

Directed Reading A

Section: Acids and Bases

ACIDS AND THEIR PROPERTIES

- _____ 1. What is any compound that increases the number of hydronium (H_3O^+) ions dissolved in water called?
- base
 - acid
 - indicator
 - neutral
- _____ 2. What does each hydrogen ion bond with to form hydronium ions?
- an oxygen particle
 - a water molecule
 - an acid
 - tea
- _____ 3. What do hydrogen ions, H^+ , form when they bond to water molecules, H_2O ?
- hydrogen ions, H^+
 - hydronium ions, H_3O^+
 - water molecules, H_2O
 - bases
- _____ 4. What flavor do acids have?
- sweet
 - salty
 - sour
 - crunchy
- _____ 5. Why should a person NEVER taste or touch an unknown chemical?
- many are flavorless
 - many are too sweet
 - many are corrosive
 - many are too salty
- _____ 6. What can corrosive substances destroy?
- sour things
 - poisons
 - lemons
 - body tissues and clothing

Directed Reading A *continued*

- _____ 7. A compound that can reversibly change color depending on conditions such as pH is called a(n)
a. indicator.
b. color meter.
c. color changer.
d. water molecule.
- _____ 8. Two commonly used indicators are bromthymol blue and
a. hydrochloric acid.
b. silver nitrate.
c. litmus paper.
d. color changer.
- _____ 9. What color does blue litmus paper turn when acid is added to it?
a. green
b. red
c. blue
d. orange
- _____ 10. What is produced when acids react with some metals?
a. oxygen gas
b. metals
c. silver crystals
d. hydrogen gas
- _____ 11. Since acids form hydronium ions in water, solutions of acids can
a. make oxygen.
b. break apart water molecules.
c. conduct electric current.
d. straighten hair.

Match the correct acid with the product in which it is used. Write the letter in the space provided.

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|--------------------------|----------------------|
| _____ 12. rubber | a. sulfuric acid |
| _____ 13. car batteries | b. nitric acid |
| _____ 14. orange juice | c. hydrochloric acid |
| _____ 15. swimming pools | d. citric acid |
| _____ 16. soft drinks | e. carbonic acid |

Directed Reading A *continued***BASES AND THEIR PROPERTIES**

- _____ 17. Any compound that increases the number of hydroxide ions when dissolved in water is a(n)
a. gas.
b. sodium.
c. acid.
d. base.
- _____ 18. The properties of bases include a bitter taste and a(n)
a. strong bond.
b. slippery feel.
c. hydroxide lattice.
d. unpleasant odor.
- _____ 19. What should you NEVER do to identify a chemical?
a. add salt to it
b. use an indicator
c. taste or touch it
d. look in a book
- _____ 20. What color does a base change red litmus paper to?
a. blue
b. purple
c. green
d. orange
- _____ 21. Because bases increase the number of hydroxide ions, OH^- , solutions of bases can
a. indicate temperature.
b. split atoms.
c. conduct electric current.
d. stop electric current.

Match the correct base with the product in which it is used. Write the letter in the space provided.

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| _____ 22. soap | a. magnesium hydroxide |
| _____ 23. antacids | b. sodium hydroxide |
| _____ 24. cement | c. calcium hydroxide |