

Name:

An Introduction to Water

What do all living organisms require more than anything else?

- ❖ Most Cells are surrounded by water. Cells themselves are about _____ water.

Four Properties that facilitate life:

1. _____

2. _____

3. _____

4. _____

- ❖ Water is a _____ Molecule: Opposite ends have _____.

Why is water's Polarity important?

- ❖ Cohesion:

Surface Tension:

- ❖ Adhesion:

- ❖ The Oxygen end of water has a _____ charge, while the Hydrogen's have a _____ charge.

This is what gives water its _____ and _____ properties.

- ❖ Water can absorb and release _____ w/ only a _____.

❖ Specific Heat:

What is water's specific heat?

What happens when Hydrogen bonds break?

What happens when hydrogen bonds form?

❖ What is Evaporative Cooling? Why is it important to living organisms?

❖ Why is water called the universal solvent?

❖ Water is a versatile solvent due to _____.

Acids and Bases

❖ Dissociation of water leads to:

❖ The molecule that loses a proton becomes _____ (OH^-), while the molecule that gains an electron becomes _____ (H_3O^+)

❖ In pure water the concentrations of Hydronium and Hydroxide are _____.

❖ Acids have a pH ranges from _____ and _____ the H^+ concentration of a solution.

❖ Bases have a pH ranging from _____ and _____ the H^+ concentration of a solution.

Give examples of Acids:

Bases:

Buffers are: