



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

Seed Saving and Tree Planting

Activity adapted from Science Rendezvous' Million Tree Project.

- Teacher tells students they are going to be collecting seeds to grow into trees. Students can download the app "My Tree" onto school devices (iPad, Chromebook, etc.). This app is from the Government of Canada and tells you common trees found in your specific area in Canada.
- Teacher divides students into groups (or can allow them to work individually) and has them look at different trees in their area using the app. Groups of students decide on a tree that they want to collect a seed for and grow.
- Prior to selecting trees, the teacher should help students come up with criteria for deciding on a species. For instance: it must be a native species, the tree must be present in the collecting area, it needs to be able to grow in the surrounding climate/conditions, etc. Students must find certain information, such as how to care for the seed they chose, when to plant it, type of climate/soil needed, etc.

Teacher can ask students:

- How do you think we will collect the seeds?
- Why do you think seeds taken off the ground might not be effective for planting?
 - Teacher shows students examples of effective/mature seeds that are good for planting.
 - To do this teacher should collect a good seed from outside ahead of time or find a photo example online. *Tip*: good seeds are whole and plump. Teacher reminds students that when collecting seeds, they need to be respectful to the tree and not cause any harm to it or to the other species they may encounter.
 - Next, the teacher takes students on a nature walk to a wooded area (for example Elbow Lake). Student groups should find the tree they decided to plant and collect seeds. If needed, the teacher can allow students to use the "leafsnap" app to help them find/identify their tree. The Science Rendezvous Million Tree Project offers some advice on collecting seeds for planting:
 - One free way to plant a tree is by collecting your own seeds. Picking tree seeds off of the ground is quick and easy, but it might not lead to successful planting. That's because fallen seeds have often been munched on by insects or fungi... or are simply too old to sprout. A better way to collect seeds is to get shaking!
 - Pick a strong, healthy-looking tree and wait until autumn, when seeds are ripe.





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- Use a rake to clear the ground under the tree or spread out a blanket or tarp. This makes the seeds easier to find.
- Grasp the trunk or low hanging branches and shake, shake, shake! Not too hard you want to loosen the seeds without damaging the tree. For higher branches, try using a stick or pruning pole.
- Check the seeds for quality. Whole, plump seeds are most likely to sprout.
- Teacher may want to shake the tree to allow students to pick the seeds that fall from the ground. If teachers are allowing students to collect the seeds themselves, it is important to remind students of pertinent safety precautions.
- Bring the seeds back to the classroom.
- Back in the classroom, students should sort through the seeds they collected to determine which of the seeds would be best for planting. Students should set the good seeds aside and return the excess seeds to the site where they found them. Teacher can tell students that the next step will be to plant their seeds!
- Have students register their seeds with the Million Tree Project.
- Students develop a plan for their seed collecting/planting in their journals. Have students come up with a plan for collecting seeds, a list of materials they will need for planting, how they will germinate their seeds, etc. Throughout the process, they should record their observations and field notes in their Outdoor Learning Journal.