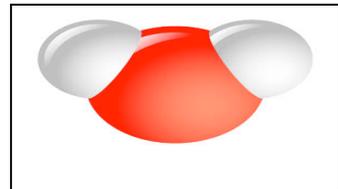


Name: \_\_\_\_\_

Period: \_\_\_\_\_

**Use your notes to help you answer the following questions**

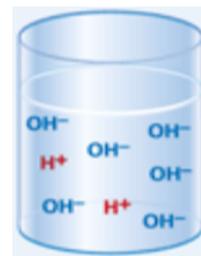
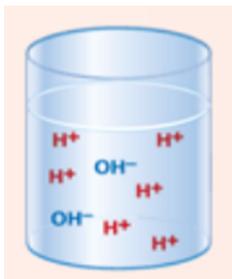
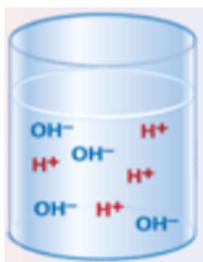
**Acids** and **bases** are very useful in our daily lives. Let's start with acids. Without acids, we won't have Vitamin C (ascorbic acid), your car won't start (sulphuric acid in car batteries) or even accelerated rotting of your food (food preservative in the form of citric acid). Similarly, imagine a world without bases. Without bases, stubborn stains on your clothing won't come off (sodium hypochlorite in bleach), you'll have dirty mirrors (ammonium hydroxide used in glass cleaners) and even having bowel problems as laxatives can be made from magnesium hydroxide.



- Use the following terms to label the water molecule at the right: H, O, -, +
- What has more hydrogen ions, acids or bases? \_\_\_\_\_
- A student mixes strawberry koolaid and water. A pH meter is used to measure pH of 5.4. What kind of solution is strawberry Koolaid? \_\_\_\_\_
- In the koolaid mixture, what must there be more of, hydrogen ions or hydroxide ions? \_\_\_\_\_
- A student adds an alka-seltzer to the koolaid and stirs. The pH meter now reads 8.3. What was released by the alka-seltzer tablet to cause this change? \_\_\_\_\_
- Bromthymol blue is a chemical indicator that is **blue** in basic and neutral solutions, and turns **greenish** and then **yellow** as the solution becomes more and more acidic. Fill in what color you think bromthymol blue would be in each of the situations in the chart.

Water directly out of tap	pH =7.2	
pH after exhaled air is blown through a straw into water for 5 min.	pH=5.1	
pH after a snail has lived in water for three days	pH=5.8	
pH with 2mL of bleach added to the water	pH=9.4	
pH with instant coffee added to the water	pH=5.0	
pH after an aquatic plant is grown in water for three days in bright sunlight	pH=7.7	

- Label each beaker as acid base or neutral.



Name: \_\_\_\_\_

Period: \_\_\_\_\_

**Unscramble the words below:**

1. aeoreumplcllo\_(2 words) \_\_\_\_\_

2. aidcic\_\_\_\_\_

3. raenult\_\_\_\_\_

4. oendhrgy\_\_\_\_\_

5. cbisa\_\_\_\_\_

6. eratw\_\_\_\_\_

7. cocirhycdiohadrl\_\_(2 words)\_\_\_\_\_

8. efrufb\_\_\_\_\_

9. toessahmois\_\_\_\_\_

10. yhoxedrid\_\_\_\_\_

11. vnelst\_\_\_\_\_

12. idusoxodhydrem\_\_(2 words)\_\_\_\_\_