Environmental Education Activity

IceWatch

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

- Notepaper or recording sheets, and pencils
- Thermometer (optional)
- Camera (optional)
- A device with access to the internet

NWT SCIENCE FOCUS

Topic

- NatureWatch
- Climate Change

Objective

- Learn how to monitor freeze/thaw events of local lakes and rivers.
- Connect local lakes and rivers to climate change.
- Show students what citizen science is all about.

Additional Considerations

This is an outdoor activity for the spring or fall, where students will gather ice data and contribute to a real citizen science database. It is best to visit the same site multiple times during freeze-up and spring thaw to get an accurate record of the ice.

Set-Up

1. Visit the IceWatch website and become familiar with the program https://www.naturewatch.ca/icewatch/
2. Create a nature watch 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 or a few locations where you and your class will collect the data; a nearby lake or river.

ECOLOGY NORTH

Activity Directions

1. When submitting an observation, the website will ask which of the two events you observed.
    a. Ice on: When the ice completely covers the lake, bay, or section of the river.
    b. Ice off: When the ice completely disappears from the lake, bay, or section of the river.
2. You may be able to record these events multiple times during either the spring or fall, so make a note on the observation when you submit about whether it is the first, second, third, etc. time it is freezing or thawing in a given year.
3. Tracking these key events allows us to see changes occurring to our environment over time. One effect of climate change is that some lakes and rivers may be freezing over later in the fall and breaking up earlier in the spring than they used to; citizen science is one of the best ways to keep track of these changes.
4. You may want to divide students into groups and provide each group with paper and pencil to record their findings, a thermometer for recording the air temperature, and a camera to photograph the observation area.
5. Go out to your lake or river as a class and take your observations of the ice.
6. Return to the classroom to share findings. Pictures taken in the field can be uploaded onto a slide show to share with the class. After a week of observations, students can use their pictures to create a slideshow of the freeze-up or break up. Alternatively, you could have the photos printed so that the students can paste them in sequence on a board.
7. If you've witnessed an "ice on" or "ice off" event, students can create their accounts and submit their observations to the IceWatch database. If they don't all have their computers, you can also do this as a class.