

Invasive Species Educational Activities

June 2015

INTERMEDIATE: Grades 6-8 / Ages 11-14



This guide contains a range of activities suitable for students in grades 6-8, Ages 11-14 but can be adapted to suit almost any age and audience. Activities are designed to engage students and help them investigate invasive species and associated impacts in BC and explore ways to help prevent further introduction and spread. Activities can be used by teachers in formal school programs as well as by leaders in informal youth groups, camps and recreation programs.

Activities are provided by the Invasive Species Council of BC, Regional Committees, the Girl Guides of Canada, WeedsBC, and the Royal BC Museum.

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Intermediate Activities: Grades 6-8 / Ages 11-14

BC Ministry Prescribed Learning outcomes

Science

Grade 6

- analyze how different organisms adapt to their environments

Grade 7

- analyze the roles of organisms as part of interconnected food webs, populations, communities, and ecosystems
- assess survival needs and interactions between organisms and the environment
- assess the requirements for sustaining healthy local ecosystems
- evaluate human impacts on local ecosystems
- compare common animals
- compare local plants
- describe features of local plants and animals (e.g., color, shape, size, texture)
- use the five senses to make observations
- describe features of their immediate environment

List of General Activities

1. Weedy Scavenger Hunt

(Primary / Elementary / Intermediate Activity: Ages 5 – 12)

Also a good “buddy” class activity. Students go on a scavenger hunt to look for things specifically related to invasive plants.



Source: ISCBC & Oregon Natural Resources Education Program

Websites: http://bcinvasives.ca/documents/Education_Teacher_Resources_FINAL_06-02-2014.pdf / http://weedinvason.org/pdfs/Facts/weedy_scavenger_hunt.pdf

2. From Here, from Away

(Elementary / Intermediate level activity: Ages 8-15)

An Active Game about Native and Non-Native Species. Students engage in an active running game responding to their understanding of native (“from here”) and non-native (“from away”) species.

Source: Education Activities & teacher Resources (ISCBC)

Website: http://bcinvasives.ca/documents/Education_Teacher_Resources_FINAL_06-02-2014.pdf

3. Invasive Plant Field Guide

(Elementary / Intermediate grades: Ages 10-15)

An exploration and research activity where students find and research invasive plants in their region, and create a class field guide

Source: Education Activities & teacher Resources (ISCBC)

Website: http://bcinvasives.ca/documents/Education_Teacher_Resources_FINAL_06-02-2014.pdf

4. Native/Non-native Plant Collage

(Primary / Elementary / Intermediate grades: Ages 6-14)

A fun art activity where students create collages of native and non-native plants.

Source: Education Activities & teacher Resources (ISCBC)

Website: http://bcinvasives.ca/documents/Education_Teacher_Resources_FINAL_06-02-2014.pdf

5. Invasive Plant Photo Scavenger Hunt

(Intermediate/Secondary Grades: Ages 12 – 17)

Students go on a field trip to look for and photograph native and invasive plants to be used in designing a field guide or PowerPoint slideshow.

Source: Education Activities & teacher Resources (ISCBC)

Website: http://bcinvasives.ca/documents/Education_Teacher_Resources_FINAL_06-02-2014.pdf

6. “Wanted” Poster: Invasive Plants!

(Elementary / Intermediate / Secondary grades: Ages 10 – 16)

A fun art and research activity where students study an invasive plant of BC and design a creative “Wanted” poster for the plant.

Source: Education Activities & teacher Resources (ISCBC)

Website: http://bcinvasives.ca/documents/Education_Teacher_Resources_FINAL_06-02-2014.pdf

7. Aliens in the Classroom

(Elementary / Intermediate / Secondary grades: Ages 10 –

16) This learning object collection is linked to grades 4, 7, 10,

11 and 12 curricula, but can be adapted to grades beyond

this range and for informal learning situations outside the

classroom setting. The collection consists of five learning

objects including an interactive map, images, video and

classroom activities about introduced plant and animal species

in British Columbia.

Source: Royal BC Museum

Website: <http://alienspecies.royalbcmuseum.bc.ca/eng/content/aliens-classroom>



8. **Invasives: Plants on the Move**

(Primary –Secondary Activities: Ages 4-19)

This curriculum is a U.S. - based, on-line resource, adaptable to the BC Prescribed Learning Outcomes. It is designed for teachers who want to integrate the topic of invasive weeds in the classroom, develop weed awareness and provide students in grades K to 12 with an understanding of the serious problem of invasive weeds. Includes seven lesson units and incorporates a Student Weed Journal and Weed Warrior Worksheets.

Source: Oregon Natural Resources Education Program

Source: Oregon Natural Resources Education Program (ONREP)

Websites: <http://www.weedinvasion.org/> &
http://www.weedinvasion.org/pdfs/extras/about/about_curriculum.pdf



Invasives in the Classroom: A Practical Teachers Guide for Intermediate Levels

This guide offers a selection of learning units, background information, videos and activities to teach students about invasive species. Learning units are designed to complement the Life Sciences Integrated Resource Plans for BC. The guide is divided into Units and associated activities. See Table Below:

Unit #	Learning Unit Title	Activity Type	Activity
1	Introduction to Invasive Plants	PowerPoint	What is an Invasive Plant
		PowerPoint	Invasive or Not
		Engagement	Know - Wonder - Learn
2	Aboriginal Use of Native Plants & Impacts of Invasive Plants	Presentation	Traditional Use of Native Plants
		Game	Invasive Plant Bingo
		Field Day	Plant Press
3	Identifying Invasive Plants	PowerPoint	Identifying Invasive Plants
		Game	Invasive Plant Bingo
4	Vectors of Spread	PowerPoint	What is an Invasive Plant
		Lab	Multiple Topics
5	What Makes a Species Invasive?	Game	Invasive Plant Dress Up
6	Ecosystem Webs	Activity-Game	Ecosystem Webs
7	Where Do Invasive Species Come From?	Research	Poster Making
		Game	Invasive Plant Dress Up
8	Local Invasive Plants	PowerPoint	What is an Invasive Plant
		PowerPoint	Invasive or Not
		Engagement	Know - Wonder - Learn
		Game	Invasive Plant Bingo
9	What You Can Do to Help	Lab	Vectors of Spread
		Game	Invasive Plant Dress Up
		Engagement	Persuasive Arguments

Non-formal Education Activities

Intermediate Activities: Ages 11-14 (Guides and Pathfinders)

Source: Alien Invaders Challenge

Website: <http://bc-girlguides.org/web/Documents/BC/program/AlienInvaders.pdf>

Note: these activities, although developed for Girl Guides, can also be adapted for all elementary grade kids aged 11-14. Older kids to adults can also participate by helping younger kids in these activities.

Scavenger Hunts

1. **Biodiversity ABC Scavenger Hunt:** Practice observation skills and get to know your local “natural” neighbourhood or park.
2. **Weedy Scavenger Hunt:** This is a great bridging activity, to help younger girls with the scavenger hunt.
3. **Invasive Plant Photo Scavenger Hunt:** Using a camera to capture invasive plants in the field.

Active Games

1. **From Here, From Away:** Activity that helps kids understand the difference between introduced and native species.
2. **Invader Tag:** By tagging others, kids take turns playing invasive plants that spread.
3. **Nests:** Another form of tag wherein Kids playing invasive birds (i.e. European starlings) try to capture the nests of others playing native Lewis Woodpeckers.
4. **Algae, New Zealand Mud Snail, Trout:** This activity is similar to Rock, Paper, Scissors
5. **Create You Own Game:** Kids research invasive plants, insects and animals found in their area, and design an active game for others to play. Objectives include learning something about invasive species and their impacts. Game can be published by GGC.
6. **Life Size Board Game:** In groups of 2-3, kids design and create a life-size board game to model the effects of invasive plant species in a plant community. This board game can then be used to teach younger kids about Invasive Species.

Creative Activities

1. **No Hitchhikers! Aquatic Invasive Species Role Play:** Kids role-play the part of either lake inhabitants or the aquatic exotics that displace native species. Props are used to help demonstrate how aquatic exotic species enter a lake or river system, the negative effect they have on native species and things people can do to stop the spread of aquatic species.
2. **Invasive Plant Dress up & Fashion Show:** Kids create their own make believe species, using dress-up clothes and accessories (e.g. hats or gloves). They put on an Invasive Species fashion show to highlight some of the characteristics that make a plant invasive.

3. **Invader Creator:** kids brainstorm about the things that make a plant species invasive and then create their own species using crafts.
4. **Invader Puppet Show:** Kids create their own invasive species puppets and develop a narrative/dialogue for the puppets to show how an invasive species is successful (they reproduce rapidly, are aggressive and can out-compete the native species for resources (e.g. water, food, sunlight, etc.)).
5. **Make-Believe Weeds:** Kids use scientific terms and concepts to brainstorm and create imaginary or make-believe invasive plants. Bring in concepts of plant parts, habitats, adaptations and invasive characteristics that help these plants thrive and spread.
6. **Invasive Species Sing-a-long:** Kids write a song, poem, or rap song about invasive species!
7. **“Alien Invasion” Invasive Species Interview:** Kids work in groups each taking turns to act as a news reporter, invasive species and native species. They create a skit to act out a live news hour report showcasing the interview.
8. **Invasive Bake Off Competition:** Kids create a pie or similar with edible invasive plants (i.e. Himalayan Blackberries).

Discovery Activities

1. **Native / Non-Native Plant Collage:** Kids create a collage of pictures/drawings of native and non-native plants found in their region. Throughout this activity, kids discuss the meaning of “native” and “non-native” and discuss invasive and non-invasive species.
2. **Native Plants: Know Your Neighbours:** Kids practice observation skills and get to know their local, “natural” neighbourhood or park.
3. **Invasive Plant Field Guide Page:** Kids help each other create a field guide for invasive plants in their area and discuss the difference between native, introduced and invasive plants. Kids also provide examples of what to do if you find one of these plants.
4. **Invasive Plant “Wanted” Poster:** Kids discuss main distinguishing features of a locally selected invasive plant and make a poster of it.
5. **Invasive Animals: Brochure:** Kids develop a brochure to highlight an invasive animal species that is present in their region or has the potential to invade. They research and list public outreach and awareness activities that could help bring attention to this species: e.g. posters, door-to-door brochure campaigns, radio announcements, mall or special event booths, Earth Day events, campsite visits, park interpretive programs, beach and boat launch visits, pet store and aquarium visits.
6. **Invasive Species Community Fair / Presentation:** Kids Plan and carry out an “Invasive Species Fair”. They either develop some displays and a presentation to showcase regionally invasive species or, showcase by giving a presentation to a garden club/ community group / school group / municipal government in their community.

7. **Invasive Species: Careers:** Kids create an interview sheet that asks specific questions of an invasive species employee working for a local agency or site.

Field Trips / Service projects

1. **Site Visit: Invasive & Native Species:** Kids visit a local garden, plant nursery, garden center, park or botanical garden and explore plants for sale or are growing. Kids discuss invasive plants and their characteristics and purchase some native or non-invasive seeds to grow.
2. **Invasive Species Community Weed Pull:** Kids get involved in a community weed pull.
3. **Field Trip to an International Airport:** Kids and leaders go on a tour with a Canadian Food Inspection Agency official. Kids ask questions about how officials prevent travellers from transporting plants and animals illegally in and out of the country.

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Please contact me any time if you have questions or need more information – I'd love to hear from you and learn more about the work you are involved with!

Resource links

- Invasive Species Council of BC: <http://www.bcinvasives.ca>
- Canadian Wildlife Federation: Encyclopedia of Invasives; activities: <http://cwf-fcf.org/en/discover-wildlife/resources/>
- Invasives on the Move: K – 12 curriculum; Oregon Natural Resources Education Program (ONREP) <http://www.weedinvasion.org>
- Making Waves Protecting Ontario's Aquatic Habitat: <http://www.invadingspecies.com>
- Grade 4 curriculum kit, Grade 6: Biodiversity Challenge!, Compendium of outreach resources:
- Center for Invasive Species Management: Montana – good list of resources: <http://www.weedcenter.org/education/k-12.html>
- Citizen Science Handbook: Invaders of Texas <http://www.texasinvasives.org/invaders/toolkit.php>
- Biodiversity Education & Awareness Network: <http://biodiversityeducation.ca/formal/>
- Community Stewardship Projects on Exotic Aquatic Species: Booklet of activities and community stewardship projects Sea Grant <http://www.iisgcp.org/edu/cr/index.html>.
- ESCAPE: Exotic Species Compendium of Activities to Protect the Ecosystem <http://www.iisgcp.org/edu/escape/index.html>