LAKEHEAD REGION
CONSERVATION AUTHORITY

WATERSHED CONNECTIONS

Complimentary In-Class Component

Watershed Connections is a program designed to help students understand how a watershed works. The importance of watersheds to both people and wildlife is explained using a slideshow presentation and two core activity centres, plus an optional (paid) field trip. This in-class component is complementary.

Teachers choose one of the following:

1) The first activity centre involves the Lakehead Watershed and the rivers, streams and divides within it. Small groups of students discover the catchment basin for rivers and streams in their community.

A 3D activity includes viewing air photographs at viewing stations which show the watershed in 3D where divides can be seen visually along with river valleys and erosion.
A wrap-up activity involves creating a model watershed using salt ceramic dough to model a watershed. In-class follow-up time is required.

2) Water quality tests including pH, total dissolved solids and water clarity are included in this activity. This component of the program involves water quality testing and the EarthEcho Water Challenge (formerly World Water Monitoring Challenge).

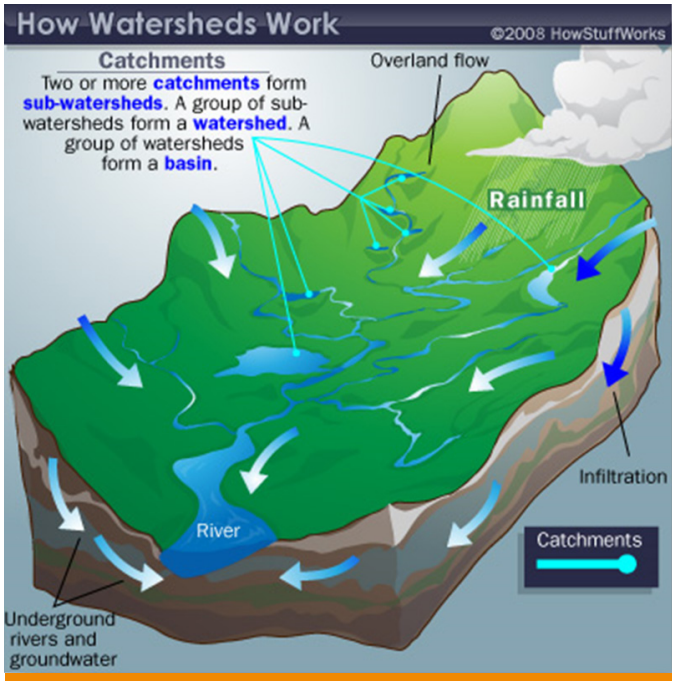
Field Study– May and June (Fees Apply)

The complimentary indoor program can be paired with an optional field study at one of our Conservation Areas:

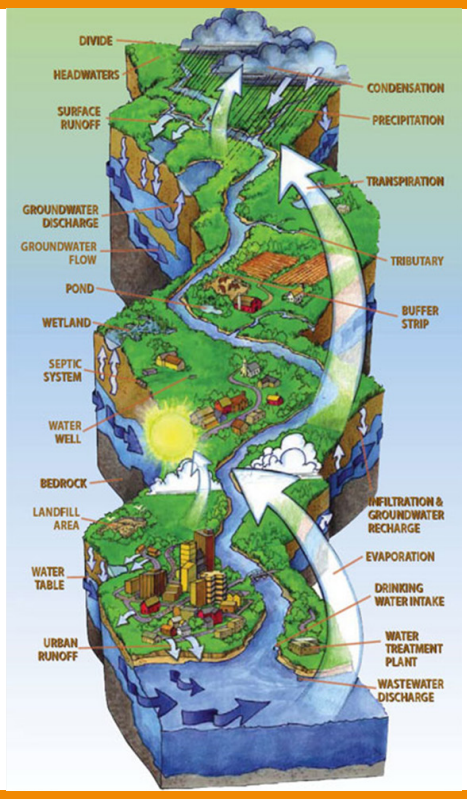
A) A GPS skills and mapping program can be paired with activity #1.

OR

B) A field study focusing on life in wetland areas along with water quality testing and a pond study of invertebrate species can be paired with activity #2.



A simple example of how a watershed works.



A representation of a watershed.

Curriculum Connections- Specific Expectations from Gr. 6-11 Science & Geography

Big Ideas: Water is crucial to life on Earth (overall expectations 1 and 2). Water is an important resource that needs to be managed sustainably. Water appears 1000's of times in the Ontario Curriculum. The expectations below are some of the key ones addressed in the "Watershed Connections" program.

Grade 6 - Biodiversity

2.2 investigate the organisms found in a specific habitat and classify them according to a classification system
2.3 use scientific inquiry/research skills to compare the characteristics of organisms within the plant or animal kingdoms (e.g. compare the characteristics of a fish and a mammal, of coniferous and deciduous trees, of ferns and flowering plants
2.4 use appropriate science and technology vocabulary, including classification, biodiversity, natural community, interrelationships, vertebrate, invertebrate, stability, characteristics, and organism

Grade 7 - Geography

A3.3 demonstrate the ability to extract information from and analyze topographical maps (e.g. construct cross-sections of landforms based on information from a topographical map)
A3.4 describe patterns and physical characteristics of some major water bodies and systems around the world (e.g. river systems, drainage basins, lakes and oceans).
A3.5 describe some key natural processes and human activities (e.g. changes in rainfall, melting of glaciers, erosion, rising sea levels, climate change, constructing dams, irrigation, bottling water from aquifers).

Grade 8 - Science

2.6 use appropriate science and technology vocabulary, including water table, aquifer, polar ice-cap, and salinity, in oral and written communications.
3.2 demonstrate an understanding of the watershed as a fundamental geographic unit and explain how it relates to water management and planning.
3.3 explain how human and natural factors cause changes in the water table.

Grade 9 - Science

B2.4 plan and conduct an investigation, involving both inquiry and research, into how a human activity affects water quality (e.g. leaching of organic or inorganic fertilizers or pesticides into water systems, changes to watersheds resulting from deforestation or land development, diversion of ground water for industrial uses).

Grade 11 - Environmental Science

C2.3 investigate, through laboratory inquiry or field study, water samples from natural and disturbed environments (e.g. tap water; pond, river or lake water from disturbed and undisturbed areas; water from an outdoor pool) and analyze the resulting data.
B2.3 plan and conduct an inquiry, using appropriate technology, to compare water quality in natural and disturbed environments (e.g. compare the pH, ion content, temperature, dissolved oxygen content, hardness, turbidity, biological oxygen demand (BOD), tap-water, water from a pond or stream and water from a drainage ditch).