

# QUILLS

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

# Living in Reciprocity

#### Organization:

Title: Living in Reciprocity

**Summary**: Depending on the time of the year this Learning Bundle is taught, students can engage in *seed starting, planting, tending to, harvesting, or seed saving.* If the class or school does not have its own garden, the class can arrange to visit the garden at Elbow Lake or another community garden in the region.

**Inquiry Question:** Inquiry Question 5: What are some ways Indigenous communities are engaging in reciprocal relationships with each other and the natural world in order to mitigate the negative impacts of climate change?

**Duration:** Students can engage in these activities in an ongoing manner throughout the course of the Bundle.

Learning Environment: Classroom, outdoor

Season: All

Materials:

• Local Indigenous Gardens.pdf

#### **Curriculum Links:**

Grade 9 Destreamed: A1.5, A2.5, B1.3, B2.4, B2.5, B2.7 Grade 10 Academic: A1.4, A1.10, A1.11, D1.2, D2.9 Grade 10 Applied: A1.4, A1.10, A1.11, D2.7, D1.2

#### Meta Data:

Content Type: Activity, community action project Bundle: Food Theme: Global Climate Change Subject Area: Biology, Environmental Education, Health, Outdoor Education, Science Curriculum Focus: 9,10

# We recommend inviting an Indigenous community member into the learning environment to share teachings related to local Indigenous agriculture.

Depending on the time of the year this Learning Bundle is taught and if/when students grow beans in Learning Activity 10: *Western STEM Connection- Engaging with Reciprocity and Interdependence* students can engage in seed starting, planting, tending to, harvesting, or seed saving. If the class or school does not have its own garden the class can arrange to visit the garden at Elbow Lake or another community garden in the region.



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Things to Keep in mind when:

#### Seed Starting:

Seed starting can be done in the classroom to get a jump start on spring. We encourage you to grow native plant varieties that will do well in this local environment. Seeds are much cheaper than plants, so it makes sense to start seed which also give students the opportunity to learn more about the growing cycle.

# **Planting and Growing:**

If growing space is limited, teachers can create a mini three sisters garden in an outdoor container, such as a bucket or barrel. Although students may not be able to see the crops grow to maturity, they should be able to observe the pole beans twine around the corn and the large squash leaves form a mat. To simulate this planting system, use a large container with drainage holes in the bottom and fill it with potting mix and compost.

### Tending to the Garden:

Give students the opportunity to actively care for a garden. Encourage students to understand that humans are not separate from the land. Instead, humans are embedded in the natural world and have obligations embedded in the original instructions to tend to and care for the gifts of the earth. To fulfill these responsibilities, we must learn not only what land can provide us with but also how we can give back to each element of the natural world. In this way we learn how to live in reciprocity.

#### Harvesting:

If your garden grows to maturity and you are lucky enough to harvest crops with your class, it is important that students are encouraged to give thanks to the garden and its gifts. It is also important that the crop is not wasted, and seeds are saved for the next growing season. You may consider preparing food for your class. You may also consider donating the food to a local foodbank or food security organization.

#### Seed Saving:

When seed saving, don't forget to properly clean, dry and store your seeds. As there are different protocols for different seeds, it is important to do your research. We recommend inviting a community member into the classroom to assist with this process.

# Extension:

A list of local gardens that school groups can visit including the Indigenous sovereignty garden in Lake Ontario Park will be included in the document titled **Local Indigenous Gardens.pdf.** 

Please note that the learning represented in this activity 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 foundational concepts 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).