

Acids and Bases

What qualifies as an acid or a base?

Two Different Theories:

	Arrhenius	Bronsted-Lowery
Acid	Dissociates to make H^{+1}	Proton (H^{+1}) donors
Base	Dissociates to make OH^{-1}	Proton (H^{+1}) acceptors

The pH Scale:



pH – concentration of H^{+1}

pOH – concentration of OH^{-1}

$$pH + pOH = 14$$

Characteristics of Acids & Bases

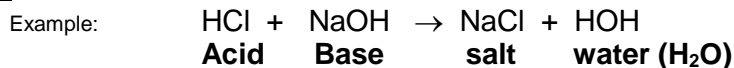
Acids	Bases
sour taste	bitter taste
low pH	slippery feel
turns litmus paper red	high pH
	turns litmus paper blue

Naming Acids – acids start with an “H” (ex) HCl = hydrochloric acid

Naming Bases – bases have an “OH” (ex) NaOH = sodium hydroxide

exception: ammonia = NH_3

Neutralization: acid and base combine to make salt and water



Titration – laboratory technique to determine concentration of H^{+1} and OH^{-1}

- Indicators show color changes at certain pH levels.

Indicator – a substance that causes a solution to change color to indicate acidity or basicity