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

Grades: 3 – 6

Time: 45 minutes

Rationale and Context: The properties of matter influence our thinking about the living and non-living world in complex ways. Having an understanding of basic principles of how matter behaves within the context of familiar materials – using our prior knowledge – provides a foundation for exploring the properties of matter in an environmental context, in particular the Lake Champlain Basin. This learning includes looking at the geology, water, and living things that depend on the basin ecosystem.

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 matter.
7.12	S.9, 12, 14 & 15	Explore the properties of matter through demonstrations of the states of matter, volume, and change and/or chemical and physical change as it relates to living and non-living things in the Lake Champlain Basin.
7.15	S.46	Explain the processes of water percolation in soils (their density).

Learning/Behavioral Objective(s):

1. Explore volume by comparing water as a natural resource on the planet, its various states (solid ice, liquid water and gaseous water vapor) and water quality.
2. Experiment with earth materials and concepts of percolation, turbulence and dissolving gases.
3. Compare physical and chemical changes of living things in the Lake Champlain Basin.