Table 2.1 Important Properties of Water

Property	Effects
Excellent solvent	Transport of nutrients and waste products enabling biological processes to occur in an aqueous medium
Highest dielectric constant of any common liquid	High solubility of ionic substances and their ionization in solution
Higher surface tension than any other liquid	Controlling factor in physiology; governs drop and surface phenomena
Transparent to visible and longer wavelength ultraviolet light	Colorless, allowing light required for photosynthesis to reach considerable depths in
Maximum density as a liquid at 4°C	Ice floats and vertical circulation is restricted in stratified bodies of water
Higher heat of evaporation than any other material	Determines transfer of heat and water molecules between the atmosphere and bodies of water
Higher latent heat of fusion than any other liquid except ammonia	The temperature of water in a body of water is stabilized at the freezing point of water
Higher heat capacity than any other liquid except ammonia	Stabilization of temperatures of organisms and geographical regions