



2016 - 2017

Program Guide & Booking Information

Outdoor Environmental Education

Secondary Schools

Grades 9 – 12



Phone: (905) 627-1233 Fax: (905) 627- 9722

Email: beth.stormont@conservationhamilton.ca

*Connect your class to the out of doors through year round outdoor
Environmental Education Programs offered by the Hamilton Conservation Authority.*

SECONDARY SCHOOL PROGRAMS 2016-2017 Program Guide & Booking Information

OUTDOOR ENVIRONMENTAL EDUCATION



Specialist High Skills Majors: The Environment

Programs with this symbol support requirements for the *Specialist High Skills Majors Program*. Certificates are available by special arrangement for students that successfully complete this SHSM course requirement.

PROGRAM INFORMATION:

- Each program is two hours, (10am-12pm or 12:30-2:30 pm)
- Any two programs can be combined to make up a full day (10 am – 2:30pm)
- Program times can be adapted to suit your transportation schedule
- Cost is **\$255** (plus HST) per class for a half day, two hour program
- Bus & park entry fees are included with the program costs
- Class Size: Maximum of 30 students
- \$5 for each additional student over the maximum

PROGRAM LOCATIONS:

- **Main Location:** Dundas Valley Conservation Area, 650 Governors Road, Dundas, Ontario
- **Conservation Lands:** Spencer Gorge, Valens, Christie Lake, Fifty Point, Eramosa Karst
- For information and costs in relation to our customized outreach programs on Conservation Lands, please contact the Education Program Manager

EXTREME WEATHER:

During weather extremes programs will be modified and a greater portion of the programs will be conducted indoors.

CLOTHING:

- Program participants **are expected** to dress appropriately for the weather and outdoor conditions
- For safety reasons sandals, moccasins or thin, flat shoes are not recommended
- Wear running shoes or hiking boots.

BOOKING PROCEDURES

- Complete the **2016-2017 Booking Request Form** and fax or email it in
- A non-refundable deposit of \$50 is required at the time of booking with the balance due two weeks prior to your booking date
- Teachers will receive a **Confirmation Letter, Directions** and **Pre-Trip Preparation Information** with all the details pertaining to the field trip once a trip date has been finalized via email.
- HCA staff will provide program instruction and facilitation for all sessions.

For more information or to arrange a booking, please contact:

- Beth Stormont, Education Program Manager, B.A., B. Ed., Hamilton Conservation Authority
- Phone: (905) 627-1233 Fax: (905) 627-9722 Email: beth.stormont@conservationhamilton.ca

ENVIRONMENTAL EDUCATION PROGRAM SELECTIONS: 2016-2017

Specialist High Skills Majors: The Environment

- Programs with this symbol support requirements for the *Specialist High Skills Majors Program*.
- Certificates are available for students that successfully complete the SHSM course requirements for an additional a cost

Habitat Analysis

Evaluate the sustainability of two natural communities by analyzing the biotic and abiotic elements in each. Determine how these factors influence the relationships between organisms. Discuss the limiting factors that affect the distribution of biotic populations. Curriculum Links: Science & Technology: Sustainable Ecosystems; Human Activity; Climate Change

Forest Ecology

Learn how to identify deciduous and coniferous trees of the area... Collect data on tree height, width and species to determine the health of a forest ecosystem. Discover the importance of forest ecology in our everyday lives. Investigate limiting factors that affect sustainability. Curriculum Links: Science & Technology: Sustainable Ecosystems; Human Activity; Climate Change.

Wildlife Ecology

Explore the relationship between biotic (living) and abiotic (nonliving) components in an environment. Understand the importance of various ecosystems, niche and their key components. Participate in activities to explore concepts such as; camouflage predator/prey relationships. Gain knowledge about local animal species. Curriculum Links: Science & Technology: Sustainable Ecosystems; Human Activity; Climate Change.

Stream Ecology: *Healthy Streams, Healthy Communities*

Through active participation in sampling and inventory techniques, students will conduct an analysis of an aquatic environment. Students will collect Benthic Macro invertebrates (BMI's) from a shallow stream to determine stream quality. Identify key BMI's that may indicate various pollution levels of a stream. Students will use a dichotomous key to identify species and gain an understanding of aquatic indicator species.

Curriculum Links: Science & Technology: Sustainable Ecosystems; Human Activity; Resource Management; Climate Change. *Fall / Spring*

Conservation Projects:

An opportunity for students to participate in hands-on stewardship and conservation projects. Projects are seasonal and may include: planting of native trees & shrubs; establishment of a rain garden; creation of brush shelters to improve wildlife habitat.

- Planting of native trees & shrubs
- Construction of brush piles, nesting boxes and feeding stations
- Rain Water Harvesting & Rain Garden Project
- Pollinator Garden
- **Note:** Projects vary according to need and season

Curriculum Links: Science & Technology Life Systems Health & Physical Education: Active Participation

OUTDOOR ACTIVE PROGRAM SELECTIONS: 2016-2017

CURRICULUM LINKS:

- Curriculum Links: Health & Physical Education: Active Participation
- All hikes meet *SHSM* requirements

BRUCE TRAIL HIKES:

- Locations: Spencer Gorge or Dundas Valley Conservation Area
- Level of ability is intermediate. Allow a minimum of 2 hours.
- Full or Half Day Hike options available.

Spencer Gorge Hike: This is a spectacular 3 km hike along the Niagara Escarpment. On this hike you will see two amazing waterfalls; Tew's Falls and Webster's Falls as they plunge down into Spencer Gorge. Continuing along the Bruce Trail you will come to the Dundas Peak, an outcropping of the Niagara Escarpment with incredible views of the western end of Lake Ontario and the valley town of Dundas.

Dundas Valley Hike: This hike follows the Bruce Trail as it winds through the Dundas Valley Conservation Area. Along the way the Bruce Trail passes through stream valleys, shady deciduous forests, old apple orchards, as it meanders above and below the Niagara Escarpment.

OUTDOOR ACTIVE:

Get Oriented!! An Introduction to Orienteering

Students are introduced to the basics of orienteering, including; parts of a compass, use of a compass to find direction, and map reading. Skills will be a put to the test as students use a map and compass to navigate their way through a designated area.

Snowshoe Trek

Learn the basics of snowshoeing. Find out which style of snowshoe you prefer - Traditional or Hi -Tech. Challenge yourself as we explore the great outdoors

WIDE GAMES:

These games make use of large forest and field areas, encouraging students to work together co-operatively & strategize. Choose from one of the following activities:

Capture the Flag

The goal is for each team to seek out and capture the flag of the other team while keeping their own flag safe.

Alpha Wolf

The Alpha is the lead animal in any pack. Teams attempt to locate the Alpha in order to improve their clan's strength. An adaptation of this game is to avoid capture of the Alpha and keep your own clan safe

Survival of the Fittest

A predator/prey role playing game. The objective - to survive! The challenge – to avoid predators, and other dangers in order to survive. The search is on for the basic necessities of life!

BOOKING REQUEST: 2016-2017

OUTDOOR ENVIRONMENTAL EDUCATION FIELD TRIPS

Complete Booking Request Form and submit by either Fax or Email to:

Beth Stormont, Education Program Manager, Hamilton Conservation Authority
 Fax: 905-627- 9722 Phone: 905-627-1233 Email: beth.stormont@conservationhamilton.ca

Note:

- Program Cost: **\$255** (plus HST) for a half-day, 2 hour program. Based on a maximum of 30 students per class.
- Additional per person fee in effect for classes exceeding the maximum class size
- A \$50 non-refundable deposit (payable by credit card) is required at the time of booking with the balance due two weeks prior to your booking date

SCHOOL			
SCHOOL ADDRESS			
TEACHER CONTACT & EMAIL			
SCHOOL PHONE & EXTENSION			
GRADE(S)			
NUMBER OF STUDENTS <i>Additional fees apply for classes exceeding the maximum class sizes.</i>			
MORNING SESSION: (10am-12 NOON) PROGRAM CHOICE <i>Please select a back-up program</i>	First Choice	Second Choice	
	<input type="text"/>	<input type="text"/>	
AFTERNOON SESSION: (12:30-2:30 pm) PROGRAM CHOICE <i>Please select a back-up program.</i>	First Choice	Second Choice	
	<input type="text"/>	<input type="text"/>	
DATE CHOICES <i>(Indicate your preferred dates)</i>	Date Choice #1	Date Choice #2	Date Choice #3
	<input type="text"/>	<input type="text"/>	<input type="text"/>
STUDENTS REQUIRING SPECIAL CONSIDERATION <i>Please let us know of any students requiring special consideration. We can then modify our programs accordingly.</i>			

• **PLEASE NOTE:**

- Cost is **\$255** (plus HST) per class for a half day, two hour program (maximum 30 students)
- Discounts available to schools booking more than two full days of programming.
- Cancellation Policy: A cancellation fee of \$150 will apply if the school cancels the trip less than three weeks (15 office days) prior to the scheduled field trip and does not re-schedule the date within the same school year
- Clothing: Program participants are expected to dress appropriately for the weather & outdoor conditions.

***For safety reasons sandals, moccasins or thin, flat shoes are not recommended.
Wear running shoes or hiking boots.***