Integrating research and teaching: tracking arsenic in the environment

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Award # CHE 0316181 PI Julian Tyson

Coming up with questions about arsenic

Teachers learn how to measure As during summer research

Working on a science fair project

Presenting at the science fair

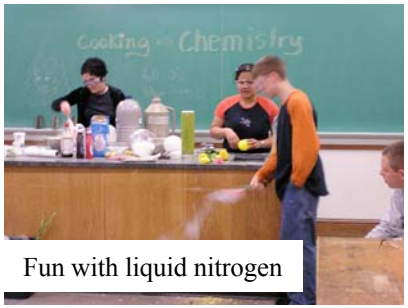
Award of prizes

Scientists at UMass are working with middle school students to investigate the fate of arsenic leached from wood pressure-treated with chromated copper arsenate. Students work initially on a class project investigating arsenic in a park near their school. In the second semester, they work in small groups on projects that they devise themselves. Issues about arsenic from sources other than pressure treated wood are investigated. To support these investigations, UMass graduate student, Richmond Ampiah-Bonney, is developing chemical analysis technologies to measure arsenic compounds in soil, plants and water that can be used in schools. Richmond works with teachers on summer research experiences and helps in the classroom. At the end of the second semester a science fair was held at the school; earlier in the semester, selected students participated in a science fair at the National Organization for the Advancement of Black Chemists and Chemical Engineers, winning first and third place prizes. Students visited the Chemistry Department at UMass for a demonstration filled field trip.

Taking a wipe sample

Richmond helps out in the classroom

Using the Hach test kit.



Fun with liquid nitrogen

Winners at NOBCChE