SECONDARY SCHOOL FIELD TRIP GUIDE











Inspire Students Through Exploration with TRCA

With over 60 years of experience in environmental conservation and education, Toronto and Region Conservation (TRCA) aims to foster sustainable citizenship through our educational and community-based programming at our sites and facilities throughout the GTA. Our vision of Building The Living City^{*} is a new kind of community where human settlements can flourish forever as part of nature's beauty and diversity.

TRCA education provides hands-on learning opportunities for classes of all grades in relevant, authentic and local environments in the areas of nature, ecology and cultural heritage. By incorporating these experiences into education, students are encouraged to better understand environmental, sustainability and urban issues, as well as create a stronger sense of place.

Our environmental and educational professionals deliver exceptional curriculum-linked programming at our premier facilities and sites, and in combination with our vision for The Living City, this makes TRCA the ideal one-stop-shop for Ontario Educators' outdoor, environmental, geography, science and cultural heritage needs.

This guide contains a sample of TRCA's valuable and exciting secondary-level educational programs.



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GRADE AND CURRICULUM LINKS

Look for the following symbols next to the program descriptions.

Gr. 11-12 Biology

Gr. 12 Recreation and

Fitness Leadership

Gr. 11-12

Physical, World,

Issues and/or the

Environment and

Resource Management



Gr. 9 Geography



Gr. 9–10 Science



Gr. 9–10 **Food and Nutrition**



Gr. 9-12 **Healthy Active Living** Education



Gr. 11 World History Since 1900



Gr. 12 Canada: History, **Identity and Culture**





Gr. 12 Earth & Space



Level 1-5 ESL and/or ELD

Community-based action project



35 Community Volunteer Service Hours



Local, outdoor environment required





Science

FIELD TRIP PLANNING MADE EASY!

- **1** Use it! The sample itineraries on pages 18 and 25 give you an idea of how to maximize your field trip experience. We also have a helpful **regional map** on pages 16 and 17 to outline which TRCA facility is most convenient for you!
- 2 Choose it! You will find grade & curriculum links listed next to each program. When multiple grades are listed, this indicates that the program will be adapted to fit the specific needs and curriculum of your classroom. This guide presents only a sample of our most popular programs. Additional programming is available for all sites at www.trca-education.ca.
- 3 Plan it! Consult with your school calendar and use the planning tips and templates on pages 24 through 27 to help structure, organize and customize your field trip.
- **4 Book it!** Reach us at any of the points listed below to confirm your field trip!

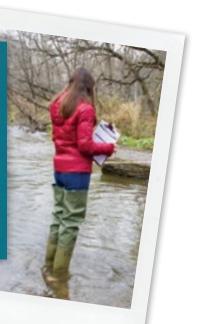
PHONE 416-667-6295 *Monday–Friday, 8:30am–4:30pm*

EMAIL customerservice@trca.ca

WEB www.trca-education.ca

BOOK ONLINE trca.ca/learning/day-visits

Cont in





Toronto and Region Conservation's (TRCA) educational facilities at Kortright Centre for Conservation and Black Creek Pioneer Village specialize in delivering exciting, curriculum-linked, outdoor, environmental, cultural and historical programs in authentic environments. TRCA is also proud to bring nature education right to your classroom through our Outreach Education programs. Tailored to meet the needs of your specific class, including secondary-level classes in Science, Canadian and World Studies, Health and Physical Education and Social Sciences and Humanities, teachers will find the perfect field trip to complement their classroom at any of our premier educational facilities.

Single-day field trips are available at:

BLACK CREEK PIONEER VILLAGE KORTRIGHT CENTRE FOR CONSERVATION TOMMY THOMPSON PARK YOUR SCHOOL (led by TRCA's Outreach Education Team)

ANY ON ANY OF A DESIGNATION AS ANY OF



SECONDARY TEACHER PROFESSIONAL DEVELOPMENT

TRCA's nature-based PD courses build skills that support curriculum links through experiential learning and proven teaching methods, in authentic environments.

Offerings include:

- VOICES FROM THE LAND: ART & CULTURE IN NATURE
- TEACHING & LEARNING WITH MONARCH BUTTERFLIES
- CREATING MONARCH HABITATS
- GLOBAL POSITIONING SYSTEMS (GPS) CERTIFICATION

Full-day or half-day workshops are offered at fully equipped Educational Facilities. Certification and/or licencing are available in appropriate areas, upon completion.

For information on programs, dates and locations, visit: www.trca-education.ca



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Toronto and Region for The Living City-

BLACK CREEK PIONEER VILLAGE

Bring lessons to life with authentic environments, ignite genuine curiosity through unique resources and challenge your students to become critically thoughtful and informed citizens with a visit to Black Creek Pioneer Village! Not just for elementary students, secondary-level programming is available for multiple courses and curriculum points including Canadian and World Studies, Health and Physical Education, Social Sciences and Humanities and English as a Second Language.

LIFE IN A NEW LAND Level 1 to 5 ESL and ELD groups

Students take a guided tour of the Village to discover the many challenges that faced our early settlers. Examine the economic and social realities of the day and learn about survival, how to start and grow a successful community and cope with conditions in a new land.



Duration: Half day (1.75 hours) Available: May to mid-November

GARDEN AND TABLE Grade 9 and 10

In this fully participatory program students make a complete meal in a heritage log home using a wood burning stove. Students also visit a nineteenth century workshop where they learn how to use a barn loom and engage in wood working. When all the work is done, students will then enjoy the fruits of their labour together.



Duration: Half day (1.75 hours) Available: September to June

SOCIETY AND CHANGE Grade 12

How has our society changed from Confederation to now? In this program students examine the many changes under way on the eve of confederation. Topics include: temperance, education, voting rights, social life and the place in society of religious and ethnic minorities, women and children.



Duration: Full day (1.75 hours) Available: May to mid-November

School Field Trips to

Tommy Thompson Park Toronto's Urban Wilderness

Custom programming for secondary classes at Toronto's largest waterfront habitat, just minutes from downtown.

Contact us at **416-667-6295** to find out more or visit **www.tommythompsonpark.ca**





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Tap into Spring

Sugarbush Maple Syrup Festival

- Guided, curriculum-linked Maple Syrup walks
- Discussions on and demonstrations of the tools, methods and techniques used in the production of maple syrup
- Pre and/or post-visit materials
- Tasty treats!



For more information visit www.MapleSyrupFest.com or call 416-667-6295

KORTRIGHT CENTRE FOR CONSERVATION

Secondary-level programming at Kortright Centre for Conservation provides students a unique opportunity to utilize technical resources while immersed in an authentic setting. An investigative approach supports a richer understanding of sustainable living and environmental stewardship, inviting students to connect with nature and better understand their relationship with and responsibility to the natural world around them.

9

LOW ROPES AND TEAM BUILDING Grade 9 to 12

Challenge your students to discover their personal strengths with this special, hands-on program. Participants develop group skills such as cooperation, communication, trust, problem solving, planning and leadership. Our facilitators are trained to provide students with an exciting and rewarding experience.



Duration: Half day (2 hours) or full day (4 hours) Available: Team Building: Year-round Low Ropes: April to November

RIVER SYSTEMS Grade 9 to 12

Focusing on safety and accuracy, students strap on hip waders to collect, record and calculate data, creating a profile of the Humber River. Maps and watershed experts are consulted to support an understanding of watersheds, followed by a hike to the stream where students measure various geographical and watershed features. The data collected by students is used to calculate average depth (m), current speed (m/sec), cross-sectional area (m2) and discharge of the river.



Duration: Half day (2 hours) Available: Late April to October

ARCHETYPE SUSTAINABLE HOUSE TOUR Grade 9 to 12

The Archetype Sustainable House is a Leadership in Energy and Environment Design (LEED) platinum-rated demonstration home, showcasing new and innovative, green technologies. Through an interactive, guided tour, students learn about sustainability, energy efficiency, resource use, water conservation, indoor air quality, solar and wind energy, geothermal heating and cooling, rain water harvesting and careers in the green energy technology industry.



Duration: Half day (2 hours) Available: Year-round

CLIMATE CHANGE Grade 9 to 12

Students discover the impact of their choices on the environment. This in-depth program includes an interactive, guided tour of the LEED Archetype Sustainable House where students learn about new and innovative green technologies, sustainable citizen practices and how they can apply those practices in their everyday life. Students are then introduced to the concepts of the greenhouse effect and natural cycles effected by climate change.



Duration: Half Day (2 hours) Available: Year-round

HABITATS ANALYSIS Grade 9 to 12

Using a variety of instruments, students conduct an analysis of two distinct natural habitats and study the biotic and abiotic elements of each ecosystem using thermometres, moisture meters, sling psychrometers, and anemometers. Through this study, students explore the concepts of interactions within the ecosystems, mutualism, amensalism, commensalisms and parasitism. Finally, a determination of the limiting factors that influence biotic populations and their distribution will be made.



Duration: Half day (2 hours) Available: April to mid-November

SUSTAINABLE ECOSYSTEMS Grade 9 to 12

Through hands-on learning activities and investigative techniques, students analyze and compare different human-altered and natural habitats. Through this comparison, students learn about the roles and relationships of biotic and abiotic elements of different ecosystem types and explore unique factors that impact the natural balance of each environment.



Duration: Half day (2 hours) Available: Mid- April to November

GPS MAPPING AND GEOCACHING Grade 9, 10, and 12

Students participate in the ultimate challenge to complete a geocaching activity around Kortright Centre's property by programming GPS units with appropriate waypoint coordinates. Interactive, outdoor exercises preface the challenge so as to introduce users to GPS functionality and allow them to practice and hone their skills.



Duration: Full day (4 hours) Available: Year-round

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Complete your Specialist High Skills Major Certifications with TRCA!

SHSM support available for all sectors:

- · Sector-specific certifications (over 25 certifications available!)
- I.C.E. training (TRCA's OCT-certified teachers will facilitate the training or co-facilitate with you!)
- Sector partnership for environment sector

Find a complete list at www.trca.on.ca/SHSM

OUTREACH EDUCATION

Let us bring nature education to you! Our passionate, knowledgeable instructors come prepared with all the required tools and materials to deliver relevant, hands-on learning experiences to your secondary students, through curriculum-linked programs and community-based action projects. Early registration is recommended as these in-class programs fill up quickly. All programs can be customized to fit your school schedule.

MARL

Water is arguably our most valuable and precious natural resource and the true amount of it that is used in the manufacturing of products is often unknown to consumers. Through discussion and the creation of a water trail, students learn about the water imbedded in energy use, the clothes they wear and the food they eat.



Duration: Half day (2 hours) Available: Year-round

MORAINE MATTERS Grade 9, 11 and 12

Secondary-level students learn about the Oak Ridges Moraine as a critical habitat, a diverse ecosystem and a valuable resource used for many human activities. This program can be delivered in the classroom or on a field trip (during the months of September and October). Please inquire for further details regarding the field trip extension.



Duration: **One class period** Available: **Year-round**

COPING WITH CLIMATE CHANGE Grade 10

This relevant program investigates the science and politics of climate change. Students play an exciting Cap and Trade game examining one way humans are trying to mitigate climate change through political and legal tools. Students are then challenged to discover actions they can take to help reduce the impact of global warming.



Duration: **One class period** Available: **Year-round**

CONSERVATION YOUTH CORPS PROGRAM Grade 10 to 12

Students who have completed grade 9 can apply to volunteer over the summer for one week of outdoor and environmental work for Toronto and Region Conservation. All transportation and equipment required is provided and upon completion of the week, students earn 35 volunteer hours! Applications are online at **www.trca.on.ca/cyc**.



Duration: **35 hours** Available: **Summer break**

and human history along our city's waterfront. Using specimens and a

WILD WATERFRONT Grade 11

dichotomous key, students will identify features of local fish species and learn what is being done to monitor, restore and protect them. An optional field trip extension is available, please inquire for details.

This in-depth program offers students the opportunity to learn about Toronto's changing land uses, the variety of wildlife species and the geological



Duration: Indoor – 1 class period; Outdoor – 4 hours Available: April to June

FOOD FOR THOUGHT: SUSTAINABLE AGRICULTURE Grade 11 and 12

Food for Thought is a topical program exploring the history of agriculture in Ontario and examines how our personal eating habits affect the natural environment. Students learn that knowledgeable consumers make informed decisions such as supporting local farmers and sustainable agricultural practices.



Duration: Half day (2 hours) Available: Year-round

AQUATIC PLANTS PROGRAM Grade 9 to 12, EcoTeams

This on-going, hands-on, immersive program involves growing plants from seeds at your school and then transplanting them at a local wetland, increasing students' appreciation and awareness of wetlands and ecosystems. Deeper knowledge and understanding of the value of these habitats, their important roles in the ecological health of our region and the necessity to maintain and restore them, is supported throughout the process.



Duration: Half day (2 hours) Available: May to June

YELLOW FISH ROAD PROGRAM [™] Grade 9 to 12, EcoTeams

Students get outdoors and become stewards of their own community by marking storm drains with yellow fish symbols and distributing educational leaflets to increase residents' awareness of storm water pollution. Prior to heading out, an indoor lesson and an interactive model help students learn how storm drains are linked to local water bodies and why they should care.



Duration: Half day (2 hours) Available: April to October DUFFERIN

SIMCOE

TRCA EDUCATION SITES

Glen Haffy Conservation Area

Albion Hills Field Centre and Conservation Area

CALEDON

PEEL

Heart Lake Conservation Area

BRAMPTON

YORK

KING

Kortright Centre for Conservation

VAUGHAN

Boyd Conservation Area

> Black Creek Pioneer Village

100

WE CAN COME AND SEE YOU!

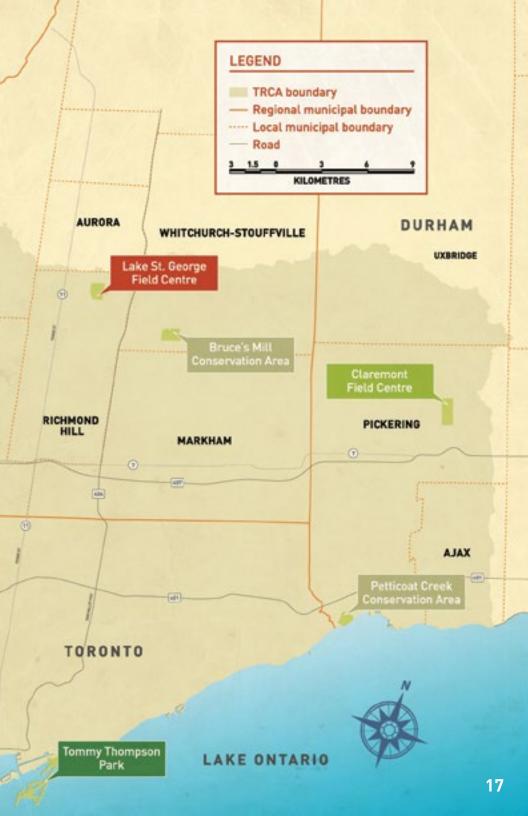
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Through our mobile Outreach Education programs we bring nature education to you. See pages 13 to 15 for more details.



HALTON

MISSISSAUGA



SAMPLE OVERNIGHT TRIP ITINERARY (for Lake St. George Field Centre)

Grade(s): 10

of students: 31

	ARRIVE				
DAY 1	MORNING PROGRAM	Check-in and meet centre staff			
	LUNCH				
	AFTERNOON PROGRAM	Group Dynamics			
	DINNER				
	EVENING PROGRAM	Group Orienteering			

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	BICEARTAGT	
2	MORNING PROGRAM	Plankton Lab
	LUNCH	
ΑY	AFTERNOON PROGRAM	Wetland Study
	DINNER	
	EVENING PROGRAM	Evening Hike

	BREAKFAST		
	MORNING PROGRAM Lake Ecology		
က	DEPART (if 3-day trip) or LUNCH (if 5-day trip)		
Aγ	AFTERNOON PROGRAM	Fish Management	
	DINNER		
	EVENING PROGRAM	Legends of Lake St. George	

	BREAKFAST	
	MORNING PROGRAM	Colour Map Orienteering
4	LUNCH	
ΑY	AFTERNOON PROGRAM	Introduction to GPS
	DINNER	
	EVENING PROGRAM	Campfire and Campfire Leadership

BREAKFAST

D	BREAKFAST			
	MORNING PROGRAM	Oak Ridges Moraine Study		
	LUNCH			
	DEPARI			

OVERNIGHT PROGRAMS

Toronto and Region Conservation's (TRCA) educational, overnight programming at Lake St. George offers an exciting and distinctive opportunity for students to learn and to grow, both as individuals and as a member of the class. With access to unique environmental and geographic resources such as a kettle lake, solar-powered pontoon boat and endless hiking and skiing trails, students are provided with the backdrop to build confidence, develop leadership skills and bond with one another. All excursions are curriculum-linked, customized to your groups' specific needs and delivered by our passionate and knowledgeable OCT-certified teachers.

Secondary-level overnight field trips are available at: LAKE ST. GEORGE FIELD CENTRE (Richmond Hill)

Additional residential opportunities are available at Albion Hills (Caledon) and Claremont (Pickering) Field Centres. Please visit **www.trca-education.ca** for more information.

Get ready to GET YOUR HANDS DIRTY!



Over a 17-day period, students develop knowledge and skills through the exploration of First Nations and Euro-Canadian histories. In this unique experiential course, students will:

- Earn a Grade 12 Interdisciplinary Studies Credit (IDC4U)
- Participate in all aspects of an actual excavation
- Learn through hands-on experience, classroom sessions and lectures under the instruction of certified teachers and archaeologists

Located at Claremont Field Centre, Claremont, Ontario.





LAKE ST. GEORGE FIELD CENTRE

Lake St. George provides an atmosphere reminiscent of cottage country, nestled within the region's limits. This certified Eco-Centre is the perfect environment for class bonding and offers unparalleled educational resources. Extend your students' learning and development through exciting programming with our OCT certified teachers in a setting they'll never forget!

SHORELINE VEGETATION SURVEY Grade 9 and 11

Students will be introduced to some basic wetland plant identification and will then have an opportunity to survey and map the littoral zone of Lake St. George from canoes. The importance of a natural shoreline to the health of the lake and the human impact on shoreline ecosystems will be examined. *Please note that students must pass a swim test prior to canoeing*.



Duration: Half day (2 hours) Available: Spring, Summer, Fall

WETLAND STUDY Grade 9 and 11

Students will learn about the four main types of wetlands that can be found in southern Ontario. They will be introduced to a wetland evaluation system that they will put into practice when they visit both natural and constructed wetlands on the property. Water samples may be collected for invertebrate examination and/or chemical testing. Emphasis will be placed on the importance and conservation of wetlands.



Duration: Half day (2 hours) Available: Spring, Summer, Fall

PLANKTON SURVEY Grade 9 to 11

In this introduction to aquatic microbiology, students will use plankton nets and other equipment to collect samples from the littoral zone of Lake St. George. After a review of plankton taxonomy and microscope basics, students will identify and sketch various phytoplankton and zooplankton obtained from the lake. Images captured using digital microscopes are used for further study in the classroom.



Duration: Half day (2 hours) Available: Spring, Summer, Fall

INTRODUCTION TO GPS Grade 9, 11 and 12

Students are introduced to the Global Positioning System (GPS) and its relation to topographic maps and compasses, emphasizing the UTM coordinate system. Practical use of the GPS unit is provided through geocaching. Digital files of coordinates are available upon request for further studies back in the classroom. *Extend this program to include a National GreenCheck GPS; inquire when booking.*



Duration: Half day (2 hours) Available: Year-round

LAKE ECOLOGY Grade 9 to 12

Students are first acquainted with the glacial formation of kettle lakes like Lake St. George before touring the lake aboard the solar-powered electric pontoon boat. Water samples and data will be collected using a variety of equipment such as digital meters and Hach chemistry kits. Students will then analyze data, as well as graph and interpret results, to determine the health of Lake St. George.



Duration: Half day (2 hours) Available: Spring, Summer, Fall

FISH MANAGEMENT Grade 9 to 12

This program involves catching fish near the shore by setting and hauling a seine net. Students sketch and identify the species present, then collect data such as weight, length, relative age, and overall health. Current issues in fish management such as invasive species and their impacts on fisheries is explored through guided discussion. The program culminates with students gently returning their catch to the lake.



Duration: Half day (2 hours) Available: Spring, Summer, Fall

INTRODUCTION TO CANOEING Grade 9 to 12

This program provides an introduction to lake-water canoeing including the use of proper safety equipment, canoe entry and exit, and basic strokes. Students will practice their skills as they paddle on Lake St. George with ORCKA-trained instructors and NLS-certified lifeguards. *Please note that students must pass a swim test prior to canoeing.*



Duration: Half day (2 hours) Available: Spring, Summer, Fall

OAK RIDGES MORAINE STUDY Grade 9 to 12

Students are introduced to the formation of the Oak Ridges Moraine using a cross-sectional groundwater model, demonstrating the importance of the moraine to the quality of groundwater. Students will then hike the Lake St. George and adjoining property to map the moraine's features or test water quality using Hach chemistry kits. *Extend this program to include a bus tour highlighting the unique features and habitats on the Oak Ridges Moraine.*



Duration: Half day (2 hrs) or full day (4 hrs) Available: Year-round

REIMAGINING BOLTON CAMP

For the community, by the community



Imagine a town square where you can shop artisan markets, practice yoga, enjoy a theatre performance, take a photography class, eat a locally grown dinner with a friend or catch a movie under the stars.

Now imagine all that in your backyard. That is Bolton Camp.

COMING SOON!

f y of follow us @boltoncampproject trca.ca/BoltonCamp







DAY TRIP PLANNING TEMPLATE

Grade(s):

of students:

ARRIVE MORNING PROGRAM

LUNCH. LITTER-LESS PACKED LUNCHES ARE ENCOURAGED.

AFTERNOON PROGRAM

DEPART

SAMPLE DAY TRIP ITINERARY (for Kortright Centre for Conservation)

Grade(s): 10

of students: 74

0	ARRIVE		
L L L L L	MORNING PROGRAM	Climate Change	
ΙΑΥ Τ	LUNCH. LITTER-LESS PACKED LUNCHES ARE ENCOURAGED.		
	AFTERNOON PROGRAM	Archetype House Tour	
	DEPART		

HELPFUL HINTS

- **Inclusivity and equity are integral:** Field Centres can accommodate students with mobility concerns. Share your needs with us!
- Payments can be a hassle, but with TRCA you control the process (payments, collections, payment plans etc.) and **only two simple payments are required: deposit and balance.**
- Invite another class, or even another grade, to **help reduce the per student cost of expenses like transportation**. Visitor Services can assist you with booking different programs for each class or grade.

PLANNING AN OVERNIGHT TRIP

OVERNIGHT PLANNING CHECKLIST

Coordinate school schedule with proposed overnight excursion dates.

Make deposits with TRCA to secure preferred trip dates.

Schedule a site visit or phone session with an Education Supervisor to review and select programs.

Book your transportation.

Communicate with Parents:

- Price Date(s) Safety/ Permission Forms
- Packing list/ expectations

Complete dorm assignments, work groups and any other necessary forms.

Confirm participant numbers with TRCA and make final payment.

ENJOY YOUR TRIP!

TEACHER RESOURCES

OVERNIGHT PLANNING TEMPLATE For 3-day or 5-day trip

Grade(s):

of students:

	ARRIVE	ARRIVE		
λAC	MORNING PROGRAM			
	LUNCH			
	AFTERNOON PROGRAM			
	DINNER			
	EVENING PROGRAM			

BREAKFAST

	MORNING PROGRAM	
2	LUNCH	
A	AFTERNOON PROGRAM	
	DINNER	
	EVENING PROGRAM	

	BREAKFAST	
	MORNING PROGRAM	
e	DEPART (if 3-day trip) or LUNCH	(if 5-day trip)
Aγ	AFTERNOON PROGRAM	
Δ	DINNER	
	EVENING PROGRAM	

BREAKFAST

	MORNING PROGRAM	
4	LUNCH	
Aγ	AFTERNOON PROGRAM	
	DINNER	
	EVENING PROGRAM	

BREAKFAST

	MORNING PROGRAM	
LUNCH		
	DEPART	

HOW TO REACH US

for inquiries, bookings and more information

PHONE

416-667-6295, follow prompts

WEB

www.trca-education.ca

EMAIL

customerservice@trca.ca

BOOKING REQUESTS for Watershed on Wheels and Outreach Education:

trca.ca/learning/outreach-education



Ontario EcoSchools...

Outdoor experiential learning and professional development supports the Curriculum and Teamwork & Leadership sections of your Ontario EcoSchools certification application.

Connect with your EcoTeam Lead to see how **YOU** and **YOUR CLASS** can contribute to your school's application.

For more information visit www.ontarioecoschools.org

OUR EDUCATION CENTRES

Albion Hills Field Centre Caledon, Ontario

Black Creek Pioneer Village Toronto, Ontario

Bruce's Mill Conservation Area Stouffville, Ontario

Claremont Field Centre Claremont, Ontario

Kortright Centre for Conservation Vaughan, Ontario

Lake St. George Field Centre Richmond Hill, Ontario

Outreach Education Your School

Tommy Thompson Park Toronto, Ontario



www.trca-education.ca