd and sour substances not be kept in brass and copper vessels ?
8. What are anhydrous and hydrated salts? Explain with a suitable example of each.
9. Why do HCl, HNO3, etc show acidic characters in aqueous solutions while solutions of compounds like alcohol and glucose do not show acidic character ?
10. Write chemical names and formulae of plaster of Paris and Gypsum.
11. Blue litmus paper is dipped in a solution. It remains blue. What is the nature of the solution? Explain.
12. Describe the process of neutralisation with the help of an example.
13. Three liquids are given to you. One is hydrochloric acid, another is sodium hydroxide and third is a sugar solution. How will you identify them? You have only turmeric indicator.
14. Is the distilled water acidic/basic/neutral? How would you verify it?
15. A student dropped a few pieces of marble in dilute hydrochloric acid contained in a test tube. The evolved gas was passed through lime water. What change would be observed in lime water? Write balanced chemical equations for both the changes observed.
16. Write the chemical formula of hydrated copper sulphate and anhydrous copper sulphate. Giving an activity illustrate how these two are interconvertible.
17. Define an acid-base indicator. Mention one synthetic acid-base indicator.
18. Name the source from which litmus solution is obtained. What is the use of this solution?
19. Identify the acid and the base from which sodium chloride is obtained. Which type of salt is it? When is it called rock salt? How is rock salt formed?

20. You have been provided with three test tubes. One of them contains distilled water and the other two contain an acidic solution and a basic solution, respectively. If you are given only red litmus paper, how will you identify the contents of each test tube ?