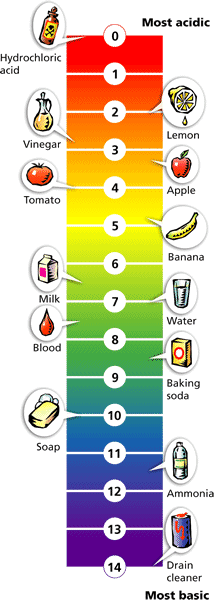
**FPS – Solutions Notes and Practice**

Name\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Period\_\_\_\_\_\_\_\_\_\_

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| ***Bellwork*** | |
|  | 1. What do you remember about the difference between homogeneous mixtures and heterogeneous mixtures? |
| ***Acids and Bases*** | |
| ***The Chemistry of Acids and Bases*** – Label the following an “acid” or a “base”    http://www.mamabeesfreebies.com/wp-content/uploads/2016/03/windex.jpg   1. **What is an acid?**    1. An \_\_\_\_\_\_\_\_\_\_\_\_\_ is a solution that has an excess of \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_. It comes from the Latin word *acidus* that means “sharp” or “sour”.    2. The more H+ ions, the more ­\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ the solution. 2. **Properties of an Acid** a. Tastes \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_   b. Conduct \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ c. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ d. Some acids react strongly with \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ to  produce H2 (hydrogen gas) e. Turns blue litmus paper \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  f. Neutralize with a \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  g. Strong acids fully \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ in water. Weak acids have fewer hydrogen ions in solution.   1. http://www.mhhe.com/physsci/chemistry/chang7/esp/folder_structure/cr/m3/s3/assets/images/crm3s3_1.jpg**Uses of acids**    1. Acetic acid = \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_    2. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ acid (lemons, limes, oranges)    3. Ascorbic Acid = \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ which your body needs.    4. Sulfuric acid is used in production of fertilizer, steel, paint, and plastics. 2. ***What is a base?***    1. A \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ is a solution that has excess \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_    2. Another word for base is \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_. 3. ***Properties of a base***    1. Feel \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_    2. Taste \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_    3. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_    4. Can conduct \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_    5. \_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ with metals.    6. Turn red litmus paper \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_. 4. ***Uses of bases***    1. Bases give \_\_\_\_\_\_\_\_\_\_\_\_\_\_, ammonia, and many other \_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ some of their useful properties.    2. The OH-­ions interact strongly with certain substances such as dirt and grease.    3. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ and over cleaner are examples of bases.    4. Your blood can be slightly \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ solution. 5. ***pH Scale***    1. pH means “potential \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_” – measure H+    2. pH is a measure of how \_\_\_\_\_\_\_\_\_\_\_\_\_ or basic a solution is.    3. The pH scale ranges from \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.    4. Acidic solutions have pH values \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.    5. A solution with a pH of 0 is very acidic.    6. A solution with a pH of 7 is \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.    7. \_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ has a pH of 7.   Basic solutions have pH values of \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_. | |



Acid‐base practice

Name\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_Date\_\_\_\_\_\_\_\_\_\_\_\_Period\_\_\_\_\_\_\_

Circle the letter of the term or phrase that best completes each statement or answers each question.

1. Pure water has a pH of \_\_\_\_\_\_\_\_\_\_\_\_\_.

2. A substance that produces OH‐ ions in a solution is \_\_\_\_\_\_\_\_\_\_\_.

3. Identify each item below as to whether it refers to an acid, a base, or both an acid and a base. Use the letter in the key.

Key: A = acid; B = base; AB = acid and base

(a) \_\_\_\_\_ Produces hydrogen ions (H+) in solution.

(b) \_\_\_\_\_ Soaps are an example.

(c) \_\_\_\_\_ Can be detected with an indicator.

(d) \_\_\_\_\_ Lemon is an example.

(e) \_\_\_\_\_ Conducts electricity.

(f) \_\_\_\_\_ Is often corrosive.

(g) \_\_\_\_\_ reacts with metals.

4. Look at the list below of substances. Draw a pH scale in the space provided and arrange them to the best of your ability on it (you do ***not*** need to give **exact** pH values).

Sea water

Orange juice

Stomach acid

Human blood

Household bleach

Pure water

Tomato juice

Ammonia