The Properties of Water Activity

Objective: Students will learn to describe the physical and chemical properties of water. Students will be a blue to explain how water dissolves other polar substances. Students will learn to identify the three states in which water exists on Earth.

Part 1: Using pages 23-29, students will define the following terms: polar molecule, surface tension, capillary action, solution, solvent, states, evaporation, condensation, specific heat.

Part 2: Students will construct a model of a water molecule. Sketch label and define figure 6 on page 24.

Part 3: Construct a flow chart showing how water changes into the three different states.

Part 4: Answer the following questions in complete sentences.

1. Describe the arrangement of the atoms in a water molecule. What makes it a polar molecule?
2. List a solid, a liquid, and a gas that dissolve in water.
3. In which state do water molecules have the most energy?
4. What causes water molecules to be attracted to each other?
5. Why does sugar dissolve well in water?
6. Describe what is happening to the water molecules as ice melts.
7. What unusual fact about ice causes it to float in liquid water?
8. If you place a cup of water and a cup of sand in the sun, which one will heat up faster? Explain your answer in terms of the properties of water.