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Worksheet: Acids, Bases and Salts

1. 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?
2. How is plaster of Paris prepared? What reaction takes place when it sets to a hard mass?
3. Dorji has a few bottles of soft drink in his restaurant. But, unfortunately, these are not labelled. He has to serve the drinks on the demand of customers. One customer wants acidic drink, another wants basic and third one wants neutral drink. How will Dorji decide which drink is to be served to whom?
4. 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.
5. 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.
6. 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 ?
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. 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?
10. Define an acid-base indicator. Mention one synthetic acid-base indicator.
11. 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.
12. Write chemical names and formulae of plaster of Paris and Gypsum.
13. Why does an aqueous solution of an acid conduct electricity ?
14. Write the chemical formula of hydrated copper sulphate and anhydrous copper sulphate. Giving an activity illustrate how these two are interconvertible.
15. Define water of crystallisation. Give the chemical formula for two compounds as examples. How can it be proved that the water of crystallisation makes a difference in the state and colour of the compounds?
16. State differences between acids and bases.

17. Why do HCl, HNO_3, etc show acidic characters in aqueous solutions while solutions of compounds like alcohol and glucose do not show acidic character ?
18. Name and describe giving chemical equation the process used for producing sodium hydroxide. Why is this process so named?
19. Name the source from which litmus solution is obtained. What is the use of this solution?
20. Blue litmus paper is dipped in a solution. It remains blue. What is the nature of the solution? Explain.