

Tapping Birch Trees

Age Range

- 8-18+

Group Size

- Maximum: 30

Time

- Set-up: 30min- 2hrs
- Activity: at least three 45-minute sessions to tap, collect and consume sap
- Time modifications available

Materials

- Birch tree stand with many trees that are 20cm in diameter and not too spread out
- Drill
- 7/16" bit (should be at least 5cm long)
- Spile/spigot
- Hammer
- Disinfectant (e.g. Rubbing alcohol)
- Cloth
- 10-12L buckets or jugs to collect sap
- Rope
- Sieve for filtering sap
- 25-30L container for transporting sap
- Stove
- Pot
- 7/16- 1/2" Cork or dowel plug

Set-Up

1. Birch sap begins to flow in late April early May in the south of the NWT; more northern communities can expect a later start. During sap season, the activity facilitator should locate a stand of birch trees approximately 20cm (8") in diameter (add an inch or two in northern latitudes). Look for trees with healthy crowns (i.e. buds all the way to the top, without rot or ice/wind damage at the crowns), healthy bark (i.e. not girdled or stripped) and lots of



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Topic

- Local Food Production
- Curriculum connection: elementary and junior high chemistry, biology, social studies, mathematics and aboriginal language/culture

Objective

- Children will learn how to harvest and use birch sap
- Birch sap harvesting is a traditional Indigenous activity.



exposure to the southern sun. Drill a test hole in one or two trees and monitor until sap begins to visibly flow from the holes.

Delivery Tips

- The activity facilitator should be familiar with the information contained in the *Birch Basics Resource Sheet*. This information can also be presented to children.

Activity Directions

2. Have children identify birch trees appropriate for tapping. Visually examine the trees and measure their chest-height diameter.
3. You may wish to have children tap trees in pairs or individually, depending on the number of trees, buckets, spigots, etc. Have children select a smooth area on the north or shaded side of the tree, roughly chest height from the ground. Clean this area with a cloth and rubbing alcohol. Disinfect the drill bit with a cloth and rubbing alcohol and proceed to bore a hole about 3.5 to 5cm (1 ½ to 2”) deep on a slight upwards angle. Pull out the drill and clear the hole of any wood chips that may plug the spigot when the sap begins to flow.
4. Disinfect the spigot with rubbing alcohol and cloth. Gently tap in the spigot with a hammer. The spigot should be tight enough that it won't easily be dislodged but not so tight that it splits the wood or cracks the spigot. Hang the bucket or jug either by tying it around the tree with rope or hanging it from the spigot. Ensure the container is covered.
5. Check your sap buckets daily. Pour the sap through a sieve or screen into a large container to be transported back to the school. Naturally occurring yeasts can cause the sap to spoil, so care must be taken to refrigerate or freeze the sap if you choose not to immediately drink or boil it.
6. Drink the sap cold, straight from the tree. Indigenous peoples of the NWT have traditionally consumed raw birch sap as a spring tonic. You might also choose to make tea by bringing the sap to a boil in a pot on the stove and adding tea bags or other naturally harvested plants. Try infusing birch twigs in boiled sap.
7. Birch sap season lasts 2-3 weeks. As birch leaves emerge and temperatures rise, sap spoils more easily, and a distinctive pink fungus will visibly form around the spigot. The sap also turns cloudy and begins to smell like rotten feet. It's time to pull the taps.
8. Remove the spigot from the tree and insert an appropriately-sized disinfected cork or dowel plugs into the tap holes with a hammer. A 7/16” hole should be filled with a ½” plug, for example. A scar will ultimately heal over the hole.

Pairs Well With

- Birch Syrup Distillation Activity

