



# Powerful Plants Toolkit

A decorative illustration of a green plant with long, thin leaves and two seed pods on the left side, and a patch of green grass at the bottom. An orange horizontal bar is positioned behind the year "2022".

2022



# TABLE OF CONTENTS



## 1. Introduction:

- How to Use this Toolkit
- Why Plants?
- Indigenous Cultural Safety

## 3. Icebreaker Games

## 4. Explorer Day Option 1a:

- Observing a Landscape Impacted by Invasive Plants

## 5. Explorer Day 1a Observations

## 6. Explorer Day Option 1b

- Invasive Species Pull

## 7. Explorer Day 1b Observations

## 8. Explorer Day Option 2

- Storytelling in Nature

## 9. Explorer Day Option 3

- Plant Walk

## 10. Sharing Circle Questions


## 11. Additional Resources



**See also:** Plant ID Cards & Cultural Safety Guidelines (Separate from this toolkit)

## Introduction

### Healing with plants



At NatureKids BC we believe in the **power of plants to heal** the land and ourselves. This toolkit will provide you with many different ways you and your club members can learn more about how this is possible!

### Inspiring youth

We believe it is vital for youth to engage with plants in healthy and positive ways. These experiences help them to become good **stewards of our shared planet**.



THANK  
you

The work you are a part of is fundamental to building a more ecologically sound and socially just future. We **thank you** for it!

## How to use this toolkit


### Educational Resources

You are welcome to use all or some of the resources in this toolkit, depending on your needs. **Everything in this toolkit is meant to make things easier for you as a club leader so have fun with it!**

### Explorer Days

Choose an event that will fit best for your context and needs. We can help connect you to a nature mentor or community organization for a stewardship event. If you want to adapt or change anything, we are here to support you!


### Interactive Elements



Some of the resources in this toolkit are interactive. These are **additional tools for you to use as you need them**. The purpose is to give you optional ways to engage with your members. For example, you could choose to have older kids fill out the questions on the observation sheets. You are not required to send these answers back to NatureKids staff, although you are welcome to. We love hearing from you!

### Indigenous Cultural Safety

Please refer to the included Cultural Safety Guidelines if you are choosing to work with an Indigenous Nation, community and/or organization. As always, reach out to us if you need support!



## Introduction: Why Plants?

### Plants & Ecology

The field of **ecology** explores the essential connections between plants, animals, and all living beings. Ecology helps us understand our relationships to the natural world, as well as how to live more sustainably on planet Earth (ESA, 2022).

Youth are the **future leaders** and shapers of our shared planet, and it is vital that we encourage them to recognize their **inherent connections** to nature and how they are a part of it, rather than separate from it!

### Plants & Climate Change

**Native plants**, in particular, have evolved to coexist with their ecosystems. These plants provide habitat and nutrients for many species that are specifically **adapted** to them. They are also vital to the **well-being** of local communities that rely on them.

When we heal the land by removing **invasive species** and restoring native habitats, we restore **biodiversity** that is needed to combat droughts, fires, and other extreme weather conditions.

Plants are also excellent **indicators** of changing conditions and can provide us with **observable measures** that help us make necessary changes (Little Green Thumbs, 2022).

### Plants, Social Justice, and Youth



By helping children and youth engage with plants in a way that recognizes social relationships and power dynamics, we are teaching them to be more **mindful participants and active citizens**.

This helps them to recognize their **responsibilities** to each other and the natural world.



### Introduction Sources

- 1 The Ecological Society of America (ESA). (2022). What is Ecology? What does ecology have to do with me?
- 2 Little Green Thumbs. (2022). Plants People and Climate Change Teachers Guide.



# ICE BREAKERS

1. Have everyone find a plant nearby that they like (groups are ok) and **introduce yourselves to the plants!**

Participants can start with their names, where they're from, and something interesting about themselves.

Explain to the group that introducing ourselves is a good way to start a relationship with plants and with a place.  
It's just like meeting a new friend!

2. Play a game of **plant-themed I spy** and give some hints! Start by letting participants know that you will be choosing a nearby plant. This is a good time to teach participants that things they might not consider as plants count (e.g. trees and mosses).

## How to play:

- 1) Choose a plant (don't share it with the group).
- 2) Say "I spy with my little eye something that is... (use a descriptor such as colour, texture, size, etc.)
- 3) Participants then guess which plant you are talking about!



## Question ideas

If you don't have a lot of time, you can just ask the group a question or two to start the event off!

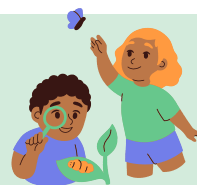


1. What is your favourite plant and why?
2. Would you rather go camping or take a trip to a city and why?



3. If you could be any plant, what would you be and where would you live?
4. What is your favourite season and why?





# Explorer Day Option 1a

**Event:** Observing a Landscape Impacted by Invasive Plants

**Volunteer lead:**

**Subject:** Powerful plants

**Ages:** 5-12

**Club location:**

**Event location:**

**Date of event:**

## Lesson focus and goals:

- Observing an ecosystem that has been impacted by invasive species.
- Observing the difference between native and invasive species.
- Healing the land. What are our responsibilities? What can we do?
- If possible, consider returning to the same site to pull some invasive plants (see option 1b).

## Materials needed:

- A pen and a copy of this page. Clipboards.
- The observation checklist and the sharing circle questions if you plan to use them.
- *Fall 2022 NatureWILD* magazine, for definitions about invasive vs. native species.
- "Invasive Species 101" links found on pg. 11.
- Native Plant ID cards included in this kit.

## Learning objectives:

- What are native and invasive species?
- What are the effects of invasive species?
- Why are native species important?
  - E.g. biodiversity and habitat.
- Learning about plants, culture, and local Indigenous perspectives.

## Activity:

### Pre -event:

- Think about working with a community partner to help deliver this Explorer Day. They can provide nature mentor expertise, access to a site and more. We can help find you a local connection.
  - Local stewardship organizations, community gardens or city park staff that focus on native plant restoration and invasive species removal are great places to start.
  - Working with an Indigenous community member and/or organization is also a great way to build local connections (see included introduction and cultural safety guidelines).
- Work with your community partner(s) to identify a good location for observing the impact of invasive species. This location should be safe for all ages and easily accessible for a diverse array of physical needs.
- Send out a date, time, and location with lots of notice!

### At the event:

- Begin the day with a land acknowledgement. We can help you create one.
- Play an ice-breaker game to get comfortable!
- Observe and discuss invasive species around you - see observation sheet on page 5.
  - Additional question ideas: How many different plants are there (thinking about biodiversity)? Can we see any native species (e.g. on our ID cards)? Can we see any plants that seem to be taking over? What can we do to prevent invasive species from taking over?
- Leave some time if you are facilitating a sharing circle or filling out observations.



# 1A OBSERVATIONS

Outline your **Explorer Day option 1a** observations here.  
Volunteer leads fill out this form and have participants help you if you like.  
If you have extra copies, older kids might wish to fill out their own answers.

**NOTE: THIS IS AN OPTIONAL ACTIVITY. IF YOU WOULD LIKE TO SHARE YOUR ANSWERS WITH THE NATUREKIDS BC TEAM, YOU ARE WELCOME TO. WE LOVE HEARING ABOUT YOUR EVENTS.**

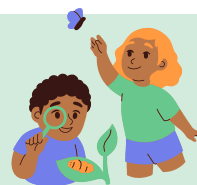
SEASON & WEATHER TODAY:

LOCATION (E.G. FIELD, FOREST, MEADOW, ETC)?

INITIAL OBSERVATIONS (E.G. DOES THIS ECOSYSTEM SEEM HEALTHY TO YOU?).

## OBSERVATIONS

What invasive plants did you observe at the site?	
What native plants did you observe at the site?	
Will you be returning in the spring to do restoration?	
Are there many species here? Or do a few seem to be taking over?	
What can we do to prevent invasive species from taking over?	
What animals and critters did you see?	
Any additional observations?	



# Explorer Day Option 1b

**Event:** Invasive Species Pull

**Volunteer lead:**

**Subject:** Powerful plants

**Ages:** 5-12

**Club location:**

**Event location:**

**Date of event:**

## Lesson focus and goals:

- Experiential learning ; healing the land and engaging as active stewards.
- Invasive plant removal. Why is this important?
- How is the land different after restoration? How does this impact people?

## Materials needed:

- Thick gardening gloves.
- Trowels or small shovels, scissors.
- Wheel barrows, garbage bags, tarps or something to carry pulled plants.
- Trash picking tools (for adults).
- A pen to fill out observations & sharing circle answers (if desired).

## Learning objectives:

- What are native plants and invasive species?
- How do we heal ecosystems and communities by pulling invasive species?
- Indigenous peoples: culture, native plants and decolonizing restoration.

## Activity:

**\*\*Note: this activity requires a community partner that can grant permission to remove invasive plants from a site.**

### Pre-event:

- Find a community partner to help deliver this Explorer Day. They can provide nature mentor expertise, access to a site, plants, tools and more. We can help find you a local connection.
  - Local stewardship organizations, community gardens or city park staff that focus on native plant restoration and invasive species removal are great places to start.
  - Working with an Indigenous community member and/or organization is also a great way to build local connections (see included introduction and cultural safety guidelines).
- Work with your community partner(s) to identify a good location for pulling invasive species. This location should be safe for all ages and easily accessible for a diverse array of physical needs.
- Ensure you have a designated drop off location and a designated volunteer for all plant debris post-event.
- Create a plan with your community partner(s) for how you will leave the site
  - (e.g. tarps or flags if relevant for future planting).
- Create a plan to safely remove any garbage you may find at the site.
- Send out a date, time and location with lots of notice!

### At the event:

- Begin the day with a land acknowledgement. We can help you create one.
- Play an ice-breaker game to get comfortable!
- Work with your community partner(s) to carefully pull and remove invasive species. Your community partner might also help facilitate planting native species!
- If any after care is needed (e.g. laying tarps down) make sure they are in place.
- Leave some time for the observation checklist & sharing circle if desired!





# 1B OBSERVATIONS

Outline your Explorer Day option 1b observations here.

Volunteer leads fill out this form and have participants help you if you like. If you have extra copies, older kids might wish to fill out their own answers.

**NOTE: THIS IS AN OPTIONAL ACTIVITY. IF YOU WOULD LIKE TO SHARE YOUR ANSWERS WITH THE NATUREKIDS BC TEAM, YOU ARE WELCOME TO. WE LOVE HEARING ABOUT YOUR EVENTS.**

SEASON & WEATHER TODAY:

LOCATION (E.G. FIELD, FOREST, MEADOW, ETC)?

INITIAL OBSERVATIONS (E.G. DOES THIS ECOSYSTEM SEEM HEALTHY TO YOU?).

## OBSERVATIONS

Which species did you remove?

How big is the site roughly?

What does the site look like now? E.g. more bare soil, visible native plants, etc.

How much biomass was removed (e.g. # of garbage bags)?

If necessary, did you place a tarp or any markers (e.g. flags) after pulling?

Did you find any garbage?  
If yes, was it removed and how much?

Additional observations?



# Explorer Day Option 2

**Event:** Storytelling in Nature

**Volunteer lead:**

**Subject:** Powerful Plants

**Ages:** 5-12

**When to host:**  
Any season

**Club location:**

**Event location:**

**Date of event:**

## Lesson focus and goals:

- Connecting with plants through storytelling; establishing deeper connection to place.
- Children and families engaging their creative minds in a natural setting.
- Learning about culture and human relationships to nature.

## Materials needed:

- A comfortable place to sit and share.
- Safe snacks encouraged! Nut free, dairy and gluten free options.

## Learning objectives:

- Listening.
- Nature vocabulary expansion.
- Plants and culture.
- Memory of place (forming a connection).

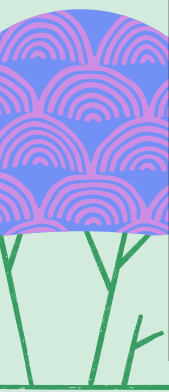
## Activity:

### Pre-event:

- Select the story you are going to read/tell. Here are some ideas of where to find content:
  - Visit your local library and choose a few kids books about plants to read to participants.
  - If you received a copy of *Braiding Sweetgrass* last year, you can read from there.
  - Or, if you are a storyteller, feel free to be creative!
- You can work with a community partner to find a storyteller in your region.
- You might think about reaching out to a local Indigenous community or organization (see introduction and cultural safety guideline in this toolkit).
- Choose a comfortable and visually appealing place for the event and let participants know in advance where and when they will be joining you.

### At the event:

- Begin the day with a territory acknowledgement. We can help you create one.
- Play an ice-breaker game to get comfortable!
- Sit in a circle or another formation that is comfortable for the group.
- Share stories about plants while encouraging participants to observe their surroundings.
- Leave lots of time for sharing circle questions at the end if you would like to do one.





# Explorer Day Option 3



**Event:** Plant Walk

**Volunteer lead:**

**Subject:** Powerful Plants

**Ages:** 5-12

**When to host:**  
Fall or Spring

**Club location:**

**Event location:**

**Date of event:**

## Lesson focus and goals:

- Learning about the importance of plants, ecosystems, and our relationships to them.
- Visual and kinesthetic learning, forming memories through experience.
- Creating relationships with a place.

## Materials needed:

- Native plant ID cards included in this kit.
- If you have one handy, a plant book / cards for your region will also be helpful.
- *Fall 2022 NatureWILD* magazine.
- Pencils, crayons and paper (if having participants draw). See additional journaling resources below.

## Learning objectives:

- What are the different types of plants (e.g. mosses, lichens, vascular, etc.)?
- What are the different parts of plants (e.g. roots, stems, flowers, seeds, etc.)?
- What are native and invasive species?
- Whose land is this? Learning about Indigenous peoples.

## Activity:

### Pre-event:

- If you would like to work with a community partner, reach out in advance. Some suggestions include local First Nations and Indigenous communities or organizations, local naturalist or ecology-based organizations and clubs, or your local city park staff.
- Choose a nearby location that will allow you to identify a variety of plants.
- Send out date, time and location invitations with lots of notice!

### At the event:

- Begin the day with a territory acknowledgement. We can help you create one.
- Play an ice-breaker game to get comfortable!
- Either you or your community partner can then talk about the importance of the place you are visiting, and name some of the plants you will see on your walk.
- Plant walk suggestions:
  - Walk around either guiding the group yourself or having your community partner point out some of the local plants (including for example, native species, invasive plants, important cultural plants, food sources, medicines, etc.)
  - Search for the four plants in your region's Plant ID cards!
  - After walking, you could also have participants sit and draw some of the plants they saw.
    - For journaling resources web search "*John Muir Laws Nature Journaling Curriculum*."
- Leave time for the sharing circle questions, if it makes sense for your group.



### • Important note on safety:

- If you teach about edible or medicinal plants, ensure that participants understand **not to eat or consume anything during this visit as it could be very dangerous**. Especially without their guardian present as well as someone who has experience foraging.

# Sharing Circle Questions

YOU CAN USE THESE QUESTIONS FOR ANY EXPLORER DAY YOU CHOOSE!



## Optional Activity:

Write down the main themes of participant answers below. Point form is great. If you would like to share the answers with the NatureKids BC team, please feel free to send us a photo.

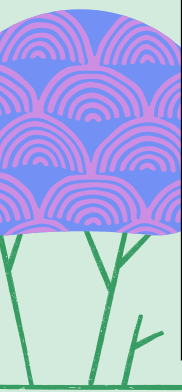
If possible, bring extra copies for older kids to fill out on their own.

1.What was your favourite part of the day?

2.What did you learn about plants today?

3.What did you learn from or about Indigenous peoples today?

4.Anything else you want to share?



# Additional Resources



CLICK ON OR LOOK UP THE RESOURCES BELOW TO SUPPORT YOUR EXPLORER DAYS OR IF A TOPIC PIQUES YOUR INTEREST!



MANY OF THE RESOURCES CAN BE SHARED WITH CLUB MEMBERS IF TIME AND SPACE ALLOW.

## NATIVE PLANTS 101

### THE RIGHT GREEN

WHY PLANT NATIVE TREES (2.26 MIN VIDEO - YOUTUBE)

### WWF CANADA

IN THE ZONE: NATIVE PLANT GUIDE (2.30 MIN VIDEO - YOUTUBE)

### PEEKABOO KIDZ

ADAPTATION IN PLANTS FOR KIDS (7.42 MIN VIDEO - YOUTUBE)

### HABITAT CONSERVATION TRUST

FUNGI MOSSES AND LICHENS - ID CARDS

### SUGGESTED BOOKS

(AS NEEDED AND FOR INTEREST)

- NANCY TURNER
  - FOOD PLANTS OF COASTAL FIRST PEOPLE
  - FOOD PLANTS OF INTERIOR FIRST PEOPLE
- LUSCHIIM'S PLANTS:
  - TRADITIONAL INDIGENOUS FOODS, MATERIALS AND MEDICINES

## INVASIVE SPECIES 101

### PROVINCE OF BC

INVADERS! INVASIVE SPECIES INTRO (1.42 MIN VIDEO - YOUTUBE)

### NATIONAL GEOGRAPHIC

INVASIVE SPECIES 101 (3.30 MIN VIDEO - YOUTUBE)

### INVASIVE SPECIES COUNCIL OF BC

**\*\*ALL LOCATED ON THEIR WEBSITE**

- OBSERVE IT - REPORT IT
  - REPORT INVASIVES APP
  - LIST OF INVASIVE SPECIES IN BC
- TAKE ACTION
  - ID INVASIVE SPECIES
  - EDUCATION GUIDE
- TEACHER RESOURCES
  - GAMES AND ACTIVITIES
  - LESSON PLANS



## DECOLONIZING OUR RELATIONSHIP WITH PLANTS

### NATIVELAND.CA

FIND OUT WHOSE LAND YOU ARE ON USING THIS INTERACTIVE MAP

### CBC KIDS NEWS

THE WORD INDIGENOUS EXPLAINED FOR KIDS (2.27 MIN VIDEO - YOUTUBE)

### LOOK LISTEN AND LEARN

WHAT IS A LAND ACKNOWLEDGEMENT? EXPLAINED FOR KIDS. (5 MIN VIDEO - YOUTUBE)

### FIRST PEOPLES CULTURAL COUNCIL

REVITALIZING FIRST NATIONS LANGUAGES, ARTS AND CULTURAL HERITAGE IN BRITISH COLUMBIA

### FIRST VOICES

LEARN ABOUT INDIGENOUS LANGUAGES IN YOUR AREA

### NATURAL CURIOSITY

INDIGENOUS PERSPECTIVES IN CHILDREN'S ENVIRONMENTAL INQUIRY

