

Lesson #1: Plants, Planet, People

Our Connection to Plants

01

Big Idea



The health of people and the health of our planet depends on plants! As humans, we rely on plants in many ways - for food, shelter, clothing and even the air we breathe. The health of our planet relies on plants too. Students will explore the interdependence of plants, animals, and the important roles plants have for all to live on Earth.



Suggested Steps:

1. Start by watching the video, pausing at Stop & Checks. Alternatively, begin with the first activity and then watch the video.
2. Complete the second activity (prepare the boreal forest cards first)
3. Close the lesson with a journal reflection prompt or My Climate Story hand-out.

Guiding Questions:

- What are some ways that we use plants in our daily lives?
- In what ways do living things depend on plants to survive?
- How do plants depend on us?

Learning Objectives

I know (knowledge), I can (skills), I understand (conceptual understanding)



I KNOW

- ↳ That plants play important roles on Earth that are essential for all life on earth
- ↳ The role of plants in food chains and webs.



I CAN

- ↳ Identify how I use plants in my daily life.
- ↳ Explain the roles that plants play in creating a healthy world for all life.



I UNDERSTAND

- ↳ How different plants and animals depend on each other.
- ↳ My responsibility to help plants and plant habitats live and thrive.



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Activity 1: Plants Around Us

Time: 20 mins

Process: 9 steps



Materials Needed:

- “Plants Around Me” Handout
- “Classroom and Home Illustrations” for brainstorming (optional)
- “My Plant Connections” student handout (optional)
- Pencil & paper
- Flipchart or whiteboard & markers

Discussion

1. Ask your students a few guiding questions from above, such as “What are some ways that we use plants?” and “What objects around us are made of plants?”
2. Ask students to look around the room. Alternatively show the “Plants Around Us” posters for additional examples.
3. What plants do you see - either living plants or pictures of plants in the room? You may choose to write a list of sight words for vocabulary.
4. Look around again. What products do you see that are made out of plants? It may be easiest to start with items made out of wood. What about plant products that are in your desk or your lunchbox?

“Plants Around Us” classroom poster



Examples of Plant Products Around Us

- Rubber in sneakers from rubber tree
- Jeans (cotton), or linen or hemp clothes
- Books, pencils, posters (trees)
- Desks (trees)
- Food in lunch
- Ink (most is vegetable-based)
- Hand-soap or fragrances (palm oil)

Activity

5. Working together, think back to how you started your day, and consider whether you interacted with any plants or plant products. For example create a list of plants you have used or seen since you got up this morning. You may want to use the “Plants Around Me” template in the Appendix.
6. Use the five senses to help you in your brainstorming. What plants did you see, hear, smell, taste, touch? When you got out of bed? At breakfast? On your way to school?
7. Now ask students to think about the rest of the day. What future plant interactions will they have? What about during meals like lunch or supper? How about outside or during other play?
8. Optional: Have your students break out into small groups and complete the “My Plant Connections” worksheet, and come back to the whole group after.
9. Gather student suggestions and check for understanding. What new plants did we learn about in this activity? Are we surprised about how many plants we rely on?

Accommodations or Extensions

- ↳ You may want to do this activity by having students interview each other in partners. Encourage the listening partner to ask questions to help fill in the “Plants Around Me” template.
- ↳ You may want your students to take home the “My Plant Connections” worksheet (or an extra copy) to explore with their family the different plant or plant products they interact with, and bring it back to class the next day.

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Activity 2: Relationship Webs

Time: 25 mins

Process: 16 steps

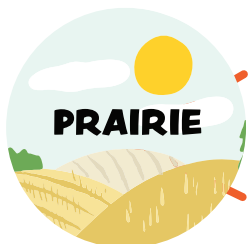
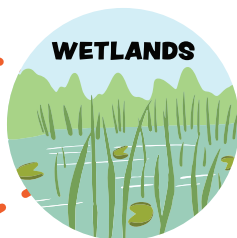


Materials Needed:

- Paper cut in half or quarters (1 per student)
- Pen or pencil
- Markers/pencil crayons/crayons
- Long ball of yarn or string
- “Boreal Forest Flash Cards” (optional) to facilitate activity

Discussion

1. Ask your students to think about what a habitat is. How would you describe it? Habitats are the place where a living thing has shelter, food, and water.
2. What is the name of our habitat?
3. Can you think of an animal or plant and name its habitat? Ask your students to think of an animal and the habitat it would live in.
4. Now think about the different animals, plants and organisms and every other living thing in a particular habitat. Can we name what else might live there? How about a pond? A desert? Or a tree outside the school? What about a garden?



Activity

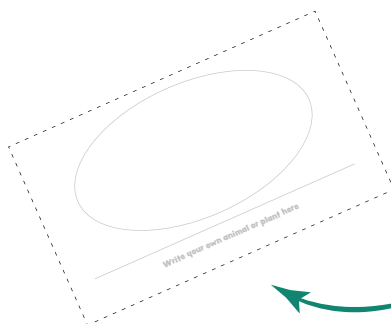
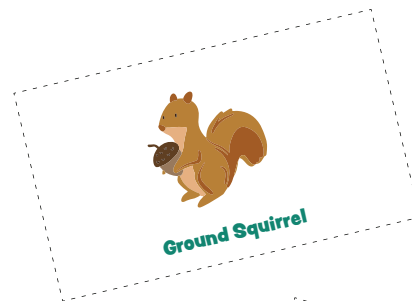
5. You might want to do this activity outside for more space, though inside is fine too!
6. In this activity, you will be looking at how different species are connected within a larger habitat (home) or an ecosystem (a ‘neighbourhood’ of habitats)
7. Determine a specific habitat or ecosystem with your students that you will use for this activity, like a forest, a field, or a farm! If you’d like this ready to go in advance, print out the “Boreal Forest Flashcards” and focus on the boreal forest as the example.
8. Ask your students to list all of the important living things they can think of in that setting. To help in the brainstorm, think about plants, animals, and other species. Then, think about the tiniest animals and plants, medium-sized ones, and the largest. If you want, you can add in non-living things too!
9. Jot down the long list of answers students give you. When you have as many examples as there are students in the class, stop.
10. Hand out papers and assign each student a species to draw on that paper, either randomly from your jot notes, or let them choose. You may want them to write the word too! Or, use the “Boreal Forest Flashcards.”

Activity 2: Relationship Webs

11. Have students stand in a circle and hold out their piece of paper for all to see.
12. You will start this activity with your own paper, depicting the sun. You might want your students to guess what you've drawn by giving the clue *"I am a non-living thing that is essential for plants..."*
13. You'll start with the ball of string. Tell students that they have to pass the string to another species and answer the question: *"Who am I connected to?"* To start, look for a plant, throwing the ball of string to that student and answering the question, reminding students about the role of photosynthesis.
14. Ask that student to then make a connection to another species. As a prompt, ask students about needs such as shelter or food, or food for another species.
15. Let students know that they can go back to another species (or the sun!) but encourage everyone to connect with someone who hasn't gotten the string yet first.
16. Once everyone has gone through, look at the web. Ask students to think about the connections that happened. Did any surprise you?

Accommodations or Extensions

- ↳ To modify the string toss activity, try challenging your class to imagine different environments across Canada, helping them to explore different plants and animals.
- ↳ You may want to challenge your students to think about humans. How many of the cards would be connected directly to a human? (For example, a human picking berries or mushrooms, or hunting a moose for meat and clothing?)



Create your own too!



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My Climate Story Reflection



As part of planting seeds for climate stories, your students are developing their own story to help them walk through their role in climate change. You can use this assignment in place of -or to support- a journal reflection.

The companion worksheet for developing My Climate Story for this lesson asks your students to describe and draw things in their lives (people, places, priorities), that matter most to them.

For further support to help your students develop their own Climate Story, check out the explanation in the Teacher's Guide.



Reflection/Journal Prompts

- Imagine a world without plants. What would you have to do without? Would we survive?
- What are different ways we can show respect towards the Earth and plant life?
- What are some different ways that you use plants in your everyday life?

Assessment/Evaluation

The graphic organizer exploring interactions from the first activity can act as a great exit slip. Check for student understanding using the class discussions from both activities, as well as the journal reflection. Use My Climate Story assignment for personal connection to the topics.

Diving Deeper:

- ↳ Vermicomposting is a fun way to explore the intricate system of plants with soil via the breakdown of nutrients by worms. Try it in your class and help your students better understand the relationship of plant health to soil health, and the biodiversity that ensures all creatures survive in this ecosystem.
- ↳ Connect back your exploration of biodiversity webs by using a local garden as another example. Have students practice inquiry on what living and nonliving things are required for a successful garden. Which things depend on other things? How many connections can be made?

