

Water

Biology

The properties that make water essential, and the reason for each.

Property, and its biological consequence.

Property	Because	Matters for
Universal solvent	Polarity	Transport, reactions
High specific heat	H bonds absorb energy	Temperature stability
High latent heat of vaporisation	Breaking H bonds	Evaporative cooling
Cohesion	H bonds between molecules	Transpiration stream
Surface tension	Cohesion at the surface	Habitat for small organisms
Less dense as ice	Lattice structure	Ice floats; insulates water below

Ice floating is unusual and consequential: if ice sank, bodies of water would freeze solid from the bottom.