

FrogWatch

Age/Grade Range

- Grade 7-12

Group Size

- Large group activity (15-30 students)

Time

- Set-up: 5-20 minutes
- Activity: ½-1 hr, This works best as a weekly or daily activity

Materials

- Note paper or recording sheets, and pencils
- PlantWatch North booklets or poster sheets, or plant field guides.
- Compass (optional)
- Camera (optional)
- Devices with access to internet

Additional Considerations

This is an outdoor activity for the spring or summer, where students will gather plant data and contribute to a real citizen science database.

Set Up

1. Become familiar with the PlantWatch website and program. naturewatch.ca/plantwatch/
2. Create a NatureWatch account, and explore the “submit observation” page so you can see how it works and what information your class will need to collect.
3. Pick a location where you and your class will collect the data. A nearby bush or rocky slope that faces south will likely offer many different PlantWatch North species to choose from. Changes will occur rapidly in areas that receive lots of sunlight.
4. You may want to create a short slideshow of pictures to give students an idea of what they are looking for before they go out.
5. Contact Ecology North (867-873-6019) for some PlantWatch North posters, which will have pictures and descriptions of the plants that your students can bring into the field with them. You can also look for resources at ecologynorth.ca



NWT SCIENCE FOCUS

Topics

- NatureWatch
- Ecology and Animals

Objective

- Learn how to identify some common plant species of the NWT.
- Learn how plant phenology connects to climate change.
- Show students what citizen science is all about.



Activity Directions

1. Divide the class into small groups. Each group will need at the very least a reference for identifying the plants, and paper and pencil to record their findings. You may also want to provide a compass to find the slope aspect if they are on a slope, and a camera to photograph the plants they find.
2. Go through the different plants that you will be searching for. The more information you can give them beforehand, the better. Narrow down the options, based on what students are likely to find. These plants are common through most of the NWT and their important events like first bloom and leafing occur in the spring:
 - a. Cranberry
 - b. Cloudberry
 - c. Prickly saxifrage
 - d. Dandelion
 - e. Bearberry
 - f. Tamarack
3. Describe what events you are looking for, and their significance. When submitting an observation, the website will ask which of three events you observed.
 - a. First bloom: When first flowers open (in 3 places within a 1m² patch).
 - b. Leafing out: When first leaves have emerged (in 3 places on the tree).
 - c. Mid bloom: When 50% of flowers are open within a 1m² patch.
4. Studying these sorts of events regularly in nature is called plant phenology. Plants act like a clock, and keeping track of these key events allows us to see changes occurring to our environment over time. One effect of climate change is that some species may be found further north or bloom earlier than they used to; citizen science is one of the best ways to keep track of these changes.
5. Get outside and find those plants! Give students a finite area and time limit to search. Having a few adult supervisors who can help with identification will help this part of the activity to run smoothly. In their groups, the youth will search the area for plants, recording the species and any event (first bloom, leafing out, or mid bloom) they may observe. They can either sketch a picture of the plant or take a picture of it.
6. Return to the classroom to share findings. Pictures taken in the field can be uploaded onto a slide show to be shared with the class. If there were blooming/leafing events observed, students can create their own accounts and submit their observations to the PlantWatch database. If they don't all have their own computers you can also do this as a class. After students sign in to NatureWatch, they will be able to explore the site more. You may want to have them find the observations map to see if there are any other PlantWatch observations in the area. Even if your class can't find any blooming/leafing plants, learning to identify these local plants and exploring the site will still be a worthwhile activity.
7. Returning to the same location regularly over the course of a few weeks in the spring is the best way to observe these PlantWatch events.

