

QUILLS

Queen's University Indigenous Land-Based Learning STEM
Queen's University Biological Station

Interacting with Reciprocity with our Plant Relatives

Organization:

Title: Interacting with Reciprocity with our Plant Relatives

Summary: Students discover how while both Western scientists and local Indigenous groups view plants as alive (or biotic), local Indigenous groups view plants as *spirited* relatives which is generative of the development of more reciprocal relationships between plants and community members

Inquiry Question: Inquiry Question 2. What is the reciprocal relationship that exists between Indigenous community members and the tools they utilize and the materials they are made from?

Duration: 1-2 class periods **Learning Environment:** Outdoor **Season:** Summer, Spring, Fall

Materials:

Adapted Version of Producers, Consumers, Decomposers tag.pdf

• Learning Activity 6: The Honorable Harvest from the Indigenous Knowledge Bundle

 Learning Activity 2: Getting to Know Our Plant Relatives from the Gifts of the Earth Bundle

Curriculum Links:

Grade 7 Science and Technology: A1.1, A1.4, A1.5, A3.3, B1.2, B1.3, B2.1, B2.2, B2.3

Grade 9 Science: A1.1, A1.5, A2.5, B1.3, B2.1, B2.4

Grade 9 Academic Geography: C1.4

Meta Data:

Content Type: Activity

Bundle: Tools

Theme: Invasive Species

Subject Area: Biology, Environmental Education, Geography, Outdoor Education, Physical

Education, Science **Curriculum Focus:** 7, 9

Biotic Elements:

- Plants play an important role in the food chain. For instance, Western scientists
 recognize that plants are vital part of an ecosystem as they are able to convert energy
 from the sun into energy that can be consumed through a process called
 photosynthesis.
- To solidify this idea, students play an adapted version of the following producers, consumers, decomposers tag: https://www.scienceworld.ca/resource/food-web-tag/ found in Adapted Version of Producers, Consumers, Decomposers tag.pdf.



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- Teacher explains that Indigenous groups also recognize the important role of plants in their lives.
- Local Indigenous groups, however, value local plants differently. For local Indigenous groups, their valuing is rooted in their holistic worldview. For instance, Yakothehtón:ni (Jennifer E. Brant) who sits with the Bear Clan in Kenhtéke Tyendinaga Mohawk Territory, shared with QUILLS that not only are plants seen as a vital part of the food chain, but they are also seen as relatives that provide for the physical, spiritual, emotional and mental well-being of their communities. Furthermore, Potawatomi scholar Robin Kimmerer from Syracuse, New York, tells us that Indigenous groups have so many uses for plants that in some Native languages the term for plants translates to "those who take care of us". In turn, Indigenous groups believe that they have responsibilities to the plants as communicated by the Creator through the Original Instructions.
- Métis Knowledge Keeper Candace Lloyd from Cross Lake Island, Saskatchewan and Sault St. Marie, Ontario shared with QUILLS that through traditional harvesting practices known as the Honorable Harvest local Indigenous groups are able to give back to their plant relatives and maintain a relationship characterized by reciprocity and interdependence.
- Students can review the Honorable Harvest in Learning Activity 6: *The Honorable Harvest* in the Indigenous Knowledge Bundle.
- Students can also engage in Learning Activity 2: Getting to Know Our Plant Relatives
 from the Gifts of the Earth Bundle. These activities will help students enter into
 relationship with local plants.
- Anishinaabe Knowledge Keeper Joe Pitawanakwat from Wikwemikong Unceded Indian Territory on Manitoulin Island shared with QUILLS that getting to know your plant relatives is important! It is through the process of learning how to ID plants, coming to understand the gifts that they provide, and knowing how to give back to plants that humans can begin to develop reciprocal relationships with their plant relatives.

Please note that the learning represented in these activities reflects Big Idea C. in the Indigenous Knowledge Learning Bundle: "Reciprocity, Interdependence, and Holism are at the Heart of Indigenous Ways of Knowing and Being". To help your students learn more about these concepts, foundational to Indigenous ways of knowing and being, check out the Learning Activities titled: Holism, The Honorable Harvest, and Our Responsibilities found in the Indigenous Ways of Knowing and Being with the Natural World Learning Bundle (Grades 7-10).