



## **Schools on Ice - Bringing the IPY to the classroom**

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Education and outreach are integral to the International Polar Year 2007-8. The project "Schools on Ice" within the Austrian FERMAP initiative allows pupils to participate in research on cryosphere processes. In tune with modern pedagogics, learning objects are developed in cooperation of learners (pupils) and tutors (researchers, teachers) where both the scientific and learners perspectives are considered. Learning objects are developed both in the field as well as in the classroom and include experiments with ice, outdoor and online mapping where digital globes (e.g. Google Earth) provide a framework. The learning objects are pretested in schools and will be made publicly available towards the end of the project. The scientific perspective focuses on both arctic and alpine cryosphere. Cryosphere processes and research in Greenland is brought to learners via the thematic link of Global Change, classroom experiments on ice and geoblogs of ongoing scientific research on Zackenberg meteorological station where direct interaction with researchers is possible. Geophysical research in Greenland includes determination of ice thicknesses with ground penetrating radar which is also used for snow analysis and calculation of mass balances. Indications of permafrost occurrences are also mapped. The alpine cryosphere is targeted by monitoring of glaciers and permafrost in Central Austria. The selected area is located at elevations ranging from 2300 to 3100 m a.s.l. As on Zackenberg, a meteorological station (Sonnblick observatory) provides the link to climatic data. Learners (school classes) are directly involved by mapping the changes of glacial coverage and the occurrence of permafrost. The personal experience of observing possible effects of global change and its consequences (e.g. ecology, tourism) onto an accustomed environment will help to develop a sensibility towards a more sustainable perception of nature and its

resources.