



DUNDAS
MUSEUM &
ARCHIVES

DISCO

“I learn!”

GRADE 1 SCIENCE - Understanding Structures And Mechanisms: Materials, Objects, and Everyday Structures

Upon arrival, you and your students will be greeted by DMA’s own resident scientist, Professor Interrogo, who will welcome you and escort you to his laboratory.



1 A human "structure" put to good use by nature.

After examining some materials commonly found in the natural world – wood in trees, grasses, stones, clay in the earth, snow and ice – the students will explore, first, how creatures use these materials to build various structures: bird nests, for example, and beaver dams. Students will then journey to the Iroquois Longhouse at the museum to consider how First Nations people used materials found in nature to construct certain structures and objects.

Your students will enjoy the opportunity to see many objects that were part of the everyday life of the early settlers of Dundas, especially early tools that were used to fashion

different structures, used in the production of fabric, and implements necessary for

agriculture. The students will find it quite fascinating that our early settlers transformed many natural materials in their everyday life: flax became linen, animal fat became tallow for candles, turtle shells were used for combs. What tool was used to make early shingles (shakes) for a home? Barrels were an essential container for shipping flour and other goods. How were they made? What kind of material made the best mill stones for grinding grains into flour? What did the grade 1 student use for a “notebook” 200 years ago?



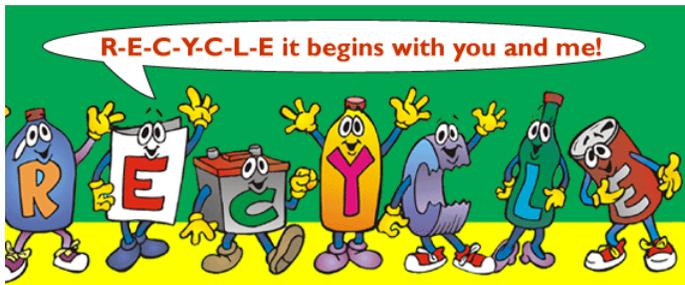
2 The heckling comb prepares flax for the spinning wheel.

Students will be challenged to group objects according to material and function. There will also be the opportunity to discover some rather strange objects that were part of pioneer life and try to figure out what purpose they might serve. Heckling comb, foot jack and bung-hole drill are just a couple of examples.

A key element of this educational experience for the grade 1 student focuses on stewardship of the environment. Technology has allowed us to turn rubber tree sap into rubber tires and cotton into celluloid. What would our world be like without the invention of plastic? This invention alone has saved species like the turtle and the elephant, sought for their shells and ivory tusks. Likewise, the sperm whale, which was hunted to all but extinction for its precious oil used for lamps and candles. All the same, these developments pose challenges for the environment. Petroleum is now a major source of pollution and the plastic white board marker will not dissolve into the soil of a land-fill site the way chalk does. Worn car tires are often burned producing toxic fumes in the air.



3 Sap from a rubber tree



The visit by your grade 1 students concludes with the opportunity to craft and decorate a pinch pot as the First Nations people would have done. This is made from air-dry clay which they can take home as a memento of their visit to the DMA.

Students will also receive a “homework” pamphlet to take home and show their parents. This includes a word search to reinforce words and concepts learned during the visit.

From The Ontario Curriculum, Grades 1-8, Science and Technology, 2007, this Education Module offered by the DMA addresses the following expectations: Overall Expectations 1, 2, and 3. Specific Expectations 2.2, 2.3, 2.5, 2.6, 3.1, 3.2, 3.3, 3.4, 3.5, 3.6, 3.7, 3.9 (pp. 47-49).