

Appendix D: About Mt. Bachelor

Mt. Bachelor is a volcano in the Cascades that can be seen from all of the participating NiNMoM teachers' towns. It is also the site of the major ski resort in the region. In short, it is a well-known icon to all of the students in the region.

Less known is the fact that the Mt. Bachelor Observatory (<http://blogs.uw.edu/djaffe/mt-bachelor-observatory/>), an atmospheric research instrumentation station, sits in the lift shack at the top of the mountain, collecting a constant stream of atmospheric data. A research group at the University of Washington Bothell runs the station and is a partner in the NiNMoM project. The collected data tell a story about global atmospheric chemistry as well as a localized story of that landscape. Their data on particulate matter tell the global story of how much coal China is burning, whereas the more localized stories of forest fires show up as dramatic spikes in the trend lines.

Similarly, we used the mountain as a site to tell other stories about phenomena, including teachers working on the mountain with a computer scientist, who uses sound waves to detect avalanches, and with a hydrologist, who examines the variables that impact the amount of water present in the snowpack. Teachers also traveled on skis or snowshoes with Ski Patrol members and applied these data stories to the work of avalanche control as they “read” the history of the season’s snowfall through the collected layers of snow (Figure C1).

Real-time data and resources from the Mt. Bachelor Observatory and Dr. Jaffe’s other projects are available [online](#).



Figure C1

Teacher Lisa Kelly examines snow crystal structure with a Mt. Bachelor ski patroller as one piece of datum to tell the story of the season’s snowpack stability.