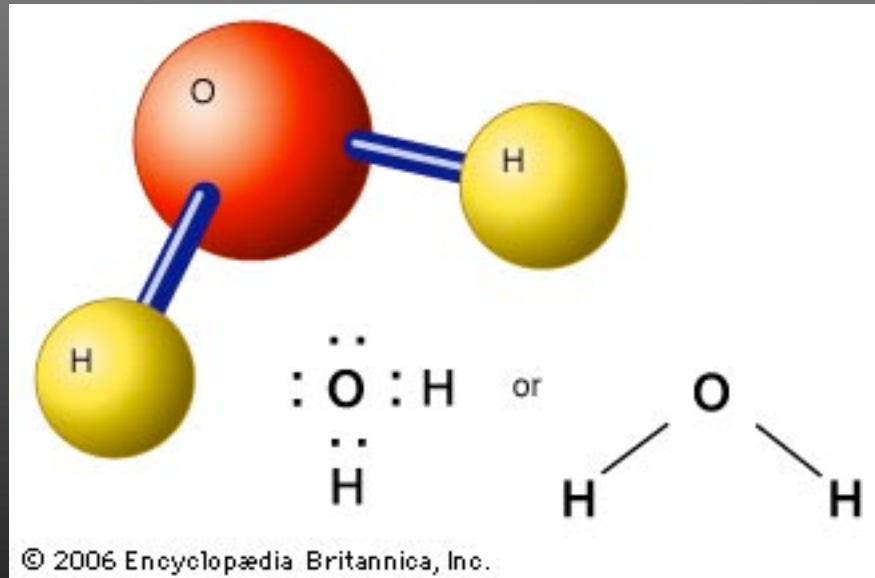


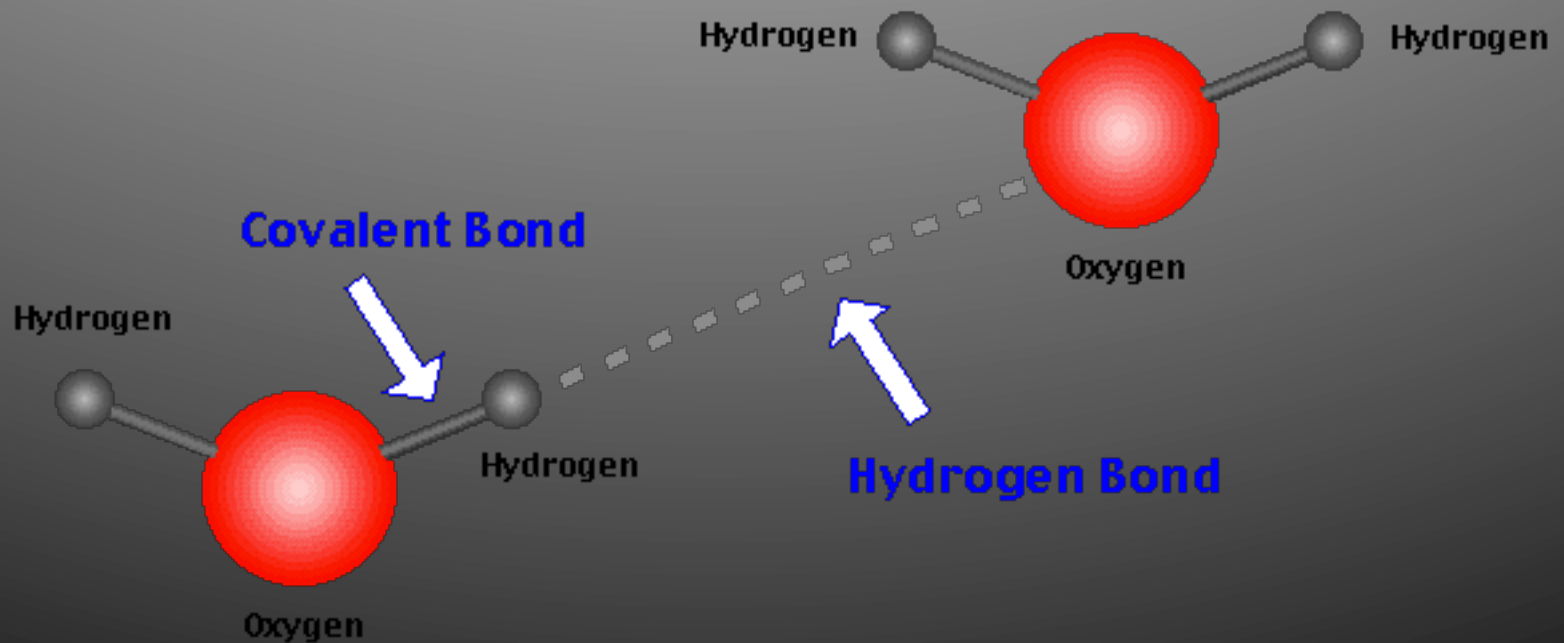
# Ch 2-2: Properties of Water

## Essential Questions:

- Why are water molecules polar?
- What are acidic and basic solutions?



- Uneven sharing of  $e^-$  between O and H
  - + and – “poles” to water molecule
- Attraction between + and – ends
  - *hydrogen bond*



- H-bonding causes
  - *Cohesion*
  - *Adhesion* –
    - Capillary action
  - Thermal properties
    - High *specific heat*



- Solutions & suspensions
  - *Mixture*
  - *Solution*
    - *Solute*
    - *Solvent*
  - Water is an great solvent due to H bonding



- Acids, bases, pH

- Water can react to form ions



- Pure water = neutral

- pH scale: shows conc of  $\text{H}^+$

- Acid: forms  $\text{H}^+$  ions

- $[\text{H}^+] >$  pure water,  $\text{pH} < 7$

- Base: forms  $\text{OH}^-$  ions

- $[\text{H}^+] <$  pure water,  $\text{pH} > 7$

