**CLASSROOM IMPLEMENTATION STRATEGY**

Timothy Dwyer – Polar Gigantism in Antarctica

*Teaching/Learning goals*

Spring Street International School’s schedule incorporates an 80-minute weekly activity period. Students choose their elective at the beginning of the semester and are committed to this activity for eight weeks. On my return to teaching following my expedition, I will teach a weekly polar science and exploration-based inquiry activity appropriate to sixth and seventh grade students. I will draw heavily on my own experiences in Antarctica while presenting curricular material written by PolarTREC teachers over the years. In the process, students will gain an understanding of some of the major concepts and processes in Biology, Chemistry, Physics, and Geology, as well as an introduction to how scientific questions are tested in the field. Additionally, they will become familiar with polar environments and they will be able to contrast them with what they know of their home environment in the San Juan Islands.

*Activities potentially include lessons in these areas*

* Oceans, ocean circulation and heat transfer on Earth
* Terrestrial food webs in the Arctic
* Marine food webs in the Antarctic
* Saltwater chemistry and physics
* Glaciers and geology at the poles
* Adaptations for life in the cold
* Impacts of climate change on the Arctic and Antarctic

*Assessment*

At the beginning of each class, I will hold a brief (5-10 minute) assessment on the previous week’s class to gauge student learning, tracking individuals and the class as a whole. While the students will not receive an assessed grade for these activities, the feedback will be valuable in evaluating the effectiveness of each selected lesson.