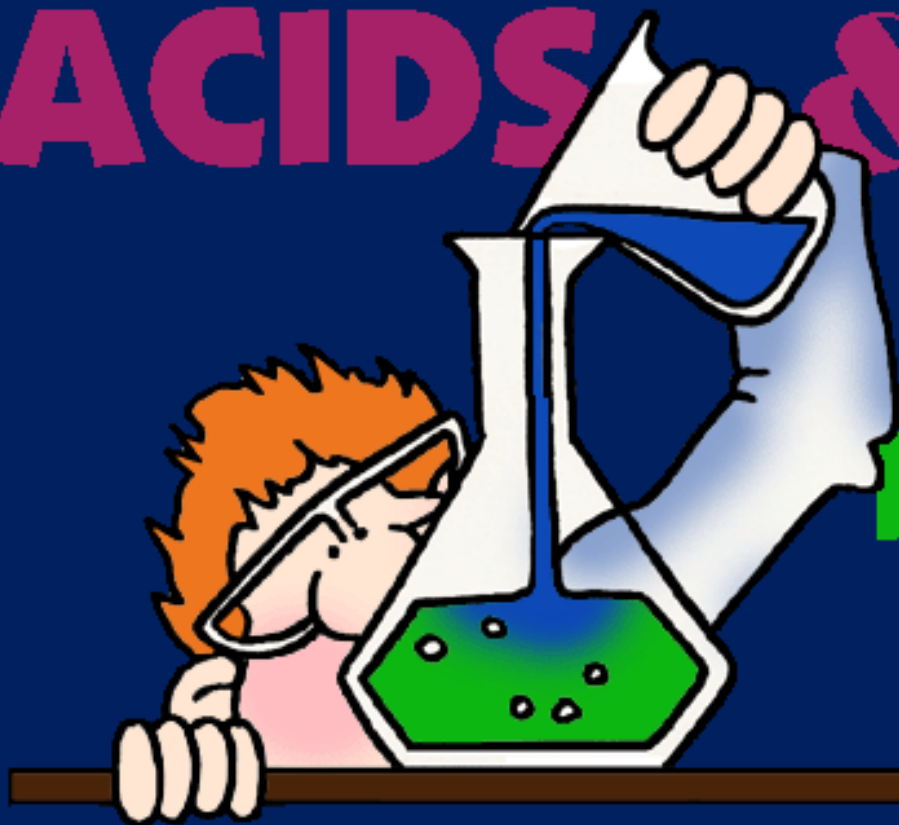


ACIDS & BASES, pH Scale, and Neutralizers



Acids in our stomach help us digest food. Why doesn't that same acid dissolve our cells?

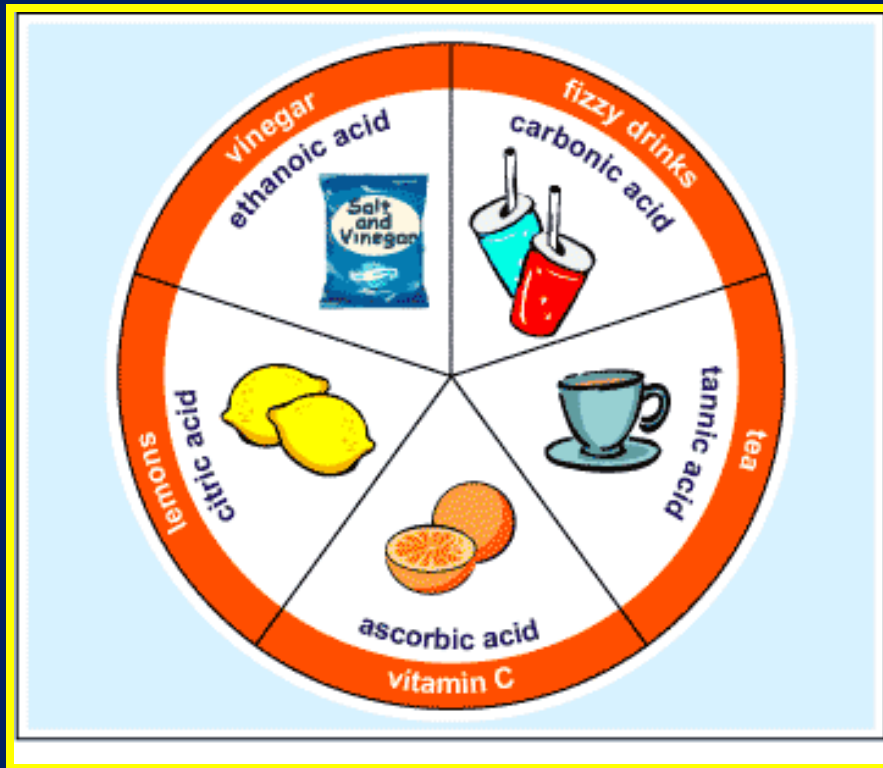


pH is a measurement of how much hydrogen ions a substance releases when dissolved in water



pH is measured on a scale from
0 - 14

Acids release hydrogen ions (H^+) when placed in water and have a pH below 7



Acids in food give them a sour taste

Stomach acid is mostly made up of HCL with a pH of 3

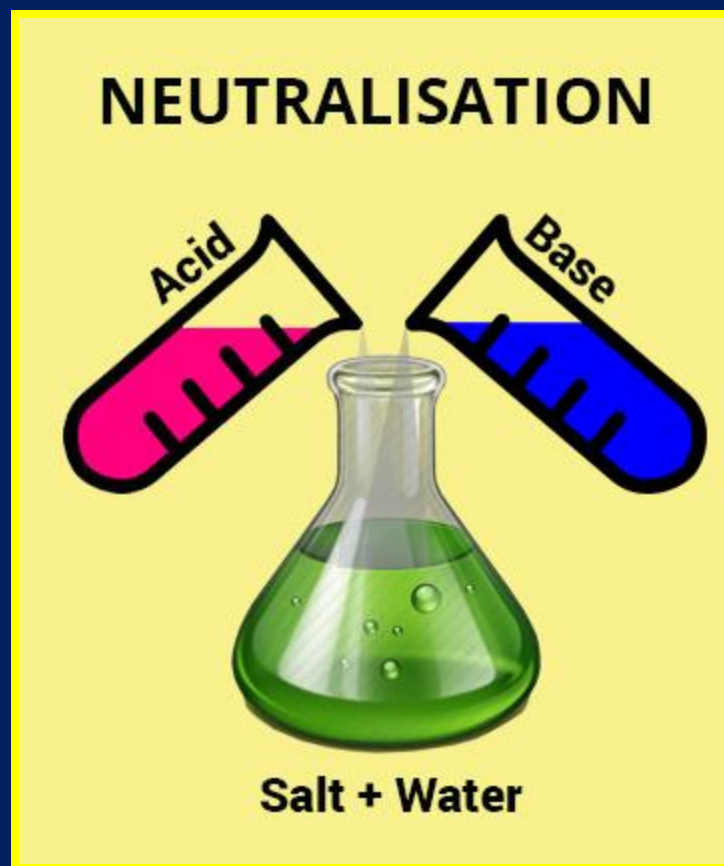
Bases release OH^- ions when placed in water and have a pH above 7



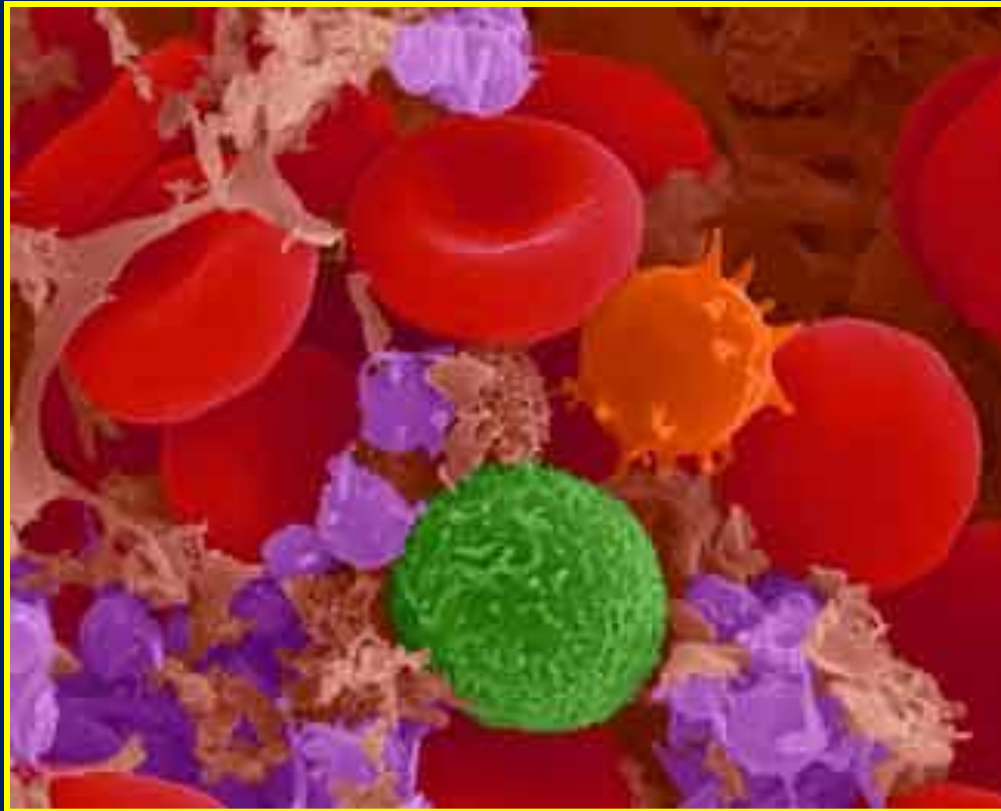
Bases taste bitter and are often slippery to the touch

Our intestines contain a strong base called NaOH with a pH of 14

When an acid and a base are added together, the H^+ ions combine with the OH^- ions to form H_2O and salt, in a process called neutralization.



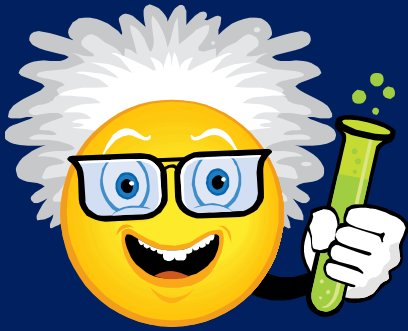
Cells contain buffers which are chemicals that help neutralize acids or bases so that the cells can maintain stable pH levels



Homeostasis is maintaining a stable internal environment



Cells need to maintain a stable pH



Buffers

Stabilize pH

Levels in Cells

The End