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Hooking tomorrow's geoscientists: Authentic field inquiry as a compelling pedagogy

Erica Wallstrom
Rutland High School, Rutland, VT, United States (ewallstrom@rutlandhs.k12.vt.us)

Engaging high school students in the geosciences without providing them with opportunities to directly explore, understand, and question the natural world is like trying to catch a fish without a hook. How can educators hope to inspire youth to pursue a career in the geosciences when the subject is first introduced to teenagers within the confines of a classroom? Regardless of the content and activities employed by the teacher, the synthetic classroom setting is unable to recreate the organic richness of an authentic outdoor learning environment. A new course offering at Rutland High School in Rutland, Vermont, USA shifts away from the traditional classroom based pedagogy by focusing the learning on exploring the temporal changes occurring in the region's geologic features. Numerous visits to local quarries, outcrops, overlooks, and universities guide the course curriculum. Students use their new understandings and personal observations to complete a culminating independent investigation. This alternate learning model is made possible through collaboration with local universities, businesses, and government agencies. If the geosciences is to remain competitive in the recruitment of exemplary STEM candidates, than the focus of high school earth science programs must be considered. This course offers one alternative to improve engagement and understanding of the geoscience standards. While not the only option, it offers one possibility for hooking students on geosciences.