

Urban Ecosystems

Teacher Information



Photo: Rachel Green

Lost Lagoon is an urban treasure trove! Learn about the species that call this area of Stanley Park home and their interactions with the downtown core.

How do human and environmental systems interconnect in Vancouver? Dive into what makes a healthy urban ecosystem and how biodiversity and climate change affect Stanley Park. This fun and informational program is a great for any curious high schooler.

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Urban Ecosystems Checklist

To Do Before

- Read this Teacher Information Package carefully
- Arrange transportation to arrive 15 minutes before your program start time
- Send Essential Parent/Guardian Information home (Page 7)
- Review Park Etiquette with students (Page 5)
- Review "What to Wear" with students (Page 7)
- Send payment a minimum of two weeks prior to your program

Curriculum Connections

Urban Ecosystems is a place-based program that directly relates to the high school science curricula. Below, you'll find some Big Ideas and Curricular Competencies that will be addressed. You may contact us for a more detailed list for your grade if you wish.

Big Ideas:

Grade 8

- Life processes are performed at the cellular level

Grade 9

- The biosphere, geosphere, hydrosphere, and atmosphere are interconnected, as matter cycles and energy flows through them.

Grade 10

- DNA is the basis for the diversity of living things.
- Energy is conserved, and its transformation can affect living things and the environment.

Grade 11

Earth Sciences

- The transfer of energy through the atmosphere creates weather, and this transfer is affected by climate change.

Environmental Science

- Complex roles and relationships contribute to diversity of ecosystems. Changing ecosystems are maintained by natural processes.
- Human practices affect the sustainability of ecosystems.
- Humans can play a role in stewardship and restoration of ecosystems.

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Curriculum Connections

Big Ideas:

Grade 11 continued

Life Sciences

- Organisms are grouped based on common characteristics.

Science for Citizens

- Scientific understanding enables humans to respond and adapt to changes locally and globally.

Grade 12

Environmental Science

- Human actions affect the quality of water and its ability to sustain life.

Human activities cause changes in the global climate system.

- Living sustainably supports the well-being of self, community, and Earth.

Specialized Sciences

- Biodiversity is dependent on the complex interactions and processes between biotic and abiotic factors.
- Climate change impacts biodiversity and ecosystem health.

Curricular Competencies:

Grade 8-12

- Analyze cause-and-effect relationships
- Consider the changes in knowledge over time as tools and technologies have developed
- Contribute to care for self, others, community, and world through individual or collaborative approaches
- Contribute to finding solutions to problems at a local and/or global level through inquiry
- Demonstrate a sustained intellectual curiosity about a scientific topic or problem of personal, local, or global interest
- Experience and interpret the local environment
- Express and reflect on a variety of experiences, perspectives, and worldviews through place
- Make observations aimed at identifying their own questions, including increasingly abstract and/or complex ones, about the natural world
- Transfer and apply learning to new situations
- Use scientific understandings to identify relationships and draw conclusions



Essential Teacher Information

Payment

Payment not made through our booking system is due a minimum of two weeks prior to your program date. Payment by cheque can be sent to the address on Page 1. Please make cheques out to the Stanley Park Ecology Society and mark them with your invoice number, school name and program date. A \$25 fee will be charged for all cheques returned NSF.

Cancellation Policy

Cancellations made before 4 weeks from the booking date will receive a full refund, minus a \$15 administrative fee. No refunds will be issued for cancellations within 4 weeks of program dates. Participants whose programs are cancelled due to weather will receive a credit refund.

Be Prepared

Our programs run rain or shine and are held entirely outside. Students will be learning through hands-on activities, getting a bit dirty and possibly wet (especially shoes). Please review the enclosed 'what to wear' list with your students prior to their park visit (see page 7). Due to the variable walking terrain, appropriate footwear is required.

Adult Assistance

We require the assistance of a minimum of two and a maximum of four adults. This excludes all one-on-one adult assistance. These adults are invited to participate in all activities and asked to help maintain discipline in the group. Please ensure adults turn off cell phones and refrain from having distracting conversations.

Arriving for the Program

Please arrive 15 minutes before the program time in order to have a washroom break, snacks and division into groups. Programs do not stop for washroom and snack breaks as there is no access to facilities during the program. SPES educators will greet you at the meeting location at the designated start time. If you are running late, please call the School Programs cell phone at 236-867-1564 to let us know.

Continued on the following page



Essential Teacher Information

Transportation and Meeting Site

The meeting site for this program is above the Nature House on Lost Lagoon (see map on Page 6). This site is accessed by the #19 Stanley Park public bus, school buses, or private vehicles.

Photography

We recognize that photos are a great way for classes to document their fieldtrips, and so we allow photos during our programs; however it is our policy at SPES School Programs that no videos are to be taken of/during our programs.

Pay Parking

Pay parking is in effect at all times in Stanley Park. The rates from April 1st - September 30th are \$4.25 for 1 hour or \$15.25 per day per vehicle and from October 1st - March 31st are \$3.25 for 1 hour or \$8.25 per day. Rates are set by the Park Board and are subject to change. Cash and credit cards are accepted at the ticket machines.

Inclement Weather

Programs run rain or shine in Stanley Park, however during dangerous weather we occasionally have to cancel programs for safety reasons. Extreme weather events can be dangerous in the park due to falling trees, slippery conditions, etc. Government-issued weather advisories are also monitored for important recommendations. A full refund will be issued if we are required to cancel a program due to inclement weather.



Park Etiquette for Students

Stanley Park is a protected area that is home to many amazing living and nonliving things. We are lucky to be able to visit this area, but we must remember that Stanley Park is where these living things make their homes. As visitors to these organisms' homes we should tread carefully and act with respect.

To ensure the best possible experience for students and the Park's plants and animals, please take the time to review these guidelines with students before your Park visit.

1. Bring an open mind and your curiosity

In our outdoor classroom, we'll engage all of our senses while exploring nature. There will be times for listening to instructions, when students will be invited to raise their hands and ask questions. There will also be times when students are given challenges to complete while exploring or sharing stories with their friends.

2. Take only photos and memories.

Every single leaf, flower, shell, stone, and berry is an important part of the web of life in the Park. If we remove items from Stanley Park, we are removing potential shelter and food for living things. Students should leave everything as they find it.

3. Leave only soft footprints (not garbage).

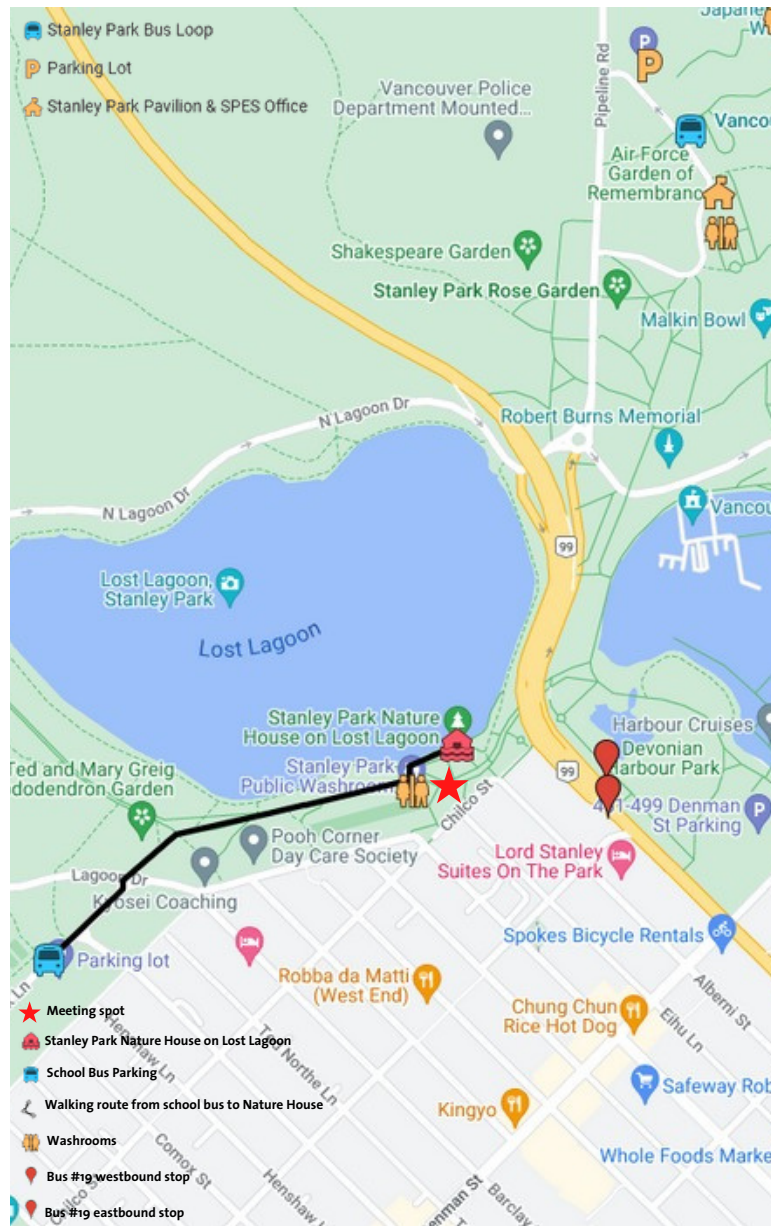
The animals of the Park have all the food they need. Human food can make them sick, create dependence on the humans, and lead to aggressive behaviour or overpopulation. Please ask students to ensure all garbage is disposed of properly. Even small crumbs shouldn't be left for animals to find.

4. Explore with respect.

Let us lead your adventure on and off trail in the Park; students should not be ahead of their leader. There will be opportunities to gently touch safe plants in the Park. You might be hugging trees, smelling leaves, or just moving them to get a look from a different angle. However, birds and mammals like raccoons and squirrels – while cute and often accustomed to humans – should not be touched. These are still wild animals and we want them to stay that way.

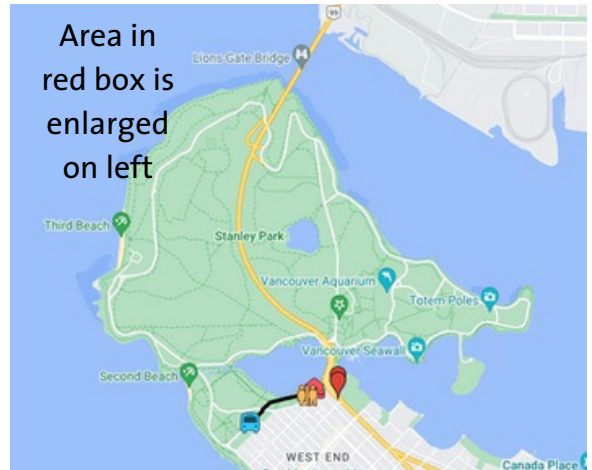


Map and Directions



For interactive directions, this map is also available at

<http://ow.ly/pUTTS>



Driving Directions from Vancouver

- Travel northwest on Alberni St.
- Turn left at Denman St.
- Turn right on Beach Ave
- Take a slight right on Park Ln.
- The parking lot will be located on your right.
- Walk northeast along Park Ln, follow path through the Rhododendron Gardens and along lost lagoon until you get to the washrooms near the Nature House.

Public Transit Directions

- Take the #19 bus westbound along Georgia Street and get off before you enter the park at Gilford Street.
- Walk towards Stanley Park, turn left under the covered walkway and follow the path towards the washrooms. SPES educators will meet you there.



Essential Parent/Guardian Information

Field Trip Date: _____

Your child will be visiting Stanley Park for the Urban Ecosystems program led by the Stanley Park Ecology Society.

During the *Urban Ecosystems* program your teen will get an introduction to nature in Stanley Park's forested trails, where they will use their senses to discover secrets of the forest and its plants and animals! **The entire program will be held outside, rain or shine.**

To help make this an exciting and memorable experience for your teen, we strongly recommend that they wear the following items listed below. It is always colder in the forest, even on a sunny day. Your teen should be prepared to get a bit dirty and possibly wet, especially their shoes! If it is raining on the day of the program, it is especially important to dress well to keep the field trip fun.

What to wear and bring to the *Urban Ecosystems* program

- T-shirt, long sleeved shirt, and sweater.
- Long pants - no dresses please!
- Good walking shoes that you don't mind getting wet or muddy. NO flip flops or sandals!
- If sunny: sunscreen and hat.
- If raining: rain pants and waterproof jacket with hood or hat.
- If cold: warm gloves and hat.
- Refillable water bottle.
- Please, no umbrellas! In a large group, umbrellas can block the view for your teen's classmates and can accidentally poke someone in the eye.
- Avoid clothes made of cotton on rainy days. Cotton can be very cold when wet. Wear wool or synthetic clothes whenever possible.

In addition to school programs, the Stanley Park Ecology Society also offers fun, interactive forest and wildlife walks as well as online programs for families and adults.

Visit us at www.stanleyparkecology.ca for more information about the work of the Stanley Park Ecology Society and becoming a member.

