

Solutions

Each answer shows the steps, then the **result**.

2.1

- oxygen is slightly negative ($\delta-$); the hydrogens are slightly positive ($\delta+$)

2.2

- solvent action / it is a (good) solvent

3.1

- the $\delta+$ hydrogen of one water molecule is attracted to the $\delta-$ oxygen of another; this attraction is the hydrogen bond

3.2

(a)

- energy must be absorbed to break/loosen many hydrogen bonds before the molecules move faster, so the temperature rises only slowly

(b)

- it keeps the temperature of cells/organisms or aquatic habitats stable

3.3

- evaporation needs much energy to break the hydrogen bonds holding water molecules together; this energy (latent heat) is taken from the skin/body, so the body loses heat and cools