Date:

Name _____

Class: _____

Assignment:

pH Scale

You're probably familiar with the sour taste of acidic lemon juice and the slippery feel of alkaline (basic) soap. In fact, these characteristics were used to identify acids from bases long ago. Today, we understand much more about acidity and alkalinity, far beyond taste and feel.

Acids are most simply defined as **proton donors**. They have a ph of below 7. They are substances that react with water to **produce H_3O^+ (hydronium) ions** (after all, H_2O + one proton → H_3O^+). When you add an acid to water the water acts as a base, accepting protons from the acid.

Bases are most simply defined as **proton acceptors**. They have a ph of above 7. They react with water to **produce OH^- (hydroxide) ions** (H_2O - one proton → OH^-). When you add a base to water the water acts as an acid, donating protons to the base.

Procedure

A. Click on PH Scale Lab Link
B. Then choose the *Macro* tab.
C. Pick a solution from the dropper menu.
D. Add as much as you would like to the tank.
E. Record the Ph of the solution.
F. Add .05 L of Water to the solution
G. Record the PH of the solution
H. Drain Solution from tank
I. Repeat with another dropper

Results

Solution	Initial PH	Final PH after H_2O	How much did it increase or decrease
Drain Cleaner			
Hand Soap			

Blood			
Spit			
Milk			
Chicken Soup			
Coffee			
Orange Juice			
Soda Pop			
Vomit			
Battery Acid			

Analysis / Conclusion

1) How did the PH change after you add the .05L of water?

2) What is the pH of the new diluted solution?

3) Explain why diluting the Solution increased or decreased the PH.