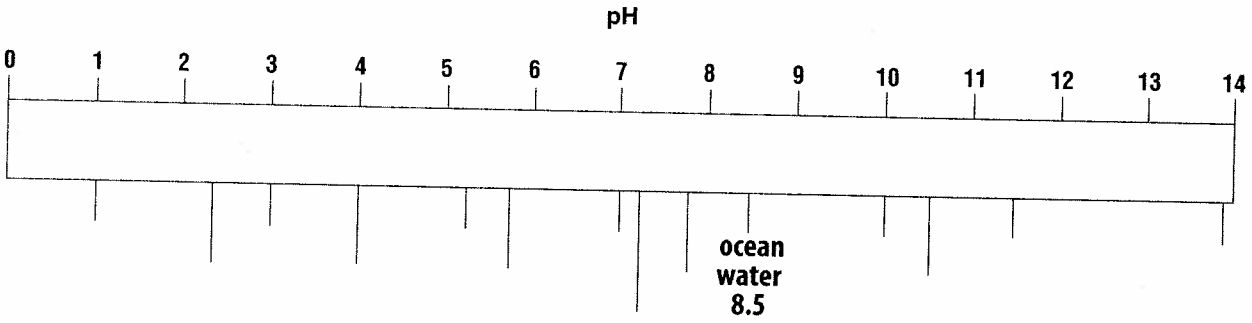
Name _____ Date _____ Class _____

SECTION 4 Reinforcement

Strength of Acids and Bases

Directions: *The pH values of several common substances are listed below. Place each item from the list on the pH scale in its proper location. The first one has been done for you.*



ocean water 8.5
tomatoes 4.0
lye 13.8
stomach acid 1.0
lemons 2.5
shampoo 5.8
bananas 5.2
blood 7.2
milk of magnesia 10.5
ammonia 11.5
eggs 7.8
soap 10.0
vinegar 3.0

Directions: *Complete the table below by writing the name of each of the above substances under the proper heading. Place substances with a pH lower than 3.0 in the strong acids column. Place substances with a pH higher than 10.0 in the strong bases column.*

1. Strong Acids	2. Weak Acids	3. Weak Bases	4. Strong Bases

Directions: *Answer the following questions on the lines provided.*

5. Is pure water an acidic, basic, or neutral substance? _____

6. Is the pH of a strong acid higher or lower than the pH of a weak acid of the same concentration?

_____

7. Is the pH of a strong base higher or lower than the pH of a weak base of the same concentration?

_____

8. On the pH scale, what are the values of acids and what are the values of bases?

_____

Name _____ Date _____ Class _____

SECTION 3 Reinforcement

Acids, Bases, and Salts

Directions: *Decide whether each item listed below refers to an acid, a base, or both an acid and a base. Write your answer in the space provided using the letters in the key.*

KEY: **A** = acid **B** = base **AB** = acid and base

_____ **1.** sour taste

_____ **2.** bitter taste

_____ **3.** produces hydrogen ions in solution

_____ **4.** is often corrosive

_____ **5.** is slippery

_____ **6.** can cause severe burns and tissue damage

_____ **7.** exists as a crystalline solid in an undissolved state

_____ **8.** produces hydroxide ions in solution

_____ **9.** reacts with a predictable indicator to produce a color change

_____ **10.** Soaps are an example.

_____ **11.** may be used to make fertilizer

_____ **12.** gastric juice in stomach

_____ **13.** produces hydronium ions

_____ **14.** Most compounds that produce this in aqueous solution are ionic.

_____ **15.** a solution that contains more H_3O^+ ions than OH^- ions.

_____ **16.** HCl is an example.

_____ **17.** Ammonia is a common example.

Directions: *Answer the questions on the lines provided.*

18. Use the information above to identify four properties that acids and bases have in common.

_____

19. Identify three facts about acids that are **NOT** true of bases.

_____

_____

20. Identify three facts about bases that are **NOT** true of acids.

_____

_____

Meeting Individual Needs