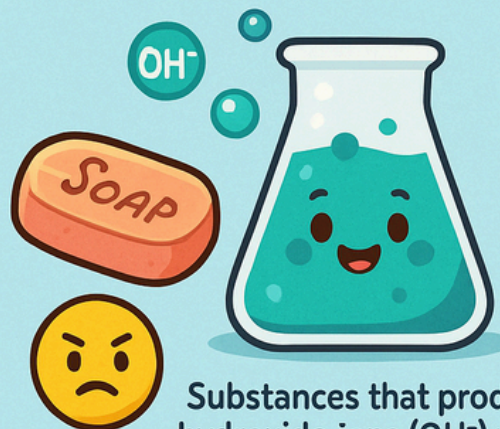


# Acids vs Bases



- Substances that produce hydrogen ions ( $H^+$ ) when dissolved in water.
- Taste sour and are corrosive.
- Common examples:  
Hydrochloric acid ( $HCl$ ), Sulfuric acid ( $H_2SO_4$ ), Acetic acid ( $CH_3COOH$ )



- Substances that produce hydroxide ions ( $OH^-$ ) when dissolved in water.
- Taste bitter and feel slippery/soapy.
  - Common examples:  
Sodium hydroxide ( $NaOH$ ),  
Potassium hydroxide ( $KOH$ ),  
Ammonia ( $NH_3$  in water)

# Strong vs. Weak Acids and Bases

## Strong Acids/Bases

Completely dissociate (break apart into ions) in water.

Example:  $HCl$ ,  $H_2SO_4$ ,  $NaOH$ ,  $KOH$



## Weak Acids/Bases

Only partially dissociate in water

Example:  $CH_3COOH$  (weak acid),  
 $NH_3$  (weak base)

