Properties of Water in the Lake Champlain Basin
December 13, 2011

Grades: 3 – 6

Time: 45 minutes

Rationale and Context: We live in a remarkable landscape called the Lake Champlain Basin. The properties of water and the influences of topography and human impact can dramatically change the water quality. The health of all communities depends on our knowledge and stewardship of the life sustaining properties of water.

Vermont Standard(s):

Vermont Standard	Grade Expectations	Inquiry Skills and Content
7.1	S.2 & 4	Make predictions and conduct experiments that simulate environmental conditions related to the properties of water.
7.12	S.9, 12 & 14	Explore the properties of water through demonstrations of density, flow, surface tension, dissolving, solutions and temperature change and its effect on our lake
7.15	S.48	Explain the processes in the water cycle.

Learning/Behavioral Objective(s):

1. Observe the states of water (solid, liquid and gas) through a model of the lake and the water cycle. Consider how the properties of water influence life in the lake.
2. Consider density of Lake water changes as temperature fluctuates through the seasons.
3. Make predictions of how water will flow from higher to lower elevations when obstacles are placed in its path.
4. Observe how different forms of matter can be dissolved into a solution or suspended in water.
5. Observe the concept of sedimentation from suspended material.
6. Consider how surface tension benefits life in the lake and how human impact can disturb this important property of water.
7. Consider how non-point source pollution can influence the health of Lake Champlain.