

[Introduction music]

Narrator: The MRSEC RET Program is a 6-week summer experience for teachers where they are placed with an advisor and that advisor's graduate students in a lab setting. They have the opportunity to learn from that advisor and the graduate students that they're working with about current research that's happening here at the University and then they are encouraged to find activities that will bring that experience back into their own classroom in a meaningful way for students.

[Let's meet some previous RET participants!]

[What was your RET project?]

Sarah Schoeller, White Bear Lake: My project has been to develop high school chemistry lessons that utilize dystopian literature to increase student engagement in learning chemistry topics.

Cassie Knutson, White Bear Lake: My RET project has expanded from middle school mystery investigations to smart phone calorimetry projects to green chemistry experiments that introduce students to principals of green chemistry through the exploration of medical sutures.

Emily McDonald, Shakopee: My RET project was to adapt a lab that allowed my students to explore what GMOs are. I adapted it to make it work at the high school level with limited supplies and not with the proper laboratory equipment.

[How has the MRSEC RET Program benefited you, your students, and your classroom?]

Sarah Schoeller, White Bear Lake: The RET program has benefited me by allowing me to explore a project that interests me and also allowing me to connect with my school's language arts teachers to work across different curricula. This connect and cross-curricular work shows students that science doesn't belong solely in a science classroom.

Cassie Knutson, White Bear Lake: The RET program has benefited me by introducing me to a network of professionals that have helped support my instruction at the high school level. The RET has benefited my students by giving them authentic experiences and connections to University professors and graduate students that allow them to feel like their work is more meaningful and it gives them a totally different perspective than what I am able to offer to them.

Emily McDonald, Shakopee: The RET program has benefited me because I was given an opportunity to work in a real lab setting and to bring those experiences and techniques back to a high school classroom and I believe that has benefitted my students and my colleagues because I'm able to share some of those techniques and lab experiences with them to engage our students in proper scientific laboratory techniques in a high school setting.

[What has been the impact of your RET experience on others?]

Sarah Schoeller, White Bear Lake: Students in my class gain a unique and memorable experience with these dystopia lessons. We are gathering student engagement data in my classroom from these lessons and will be publishing our results in *J. Chem. Ed.* [Journal of Chemical Education] to have potential impact on other teachers and students.

Cassie Knutson, White Bear Lake: I feel my RET work has impacted other teachers by publication in the *Journal of Chemical Education* and I've also had the opportunity to present various projects I've worked on to various audiences of other professionals and chemistry teachers.

Emily McDonald, Shakopee: The impact that my work has had has benefited me, my students, and my colleagues. Students are being exposed to science techniques that they may not be exposed to until upper-level classes at the college level. It's also benefited my colleagues because we've been able to bring techniques into the classroom that have not necessarily been done in a public high school due to lack of resources.

Cassie Knutson, White Bear Lake: RET participants continue to meet during the academic year with one another to encourage and support one another, to learn from one another, and then at the end of the academic year in May RET participants are given the opportunity to bring their students to the University of Minnesota where the students participate in a day filled with demonstrations and lab tours and they give... they participate in a poster session in which they present work that they've been doing in their own classroom to an authentic audience of graduate students and professors here at the University. During the second year of participation in the program RET participants are encouraged to work towards publication of their projects, or find a means of sharing their work with other teachers.

[For more information about the MRSEC RET program contact Phil Engen: engen@umn.edu]

[Applications due February 15]