Reading: Acids and Bases in Biology

- What are acids and bases classified?
- Why are acids and bases important in living things?

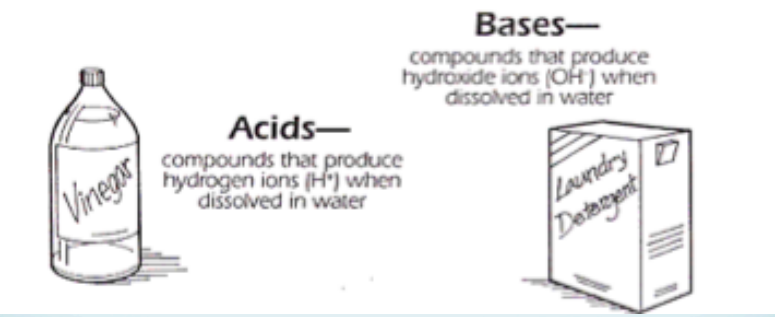
V.O.D

- https://www.youtube.com/watch?v=A_URRb5mk5Q

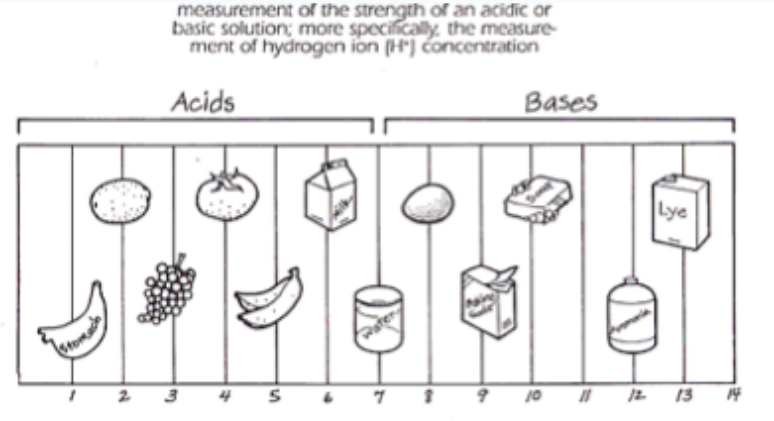
Learning Intentions

- I can describes the properties of acids, bases, and buffers
- I can apply my understanding of acid/base balance to examples in the human body
- I understand that pH regulation is essential to maintain homeostasis

Key Concepts Acids and Bases



Key Concepts Acids and Bases



pH is a logarithmic scale. This means that each unit is 10 times the concentration of H+ of the previous unit.

Key Concepts Acids and Bases

Acids: release H+ and decrease the pH of a solution

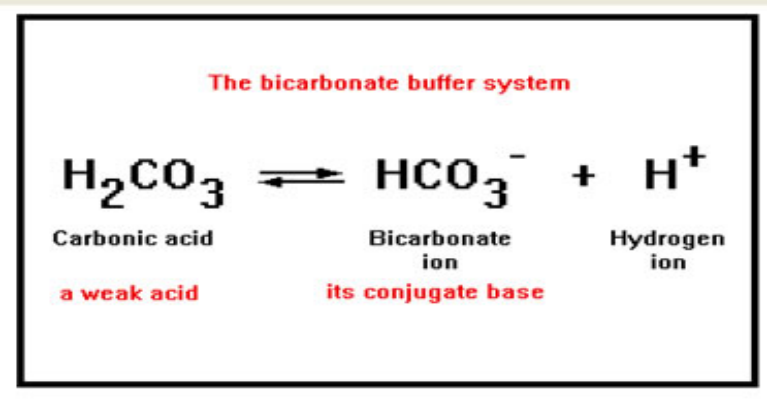
Bases: accept H+ and increase the pH

Example: Acid and Base

$HCl + NaOH \rightarrow NaCl + H_2O$

Buffers

- A chemical that keeps the pH level stable



Discussion Questions

- Acids/Bases are very important in biology because they help us control what chemistry occurs in our bodies. **Enzymes** in our digestive system work at different pH levels to help our bodies digest food in an efficient way. How is the advantage or disadvantage of controlling our enzymes function with pH instead of another aspect of our physiology such a temperature?
- If your blood became acid or basic what might happen?

Take Away Task

1. Read Article: Understanding Acid Base Balance in the Human Body. Complete on fresh grade.
2. Checkpoint Question Answer Key is upload to website.
3. Study guide for Test Tuesday, November 21st
   - Review Learning Intention from slides

Next Day: Acid and Base Lab