

# Solutions

solution -homogenous mixture

-composed of a solute dissolved in a solvent

Ex. salt water -solute NaCl

-solvent H<sub>2</sub>O

Carbonated water -solute CO<sub>2</sub>(g)

-solvent H<sub>2</sub>O(l)

Aqueous(aq)-a solution in which the solvent is water

# Solution Types

unsaturated - contains less than the maximum amount of solute a given amount of solvent can dissolve at a particular temperature

saturated - contains the maximum amount of solute a given amount of solvent can dissolve at a particular temperature

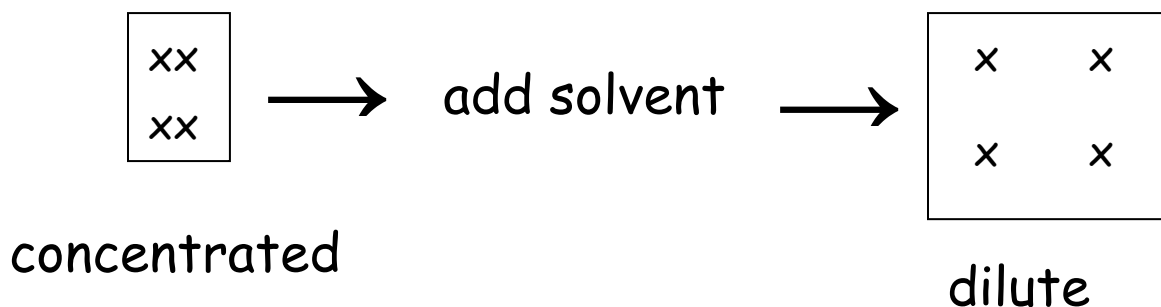
supersaturated - contains more than the maximum amount of solute a given amount of solvent can dissolve at a particular temperature

concentrated - contains a relatively large amount of solute compared to the amount of solvent

xx
xx

dilute - contains a relatively large amount of solute compared to the amount of solvent

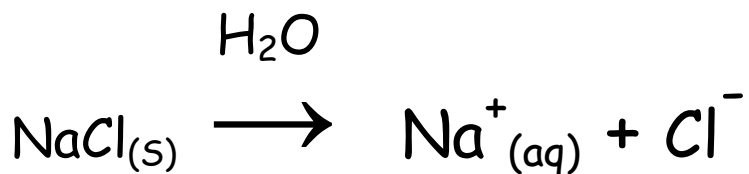
x	x
x	x



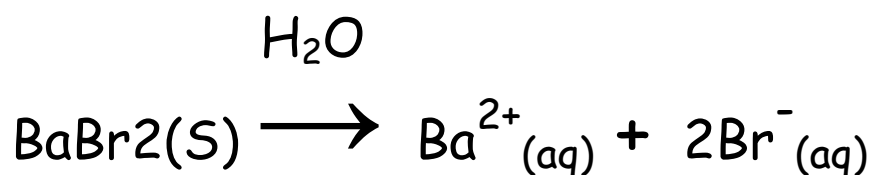
## Dissolving Equations for Aqueous Solutions

-ionic compounds may dissolve in water and separate into the positive (+) and negative (-) ions that make up the compound

ex.



ex. write the dissolving equation for  $\text{BaBr}_2$



ex. write the dissolving equation for NaOH

