Polar Education Internet Resources for 3rd-5th Grade Teachers

Antarctic Photo Library ([photolibrary.usap.gov](photolibrary.usap.gov))

Lots of great photos from the United States Antarctic Program (USAP). The pictures here are free to use for educational purposes so long as the photographer and the National Science Foundation (NSF) are credited. The photos are organized into categories and are searchable by keyword.

Arctic Climate Modeling Program ([www.arcticclimatemodeling.com/index.html](www.arcticclimatemodeling.com/index.html))

Curriculum resources for weather and climate for all grade levels. There are also videos and multimedia resources available to explore various aspects of weather and climate. You can also access real-time weather data from the Student Network for Observing Weather, where students in rural Alaska collect weather data and post it to the Internet.

Arctic Stories ([www.arcticstories.net/index.html](www.arcticstories.net/index.html))

This site is primarily a collection of videos which the science, sea ice, wild life, life, climate, and people of the Arctic. The perspectives include scientists as well as an Inupiaq Eskimo elder. These videos provide a wide range of perspectives on topics related to studying the Arctic. There is also a collection of photographs from the Arctic.

Beyond Penguins and Polar Bears ([http://beyondpenguins.ehe.osu.edu/](http://beyondpenguins.ehe.osu.edu/))

Wonderful online magazine for K-5 teachers. Each issue focuses on a different polar theme and includes scientific content materials, literacy content materials, tips for technology integration, lessons, literacy resources, researcher stories, and the latest news from the poles. Don't overlook the links at the very top of the page. "Stories for Students" takes you to a page where you can access polar-themed books on three different reading levels. These books can be downloaded as text-only or illustrated versions as well as being enjoyed online as e-books with a read aloud option. Using the "Browse Columns" link will allow you to look at all of the columns published in each category without having to go through each individual issue. Many of the activities can be adapted to older students and the content information is helpful to everyone. If you are a K-5 teacher and are only going to use one polar education website, this is definitely the one it should be!!

Center for Remote Sensing of Ice Sheets Education Page ([www.cre sis.ku.edu/education/k-12/](www.cre sis.ku.edu/education/k-12/))

The education page of the Center for Remote Sensing of Ice Sheet (CReSIS) has some great resources. There is a nice collection of K-8 lessons as well as video lectures on various topics relating to ice sheets that would be great to use with older students or to get some good background information.
**Diving Under Antarctic Ice** ([www.norbertwu.com/galleries/Antarctica.html](http://www.norbertwu.com/galleries/Antarctica.html))

This site highlights scuba diving expeditions in Antarctica. Lots of great photographs from under the ice as well as information about what it is like to dive under the ice in Antarctica.

**Earth's Polar Regions** ([www.windows.ucar.edu/tour/link=/earth/polar/polar.html](http://www.windows.ucar.edu/tour/link=/earth/polar/polar.html))

The polar regions section of the Windows to the Universe site provides nice background information on a variety of polar topics. There are also a few nice lessons, mostly targeted at upper elementary and middle school aged students.


The website for the Polar Husky Go North! project. This project allows classrooms to participate in an online adventure learning as a team explores the Arctic by dogsled. There are lots of lessons provided in the curriculum guide that accompanies each expedition.

**IPY-ROAM Education** ([ipyroam.utep.edu/education](http://ipyroam.utep.edu/education))

This is the education site from the International Polar Year - Research and Educational Opportunities in Antarctica for Minorities (IPY-ROAM) program. There are a few lessons, mostly for middle and high school, as well as a nice image and movie gallery. The glossary provides nice information, especially related to the flora and fauna of Antarctica.

**Norwegian-American Scientific Traverse of East Antarctica** ([http://traverse.npolar.no/education-outreach](http://traverse.npolar.no/education-outreach))

This is the education page of a joint Norwegian-American traverse of East Antarctica. The education page provides some polar puzzles (mostly math/logic), links to some other educational sites, and a set of questions that students can research. The site also has information related to the traverse, including an expedition diary and more detailed information on the scientific research carried out by the team which would be interesting to older students.

**Penguin Ranch** ([antarctic.ucsd.edu/index.htm](http://antarctic.ucsd.edu/index.htm))

The website of a research project studying the ecology and diving physiology of emperor penguins. The photo gallery has some really nice penguin photos. The science and journal sections provide a nice overview of the research and a glimpse into life in Antarctica.


This site is specifically about penguin research in Antarctica. They have lots of classroom activities as well as videos from the penguin colonies where they are doing their research. Additionally, there is an entire page of audio file with information about the different types of vocalizations that penguins make.

**Polar Science Station** ([www.literacynet.org/polar/index.html](http://www.literacynet.org/polar/index.html))


This website is the home of two projects relating to polar science. There is also a nice background information section, "What is polar science?", as well links to activities and more information about polar science.
This website focuses on a research project about persistent organic pollutants (POP). The website provides background on POP's and the project as well as a journal kept by a teacher who participated in the research. There are also lessons created by the teacher. There are some nice math problem solving ideas that build off the activities of the researchers.

POLAR-PALOOZA  (passporttoknowledge.com/polar-palooza/)
Polar-Palooza was a touring exhibition that was part of the International Polar Year (IPY). There are lots of great media resources on their site, including audio soundscapes and video podcasts. Make sure you check out the Educators' Corner for activities that you can do in your classroom.

PolarTREC  (www.polartrec.com/home)
PolarTREC gives teachers the opportunity to join a scientific expedition to the Arctic or Antarctic. All of these teachers keep online journals of their trips and these journals can be found here organized by expedition. There is also a nice set of lessons and other resources in the "Learning Resources" section.

SnowSTAR 2007 | Barrenlands Traverse  (www.barrenlands.org/MainPage.html)
This website chronicles the traverse of the North American Arctic. Although the project has concluded the journals from the trip provide nice insights into what it is like to travel across the Arctic as well as information about some far northern communities.

Teachers Experiencing Antarctica and the Arctic:Activities  (tea.armadaproject.org/tea_activities.html)
The Teachers Experience Antarctica and the Arctic (TEA) is no longer active, but the resources developed by their teacher participants are still available at this site. There are some lessons here as well online journals kept by teachers while they participated in a scientific expedition. The resources are organized by subject area and labeled by grade level.

Teachers' Domain: Polar Sciences Collection  (www.teachersdomain.org/special/ipy07-ex/)
Teachers' Domain is a collection of digital media produced by PBS. This is their special Polar Sciences Collection that was created as part of the celebration of the International Polar Year (IPY). There are lots of resources here and they are browsable by content areas or searchable by keywords. You have to join the site, don't worry it is free, and once you join you can save resources in your folders so that they are easy to access at a later date. The entire Teachers' Domain site is fantastic and this special collection of polar resources doesn't disappoint.