

CENTERING ON SCIENCE

TOMMY NEWTON



FROM THE AIR WE BREATHE AND WATER WE DRINK TO THE CARS WE DRIVE AND HIGH-TECH GADGETS WE USE, SCIENCE IS A PART OF OUR EVERYDAY LIFE.

In the classroom, science is a part of the everyday curriculum from kindergarten through high school. Trying to get students or parents interested in science, however, is another story.

That's where Karen Powell, the Bowling Green Community College, and the Community College Regional Science Resource Center come in.

The community college at Western Kentucky University has received a \$295,410 Fund for the Improvement of Postsecondary Education (FIPSE) grant from the U.S. Department of Education. FIPSE is funding 75.7 percent of the three-year project. Western will contribute \$94,949 or 24.3 percent.

Dr. Powell is director of the project that aims to increase student interest in science, impact the science curriculum, boost science scores on standardized tests, im-

prove teacher education programs in science, reduce dropout rates, and increase access to postsecondary education.

The Community College Regional Science Resource Center could have an impact on the local, state and national levels. Locally, the center should increase student interest with hands-on learning. Statewide, the center should boost the number of people seeking postsecondary training. Nationally, the center should serve as a model for the concept of meeting the community of needs for science education.

"I came up with the idea," Dr. Powell said, "while working with local students on science fair projects and I realized what limited equipment they have. I thought it would be nice to have a facility for our community college students, middle school students and teachers."

The Community College Regional Science Resource Center "will give middle school teachers and students a well-equipped laboratory to visit for extensive experiments," she said.

Dr. Powell hopes the center's work with students and teachers will lead to improved scores on the Commonwealth Accountability Testing System exams. In Kentucky, fewer than 2 percent of middle school students score "proficient" on the standardized tests of science knowledge.

"We're having a problem getting students motivated and interested in science. If students aren't interested in science in middle school, they're less likely to be interested in science in high school or postsecondary schools," she said.

"Today you've got to have basic science knowledge," Dr. Powell said.

Waiting until students reach high school to implement innovative educational programs is often too late to impact academic success or failure, according to Dr. Powell's FIPSE grant application. Targeting middle school students, their parents and their teachers may be the key to improving Kentucky high school graduation rates and increasing levels of participation in postsecondary education programs.

Western has even committed to award scholarships of \$100 and \$250 to students who improve their science scores on the CATS tests. "We believe we must get the at-

said. "She was the catalyst," Dr. Powell said. "She was the bridge between Sponsored Programs and us."

Dr. Frank Conley, Dean of the Community College, said he was pleased that Dr. Powell and Ms. Johnston were successful in their application for the FIPSE grant.

"Grant supported activities will help the Community College achieve its strategic plan goals and the Council on Postsecondary Education Action Agenda items of improving students' readiness for college, increasing college enrollments and graduation rates, preparing graduates for life and work, and contributing to the economic development of the state," Dr. Conley said. "This project should help more students in our service area decide to pursue post-secondary educational opportunities and get them excited about pursuing science as a career."

The Bowling Green Community College is uniquely positioned to offer the services, Dr. Powell said. "We just feel like we have a lot to offer, having a Community College philosophy and being an integral part of Western and its tradition."

The Community College has a fully equipped science laboratory that is used for chemistry and biology courses, but faculty members determined that a significant amount

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tention of middle school students about the importance of good performance in school and getting them to at least focus on the possibilities of going to college before high school," said Dr. Luther Hughes, Associate Vice President for Enrollment Management.

Kentucky ranks 46th in the percentage of the adult population graduating from high school and has fewer than 53 percent of those with a high school diploma seeking any kind of post-secondary education. In the six-county region surrounding the Community College Regional Science Resource Center, less than 4 percent of the adult population has any education beyond the high school level.

Today every job requires science knowledge and skills. Parents and children must recognize education is a necessity for economic growth and survival, she said.

Barbara Johnston, Coordinator of Enrollment Services at the Community College, was instrumental in developing the grant proposal and obtaining the funding, Dr. Powell



PHOTO BY SHERYL HAGAN-BOOTH

of laboratory time could be made available for middle school students, teachers and parents in the evenings, Saturdays and during school breaks.

The hands-on, innovative approach should get middle school students and their parents excited about science, Dr. Powell said.

The project, however, goes beyond the middle school level. The center will be used by science education majors and their professors from Western, by kindergarten through high school teachers for in-service science education, by parents of middle school students during field trips and by students working on science fair projects.

"The center is pulling together a lot of resources and gives us all a good place to do science instruction," Dr. Powell said.

The partners in the Community College Regional Science Resource Center make this effort truly collaborative in nature. State and local administrative, academic and support units will benefit.

Several Western academic colleges, centers and programs within the colleges will assist with the grant. Western's College of Education and Behavioral Sciences will incorporate the center's program into the curriculum for middle school science education. Its Center for Gifted Studies will integrate the center into its summer educational programs and its winter Super Saturday program. A support unit in the college, the grant-funded Education Talent Search program to better prepare students for college, will use the center for field trips, after-school programs, and a two-week summer camp.

The Center for Science, Mathematics and Environmental Education (CSMEE) will benefit because its Eisenhower grant is science-based, and it works with public school teachers at the elementary and middle school levels to enhance their content knowledge, which is sorely needed in the state. The CSMEE serves both the education and science colleges. Therefore, teachers of science and in-service educators, and students enrolled in workshops

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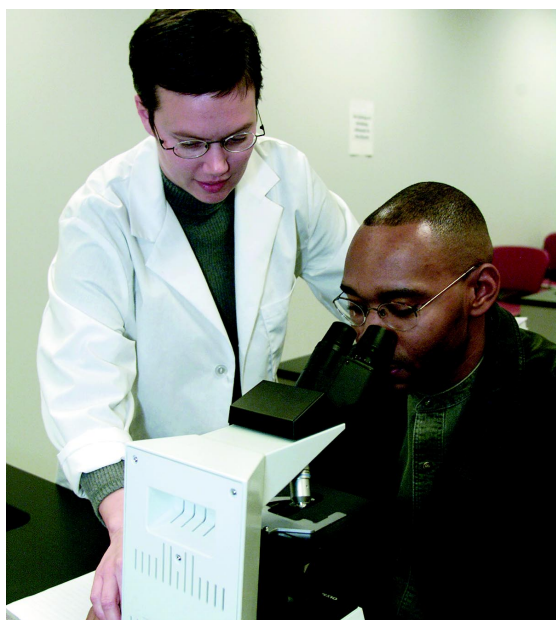


PHOTO BY SHERYL HAGAN-BOOTH

offered by the CSMEE can use the center to enhance their content knowledge, teaching skills and general science learning with real experiments.

For Ogden College of Science, Technology and Health, the center will provide middle school and high school students with access to research facilities, professors, and University students working on science projects.

Campus-wide support units will also benefit from this center. The Office of Minority Student Support Services will expand the "Youth University" program to include the center's programs.

With all these partners to help and serve, work is already under way at the Community College Regional Science Resource Center. Programs will begin in the spring and summer of 2001 with services expanding over the three-year grant period.

"This lab is going to be busy all summer with students doing science projects in a science lab," Dr. Powell said.