1. Water and Life - in box

2. Water is very important for life - it is the medium in which life survives
   a. Important properties come from hydrogen bond between molecules
      i. Polar molecule
         1. High specific heat capacity - moderates environmental temperature change - especially for aquatic organisms
         2. High heat of vaporization - great for cooling organisms
            a. Panting dogs
            b. Sweating humans
   3. Maximum density at 4 degrees C
      a. Ice is about 10% less dense than water
      b. Allows aquatic organisms to survive in frozen lake
   4. Solvent properties
      a. Easily dissolves ionic or polar compounds
         i. Sugars
         ii. Salts
         iii. Carbon dioxide
      b. Does not dissolve non-polar compounds
         i. Oils - Fats
         ii. Gases - sparingly soluble in water oxygen & nitrogen