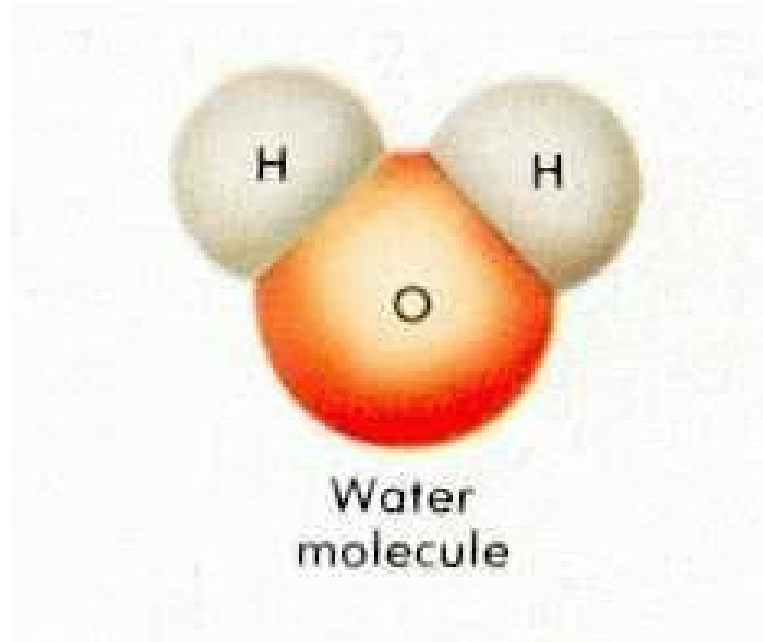


Paper Chromatography

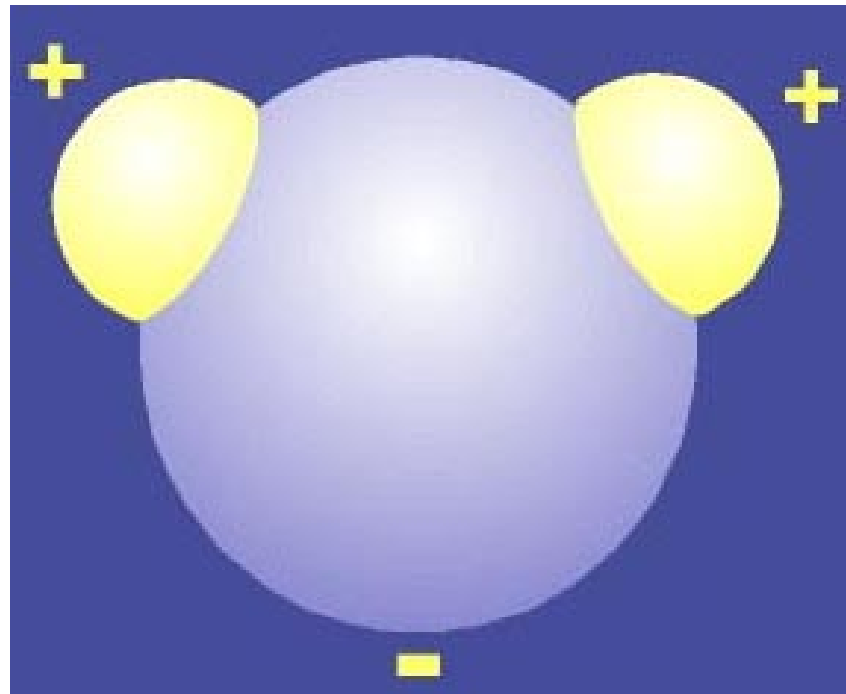
Properties of Water

- Shape – water has a “teddy bear” shape, with hydrogen atoms located on one side of the molecule



Properties of Water

- Polarity – when the electrons are not distributed evenly within a molecule, the molecule exhibits negative and positive poles, like a magnet

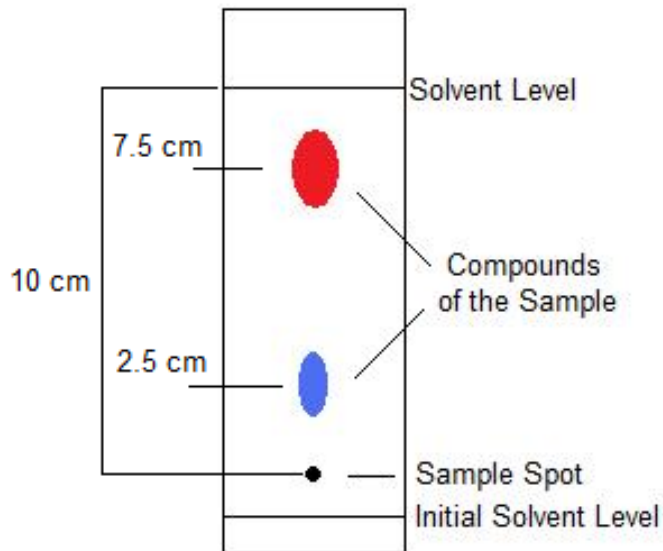


Solubility

- Components of a solution
 - solute – the material that is dissolved
 - solvent – the material that dissolves the solute
 - Components of a solution
- “Like dissolves like” – molecules that are polar dissolve in other polar materials; molecules that are nonpolar dissolve in other nonpolar substances
- Solutions – water is called the “universal solvent” because it dissolves a variety of compounds.

Paper Chromatography

- Retention factor (Rf)
 - Shows how well a solute dissolves in a solvent
 - The higher the Rf, the more soluble a component



$$R_f = \frac{\text{Migration Distance of Substance}}{\text{Migration Distance of Solvent Front}}$$