
Pumphouse Relay



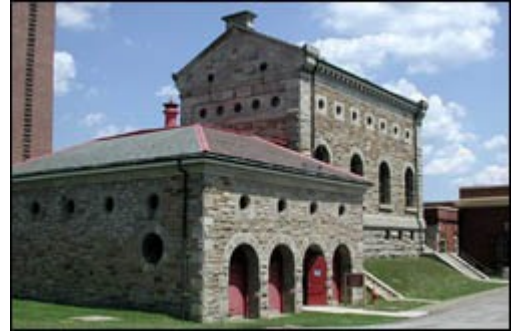
curriculum links

Grade 2:

- Understanding Matter and Energy:
Properties of Liquids and Solids

overview

The Hamilton Museum of Steam and Technology presents a 2-part activity center that represents their primary artifact, the 1859 Hamilton Waterworks. The Waterworks pumped clean water from Lake Ontario to the city of Hamilton so people could stop using wells and outhouses. Students use their senses to distinguish dirty water from clean water, just like a 19th century person would have, and use a hand powered pump. Students also pretend to be water as they physically go through the water systems, pipes etc.



grade 2 expectations

Science and Technology

Understanding Matter and Energy: Properties of Liquids and Solids

Overall Expectations

- assess ways in which the uses of liquids and solids can have an impact on society and the environment

Specific Expectations

Relating Science and Technology to Society and the Environment

- assess the impacts of changes in state of solids and liquids on individuals and society.

Developing Investigation and Communication Skills

- investigate the properties of liquids and solids;
- use appropriate science and technology vocabulary.

Understanding Basic Concepts

- describe the properties of solids and liquids;
- describe the characteristics of liquid water and solid water, and identify the conditions that cause changes from one to the other



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key terms

Cholera - An acute infectious disease of the small intestine, caused by the bacterium *Vibrio cholerae* and characterized by profuse watery diarrhea, vomiting, muscle cramps, severe dehydration, and depletion of electrolytes.

Groundwater - Water that collects or flows beneath the Earth's surface, filling the porous spaces in soil, sediment, and rocks.

Hamilton Waterworks - Set of engines and buildings that pumped water to the city of Hamilton for the first time in 1859.

Liquid - Composed of molecules that move freely among themselves but do not tend to separate like those of gases.

Outhouse - An outbuilding with seats and a pit that serves as a toilet.

Pumphouse - Building at the Waterworks that contains the steam powered water pumps.

Reservoir - An artificial lake used to store water.

Solid - Having three dimensions (length, breadth, and thickness), as a geometrical body or figure.

Solute - A substance dissolved into another substance.

Solution - The process by which a gas, liquid, or solid is dispersed homogeneously in a gas, liquid, or solid without chemical change

Solvent - A substance, usually a liquid, capable of dissolving another substance.

Waterborne disease - Are pathogenic microorganisms which are directly transmitted when contaminated drinking water is consumed.

Well - A hole dug deep enough to hit groundwater to serve as a water source.

