



The Escaping Escarpment

Source: <http://canadiangeographic.ca/cqkids/cqkids.asp>

Materials

- Sand
- Soil
- Pebbles and larger rocks
- Large flat stone (like a paving stone)
- Watering can with water

Instructions

Outside, build a mountain about half-a-metre high. Use as much of the materials as you like—it all depends on how big you want to make your escarpment!

First, put down the sand, then spread soil on top, add the pebbles and rocks, then layer a bit more sand and soil. Because the layers of the Niagara Escarpment were laid down over a long period of time, each one was different. The last layer deposited was harder than the others. For that layer, put a large paving stone on the top of your mountain. The different layers should be visible along the sides. Plant a metre stick beside the “escarpment” and note the height of your cliff.

Water and rain are major forces of erosion. These forces of nature break down the rocks and carry the debris away. With your watering can, pour “rain” on your mountain. What happens? Watch how the layers break down and note which material is carried furthest by the water. Observe your escarpment over several days. Is it getting smaller? What kinds of weather are affecting the escarpment the most?

What is happening to the large paving stone on the top? Even though it is made of a harder material than the other layers, as those underlayers erode, the top becomes less stable and will eventually break down. Over time, the Niagara Escarpment was created as nature wore away the rock. In fact, wind and rain continue the erosion process today.