

Overview:

This lesson plan introduces students to Queen Elizabeth II's passion for preserving and renewing the environment through initiatives like The Queen's Commonwealth Canopy.

Students will learn about native plants and the role they can play in their own environment by seeking out answers to the following questions: What are native plants? Why are they important? What native plants are located in your community? How can you preserve and protect native plants in your community?

Time:

1.5 hours

Subject/topic:

Geography, Science, Biology

Grade:

K - 12

Materials:

- Native plants of Canada infographic
- Native plants worksheet
- Electronic device with internet access

Learning objectives:

Students will:

- Learn about the Queen and her initiatives to preserve the world's forests in Canada and around the globe.
- Learn about native plants and why they are important.
- Share what they learned with the class.
- Conduct fieldwork in their local area.

Lesson Description

Minds on:

Students will watch a video clip from the documentary *The Queen's Green Planet*. Afterwards, students will engage in a classroom discussion and create a mind map on chart paper, whiteboard, or online.

Action:

Students will read the Native plants of Canada infographic and discuss its interconnection to Canada's natural environment, wildlife species, and their own environment. Students will research information online about native plants by filling out a worksheet on native plants.

Conclusion:

Students will use the iNaturalist website or app to conduct their own fieldwork on native plants in their area.

Lesson Implementation

Minds on

As a class, begin the lesson by showing the first 11 minutes and 30 seconds of *The Queen's Green Planet* on CBC Gem. Once finished, engage students in a discussion about what they watched. Record their thoughts on a mind map on chart paper, whiteboard, or online.

Use the following guiding questions to generate discussion:

- What is the Queen's Commonwealth Canopy? Why are trees so important to Queen Elizabeth II?
- Why is Canada participating in the Queen's Commonwealth Canopy?
- In the video, which country did the Duke and Duchess of Cambridge visit and why?
- Who are the Heiltsuk people and why is the rainforest important to them?
- Can you think of a natural space near you that you consider important? Explain why it is important.

Action

Once students are done discussing the documentary, hand out or project the Native plants of Canada infographic. Have students read the document and observe the map. Ask students to share any questions or thoughts they may have about native plants.

Distribute the Native plants worksheet to students and explain that they will be researching information on the importance of native plants to the natural ecosystems in Canada and their province. Have students use the infographic and share the following websites with students as a starting point for their research:

- Canadian Wildlife Federation
 - Native plants
 - Why grow native plants
 - Plant native species
 - Our home and native plants
 - Native plant encyclopedia
- CanPlant
- Bee City Canada native plants





Connection to the Canadian Geography Framework:

Concepts of Geographic Thinking

- Interrelationships
- Geographic perspective
- Patterns and trends

Inquiry Process

- Formulate questions
- Gather and organize
- Interpret and analyze
- Evaluate and draw conclusions
- Communicate

Geospatial Skills

- Technology
- Fieldwork
- Chart paper
- Markers

Explain to students that the Canadian Wildlife Federation Native plant encyclopedia, the CanPlant website, and Bee City Canada's native plants resources are databases for finding native plants in their area. Teachers may need to experiment with these resources before showing students how to use them.

When students reach the reflective question of the worksheet, have them consider our reliance on the success of the environment within which we live and our responsibility for keeping it healthy. With the onset of climate change, many of Canada's native plants could disappear if we don't commit to conserving them. Have students reflect on their relationship to nature.

For younger students:

As a class, search online for different native plants that you can find in your own province. Have students choose a plant they like and draw it. Students can look up the different parts of the plant and the different species that rely on the plant for food and pollination. Use the following websites to search for native plants together:

- CanPlant
- Bee City Canada native plants
- Canadian Wildlife Federation Native plant encyclopedia

QUEEN'S JUBILEE CLASSROOM CHALLENGE

To encourage students to go a step further, show them the **Queen's Jubilee Classroom Challenge**. Participate for a chance to win some great prizes!

Conclusion and Consolidation

Once students have completed their worksheets, introduce the iNaturalist website or app. Inform students that they will be heading outside to try to identify as many native plants as possible in their school yard, neighbourhood or community. Students can add their findings by making their own profiles and creating their own project.

Note: This activity will need to be prefaced with a small workshop or tutorial on how to use iNaturalist for students. For a version suited for younger grades, check out the Seek app created by iNaturalist. Teachers are encouraged to experiment with the website or app of their choice before sharing with students. Check out the iNaturalist teacher's guide and/or the help page available on their website.

Extend your geographical thinking

- Students can watch the entirety of *The Queen's Green Planet* instead of a clip to generate ideas for a research project.
- Students can complete steps two and/or three of the Queen's Jubilee Classroom Challenge to win some prizes.
- Students can produce a public service announcement (PSA) script or video about the importance of native plants like this PSA from native insects by Homegrown National Park.
- Students can turn the worksheet into a poster and post it somewhere in the community, such as at a local coffee shop or library.
- Older students can build a website with the information they learned and share it with their community.





- Students can contact a local plant nursery to start planting native plants in their school, home, or community garden. You can refer to Pollinator Partnership Canada to find planting guides for each province.
- Students can take a look at sample projects on iNaturalist such as Native woody plants of Manitoba, UVic native plants and animals, or I spy and identify invasives to get inspiration for starting their own project.
- Use Can Geo Education's Fieldwork teacher's guide to extend the consolidating activity.

Modifications

- Students can complete all the tasks above in pairs, groups, or as a class.
- Students can use a computer or tablet to write down their thoughts instead of by hand.
- To simplify the fieldwork activity, students can record their findings by taking photos on an iPad or tablet.

Assessment Opportunities

- Observational and anecdotal notes can be used for assessment for learning, which can also be evidenced by the completion of the worksheet.
- Assessment as learning can be facilitated by a Two Stars and a Wish activity
 or a simple reflective journal entry about the activity, sharing what students
 understood and what they need more time on.

Sources and additional resources

- Canadian Wildlife Federation
 - Native plants
 - Why grow native plants
 - Plant native species
 - Our home and native plants
 - Native plant encyclopedia
- CanPlant
- Bee City Canada native plants
- iNaturalist
 - Seek App
 - Teacher's Guide
 - Help page
- Queen's Jubilee Classroom Challenge
- Homegrown National Park PSA from native insects
- Pollinator Partnership Canada Planting guides
- Can Geo Education Fieldwork Teacher's Guide





Did you know that the official flower emblems of our provinces and territories are all native plants?





What are native plants?

Native plants are flora that are indigenous to a certain region, having evolved naturally without interference from humans. Canada has more than 3,000 native plants, which include trees, wildflowers, grasses, aquatic plants, and more!

Why should you plant native species?



Native plants attract native pollinators that help support our ecosystems.



Plants are the main food source for many insects, which feed other animals in the food chain. Some native species rely solely on a native plant, like the monarch butterfly relies on the milkweed!



Native plants have had thousands of years to adapt to Canada's unique conditions. They need less maintenance and water than introduced species.

Fun fact

Queen Elizabeth II recently discovered a love for gardening at the age of 91! To celebrate the Queen's Platinum Jubilee, people across the United Kingdom are encouraged to "plant a tree for the Jubilee" through an initiative called The Queen's Green Canopy. Help turn this into a global movement and consider planting one of Canada's native species near you!



Want to learn more? Check out our Queen's Jubilee resources at cangeoeducation.ca



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