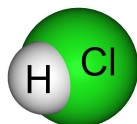


ACIDS & Bases



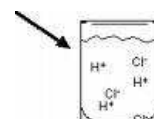
- Acids form **covalent** bonds
eg) HCl
- just like molecular compounds, acids are neutral (no charge)

THE DIFFERENCE:

- when acids are dissolved in water, they **break apart** (like ionic molecules)
eg) $\text{HCl} \longrightarrow \text{H}^+ \text{Cl}^-$

REMEMBER:

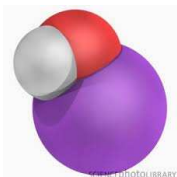
- Normally, acids act as molecular compounds (form covalent bonds) BUT when in water they have ionic characteristics (break apart)



Bases are ionic compounds where the second ion is a group called the hydroxide ion (OH^-).

eg) NaOH sodium hydroxide

The OH^- ion group is considered one unit and does not break apart.



How do we Measure The Strength of An ACID/Bases

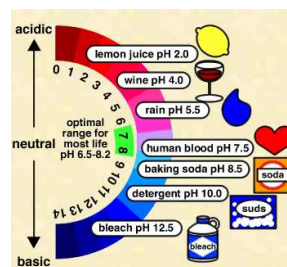
pH - power of Hydrogen
- measures the number of H^+ ions in a solution

Acids have a low pH

> many H^+ ions and
few OH^- ions

Bases have a high pH

> few H^+ ions
and many OH^- ions



Naming ACIDS:

Step 1- Write the chemical name for the non-hydrogen element.

Step 2- Add the prefix "Hydro" and replace the end of the element with "ic"

Step 3- Acids always end with the word "acid"

Formulas for ACIDS:

Chemical formulas for acids always begin with at least one H

Naming BASES:

Step 1- Write the chemical name for the metal.

Step 2- Add the word "hydroxide"

Formulas for BASES:

Chemical formulas for bases will always end with a OH