

Bozeman Video Guide: Water as a Polar Molecule

1. Electronegativity means _____
2. Oxygen is unique because _____
3. Why does water behave like a magnet?

4. The bond between oxygen and hydrogen **within** a water molecule is a _____ bond
5. The bond between oxygen and hydrogen on **different** water molecules is a _____ bond
6. Draw the hydrogen bonds between the five water molecules show at 3:48 (pause the video here!)

7. _____ is a polar molecule, _____ is a nonpolar molecule.

8. Using the table below, describe the five properties of water that are due to its polarity.

| Property | Description | “Real life” application of this property |
|--------------------|-------------|--|
| High specific heat | | |
| Solvent | | |
| Cohesion | | |
| Capillary action | | |
| Ice floats | | |

9. Why is Seattle warmer in the winter than Yellowstone, even though both locations are at similar latitudes?

10. How does water get to the top of a tree?

11. Why is it “good” for aquatic organisms that live in cold climates that ice floats?