INTERNATIONAL 2007 2008
POLAR YEAR

International Polar Day - Above the Poles

4 December 2008

Who: Anyone interested in the Polar Regions (Students, Teachers, Scientists, Artists, Travellers…).

What: A global community event as part of the International Polar Year (IPY), focussed on 'Above the Poles'.

Why: During the IPY, tens of thousands of scientists, engineers and technicians from around the world study the Polar Regions. Polar Days provide an interactive hands-on way to learn and to get involved.

Where: Schools, communities, and education centres around the world.

When: Thursday 4th December, and throughout the week.

How:

1. Do the activity on the reverse side, or visit www.ipy.org for more activity ideas.
2. Launch a Virtual Weather Balloon showing your location at www.ipy.org.
3. Check back frequently and see balloons go up around the world.
4. Talk with scientists during a live event.
5. Learn about polar science, become a polar ambassador, participate in future IPY Polar Days.

Learn more about 'Above the Poles' at www.ipy.org

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Polar weather, with extreme cold, fierce winds, and constant wintertime darkness, remains a deterrent and a threat to modern researchers. On a global scale, polar regions provide crucial cooling processes for our climate system, and polar weather in both hemispheres has links to weather as far away as the tropics. The atmosphere over ice- and snow-covered surfaces has unique properties and a remarkable sequence of reactions in the snow and ice influence the chemistry of the polar air. Auroras in both hemispheres provide a glimpse of planetary-scale geomagnetic processes in the outer atmosphere.

Weather Observation Activity

Each day, automated meteorological systems and human observers around the world produce and share weather data through a global network. Predictions centres use the observations to produce global, regional and local forecasts. The quality of these forecasts depends on accurate weather observations from polar regions.

Observe the weather today where you live:

1. Air Temperature – warm, cold? Value in degrees Celsius?
2. Precipitation – do you currently experience rain or snow?
3. Wind – do you observe calm or windy conditions? Did you measure the wind, or observe its effects on trees or flags?
4. Visibility – how far can you see (in metres)?
5. Cloud cover – do you see clear sky, sky and cloud, or only clouds?

Activities:

1. Launch a virtual balloon at www.ipy.org and include your observations.
2. Using the WMO world weather map (http://www.worldweather.org/) and the virtual balloon map, compare your local weather to weather in the Arctic and elsewhere on the planet, and to weather reported by other classes around the world.

Discussion:

1. How do react to your local weather? Do you wear different clothing? Do you choose certain types of transporation? Do you change the heating or cooling of your home?
2. What do these observations tell you about seasonal effects? About local effects? About differences between your location and polar locations?

For global and Arctic weather information, check http://www.worldweather.org/.

Visit www.ipy.org for links to Antarctic weather information and for other activities about auroras, satellite observations, and astronomy.

Produced by the IPY International Programme Office, www.ipy.org
Images: Norwegian Research Council