

IPY Activities in Illinois

Our students thought globally, acted locally, and shared data locally & globally!

Gregory Lopatka¹ Maureen Nolan²

On September 29, 2009, the students from Steeple Run went to Rotts Creek, where they have been monitoring the water at the GLOBE Study site since 2004. Students checked the oxygen, nitrates and phosphates levels, turbidity, pH and conductivity of the water sample, while other students collected benthic macro invertebrates. Students entered the Data into the **GLOBE** Data Base. Over the years they have discovered that the stream has improved from low average to high average.



Students use their weather station to take readings of air and soil temperature, measure rain or snow, observe cloud and percent cloud cover, contrails, and barometric pressure. Then the students enter their data onto the Globe website.



Communication

Observation



Analysis

We began taking surface temperature in 2007 with our new infrared thermometer. Students learned the surfaces with snow cover were lower than those without. That led to an understanding of the importance of snow covered polar regions.



Students take stream responsibility one step further by raising large mouth bass in the classroom



In caring for the bass, students learn the importance of controlling temperature, pH, and harmful chemicals in the tank. They also learn about the effects of protecting organisms at the top of the food chain. At the end of the year the students release the bass into a lake where they will be able to survive.



Action

On October 11, 2008, the students from Steeple Run began documenting the green down of 4 study trees at the Morton Arboretum.

<http://www.mortonarb.org>



Students from Steeple Run School training a teacher at the Morton Arboretum.



On Saturday, April 7, 2007, several volunteers from Steeple Run School came out to the Morton Arboretum to begin collecting **GLOBE** data on bud burst. In April, we watch for bud bursts on several trees, including a white oak, which opened on 5/1 in 07, 5/3, in 08, 5/2 in 09, and 4/18 in 2010. We also watch when ponds and rivers thaw out in the spring. Monitoring of the trees and water has been on-going. We have added two trees on the grounds of Steeple Run School. Communicating this information helps scientists predict climate change.



Greg Lopatka¹ is a GLOBE trainer for Naperville Ill Schools District and the Morton Arboretum in Lisle Ill. He has conducted workshops in schools and heads the GLOBE outreach program at the arboretum.
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GLOBE (Global Learning and Observations to Benefit the Environment) is a worldwide hands-on, primary and secondary school-based science and education program. GLOBE's vision promotes and supports students, teachers and scientists to collaborate on inquiry-based investigations of the environment and the Earth system working in close partnership with NASA and NSF Earth System Science Projects (ESSPs) in study and research about the dynamics of Earth's environment.. www.globe.gov



The Forest Preserve of DuPage County in Illinois partners with schools in the county in creating the River Monitoring and "The Bass in the Class" program.
<http://www.dupageforest.com>

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