High School Students are the Next Generation of Environmental Stewards and Can Play a Part in Mine Reclamation Projects[1]

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Abstract: A short drive from Saint Francis University (SFU) in Loretto, PA is the Kittanning Run watershed, a 2,240-acre watershed with a 3.7-mile stream in Blair County, PA that is severely impacted by acid mine drainage (AMD). The Altoona Water Authority (AWA) and Center for Watershed Research and Service (CWRS) at SFU received support from the Woodard and Curran Foundation and PA Department of Environmental Protection to work on restoring Kittanning Run while also engaging the community in the remediation process. The next generation of environment stewards will be responsible for the future of mine reclamation and water remediation; it is our responsibility to engage, inform, and excite them about restoring watersheds like Kittanning Run. The goal of this study was to involve High School students in mine reclamation through a series of informative lectures on acid mine drainage in their own backyard, hands-on activities in building water quality sensors, and field-based sampling campaigns in the Kittanning Run watershed. Learning outcomes were assessed for each activitythrough student surveys at the end of the program. Students were also asked about their interest in future projects related to mine reclamation after helping restore Kittanning Run. Findings from this work will help inform professionals and educators how various types of education andoutreach programs can excite the next generation of environmental stewards.

Additional Key Words: Engaging High School students in mine reclamation, Education,Learning outcomes, Mine reclamation learning activities for students.

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