Grade 7 Geography

**Strand A:** Physical Patterns in a Changing World

**Strand B:** Natural Resources
4 basic concepts of geographic thinking:

A. Spatial significance
B. Patterns and trends
C. Interrelationships
D. Geographic Perspectives
Inquiry process has 5 components:

• Formulating questions
• Gathering and organizing information, evidence, and/or data
• Interpreting and analyzing information, evidence, and/or data
• Evaluating information, evidence, and/or data
• Communicating findings
By the end of Grade 7, students will:

**A3.1** identify the location and describe the physical characteristics of various landforms (eg. mountains, plateaus, plains, valleys)
LEARNING GOALS - 2

By the end of Grade 7, students will:

A3.2 describe some key natural processes and human activities (eg. tectonic forces, weathering and erosion, deposition, glaciation) that create and change landforms
By the end of Grade 7, students will:

**A3.3** demonstrate the ability to extract information from and analyse topographical maps (eg. *construct a cross-section of a landform based on the information from a topographical map*)
SUCCESS CRITERIA

To be developed by students and posted on classroom wall.
One of the best examples of “Badland topography” in Ontario
Bedrock of the Badlands is Queenston Shale, the base rock of the Niagara Escarpment; it is over 445 million years old
Due to removal of vegetation during land clearing and livestock grazing in the early 1900’s, the shale has eroded into a series of hummocks and gullies
DEVIL’S WELL – ROCKWOOD, ONT.

• One of the largest potholes in the world
• Adjacent to Richardson Creek, in Rockwood, Ont.
• A sequence of potholes might have existed within the valley
• 13.1 m deep; 6.4 m wide at the top; 4.9 m wide at the base
• Large enough to take two city buses side by side
• The generally accepted belief is that high volumes of rapidly flowing water, probably in an ice-marginal, or possibly sub-glacial river enlarged weak points in the bedrock and established the site for a pothole (>300).
• Associated with the floods of meltwater from the retreating WISCONSINAN ice sheet about 13,000 to 12,000 years ago.
Devil’s Well
Most lakes are holomictic; that is, at least once per year, physical mixing occurs between the surface and the deep waters. In monomictic lakes the mixing occurs once per year; in dimictic lakes the mixing occurs twice a year (typically spring and autumn), and in polymictic lakes the mixing occurs several times a year. In meromictic lakes, the layers of the lake water remain unmixed for years, decades, or centuries.
CRAWFORD LAKE INDIAN VILLAGE SITE

The first prehistoric village in the eastern woodlands area of North America to be accurately dated, this archaeological site has revealed much about Iroquoian agriculture. A study of sediment collected from Crawford Lake in 1971 led to discovery of the site. A small, deep body of water, this meromictic lake has limited circulation and little oxygen below the 12-metre level, ensuring the preservation of annual deposits of sediment in undisturbed layers called varves. Analysis of their pollen content showed vegetational changes in the area over time and a concentration of corn pollen, dated 1434-59, suggested the existence of an Indian village nearby. In 1973 this site was located. Excavations undertaken here during the following decade confirmed that native agriculturalists contributed substantially to the region's changing environment.
The Niagara Escarpment, southern Ontario’s most striking land formation, began as sediment deposited in a salt water bay that covered most of what is now southern Ontario. Gradual accumulation of this sediment occurred between 445 and 420 million years ago (Paleozoic Era).
• 200 million years ago, when the waters retreated and this part of the continent arose, many rivers (like the Niagara) started their steady process of erosion.
• The escarpment’s rock formation consists of a cap of erosion-resistant dolomite and underlying layers of soft and easily eroded shale.
• Hence the escarpment’s cliff-like appearance, since the lower layers eroded more quickly.
• Niagara Falls began life 11 kilometers downstream at Queenston. The gorge started its formation 25,000 years ago.