

College students reinvigorate classrooms

POCATELLO - In the pursuit of science, students in Highland High School's Environmental Academy conducted a controlled burn Tuesday, supervised by the Pocatello Fire Department.

They chose to burn a small plot of land behind the school's track and football field as the first step in a native plant re-vegetation project.

In addition to the native plant project, the controlled burn gave the students in Markette Kelemete's class the opportunity to conduct experiments led by student teacher and Idaho State University biology graduate student Heather Bechtold.

The partnership between ISU's college of engineering and college of arts and sciences and School District 25, Sho-Ban High School and School District 91 in Idaho Falls brings college students into kindergarten through 12th-grade classrooms as part of the GK-12 program, which is funded by a National Science Foundation grant.

"It is a great way of getting teachers excited about doing real science experiments with their students, and it gives them experience in doing that, in leading those experiments," said GK-12 project coordinator Hannah Sanger.

"It gives students a mentor. They see a scientist, a career path, that they might not have seen before," Sanger said.

Kelemete said she feels fortunate to have Bechtold in her classroom this year.

"I am looking to her guidance to get a lot of projects I can carry out throughout the year," she said. "Sometimes as teachers, we get caught in a rut in the classroom. It's been really good for me to get back into the field and think about research-based projects for my students," she said.

The controlled burn is the first step in the student-led research project to revegetate a part of the Highland High School hillside. "We will add native species afterward to create a more natural ecosystem," Bechtold said.

Students also analyzed how hot different fuel sources burn and what effect moisture has on soil and surface temperatures.

Pointing infrared thermometers at the three experimental burns, students could tell how hot the straw pile, the wood pile and the wood chip piles burned.

They also buried metal strips marked with varying heat sensitive paint in the piles to help determine temperatures.

The class of about 15 students watched the firefighters set fire to the brush and experimental fuel piles, taking pictures and asking questions.

"This is an educational experiment to expose them to the scientific method," Bechtold said.

Projects such as the native rehabilitation and the fire fuel experiments offer hands-on, inquiry-based learning, she said.

"If I were teaching them about fires in the classroom, they probably wouldn't be listening," she said, "but here,

they are excited, they are interested."

The students in the Environmental Academy chose to focus on native plants.

"If we don't stop the non-native plants, the natives will die out and we'll only have this," junior Jeff Fellman said, pointing to a hillside covered with more non-native plants than native species.

It may take all year to eliminate the shoulder-high vegetation on the hillside and reintroduce sagebrush, rabbit brush, great basin wild rye and native grasses.

"We don't have a lot of sagebrush, we need more of it," said senior Justine Bisharat. "(The hillside) will eventually be totally native."

Highland's Environmental Academy is just one of School District 25's 13 Academies at the district's high schools that make up the bulk of the district's professional-technical education program.

The Environmental Academy is available to students from all the high schools, said District 25 Director of Professional-Technical Education Linda Marley. "We need students to take advantage of that opportunity or we may lose this academy and any others with low enrollment."

Academies provide a niche for students with specific focused interests, she said. "We hope they all know about these academies, and if they have an interest in one, they will go see their career development facilitator."

The Environmental Academy is a great opportunity for students interested in the natural world and how they can use the technical skills they will learn to help benefit the natural environment for everyone, Marley said.

"I never had a favorite class, until now." Bisharat said.

She plans to apply to Boise State University this fall and pursue her newfound interest. "I want to major in anything science," she said.