**Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_­­­­­­­­­­­­­­­­­­\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date \_\_\_\_\_\_\_\_\_ Block \_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**pH lab**

**Pre –lab (from notes)**

**The pH scale goes from \_\_\_\_\_\_\_\_ to \_\_\_\_\_\_\_\_. pH stands for the \_\_\_\_\_\_\_\_\_ of the \_\_\_\_\_\_\_ . This scale is logarithmic scale because each division on the scale is \_\_\_\_\_\_\_\_ times more or less acidic or basic. Water is “neutral” meaning neither\_\_\_\_\_\_\_\_\_\_\_ or \_\_\_\_\_\_\_\_\_\_\_\_. All substances can be classified as an acid or a base when it is put in an aqueous solution (in other words dissolved in water). When a substance “dissociates” in water, it breaks the bonds and separates it into H+ (Hydrogen ions) and OH- (Hydroxide) ions. Acids have the \_\_\_\_\_\_\_\_ numbers of \_\_\_\_\_\_\_ to \_\_\_\_\_\_\_\_\_\_. Two examples of acids are \_\_\_\_\_\_\_ and \_\_\_\_\_\_\_\_\_\_\_. Acids usually have a bitter flavor. Bases have the \_\_\_\_\_\_\_\_\_\_ numbers of \_\_\_\_\_\_\_ to \_\_\_\_\_\_\_\_. Two examples of bases are \_\_\_\_\_\_\_ and \_\_\_\_\_\_\_. Bases feel slippery. If a substance has a pH that is closer to neutral (7) than we define it as \_\_\_\_\_\_\_\_\_\_. If a substance has a pH that is closer to 0 or 14, it is considered to be \_\_\_\_\_\_\_\_\_\_\_\_\_.**

**Directions:**At each station with your lab group, put a FEW drops of the unknown solution in the “Chemplate”. Using the tweezers, dip the pH paper into the liquid. Wait a few seconds. Compare the color of the litmus paper to the pH scale on the overhead and estimate the pH of the solution. Fill in the chart below with your data from each station.

**Lab safety and disposal**: Do NOT touch the liquids. You may “waft” them to try to guess the type of solution. Throw the litmus paper in the trash can before moving to the next station.

Station # / Solution Approximate pH Acid or Base? Weak or Strong?

|  |  |  |  |
| --- | --- | --- | --- |
| 1 |  |  |  |
| 2 |  |  |  |
| 3 |  |  |  |
| 4 |  |  |  |
| 5 |  |  |  |
| 6 |  |  |  |
| 7 |  |  |  |
| 8 |  |  |  |

**Conclusion:** On the back of this paper, write a five sentence summary paragraph about acids, bases and the pH scale. Then, draw, color, label and title the pH scale below including the everyday items used in the lab that correspond to each pH level.