

# Students and environment win with Adopt-A-Watershed

Students learn that all forms of life are interconnected and that they can make a difference in their neighborhoods. Agencies get help solving water quality problems. Communities reap a cleaner, healthier environment.

These are just some of the benefits of Knox County's Adopt-A-Watershed program, according to Tim Gangaware, associate director of the University of Tennessee's Water Resources Research Center.

"The idea is to encourage middle and high school teachers to bring science to life for their students by using watershed-related activities," Gangaware said.

"These hands-on activities help to make abstract subjects - biology, chemistry, and geology, for example - relevant and meaningful," he said. "Students are encouraged to identify problems in their watersheds and develop community service projects aimed at solving them."

Students currently participating in the program developed by a national, nonprofit organization are in the classes of 13 teachers from Powell, South Doyle and Halls middle schools and Farragut, Fulton, South Doyle and West high schools.

"These are mostly urban kids who don't know a lot about nature," says Mary Jane Kirkham, an ecology teacher at Fulton High School. "[The program] brings real life into the classroom, and students are receptive because they get to go outside."

Fulton students are checking First Creek's pH to learn about chemistry, building relief maps to better understand watershed

For more information on how you, your school, or your neighbors can get involved in the Adopt-A-Watershed program, call Tim Gangaware or Ruth Anne Hanahan at the Tennessee Water Resources Research Center at 974-2151.

Right, Farragut High School student Bryan Motz evaluates conditions of Turkey Creek as part of an Adopt-A-Watershed program.

Below, kids take part in stenciling signs that say "dump no waste-drains to streams" beside storm drains.



geography and examining the animals and plants living in their watershed to learn about ecology and biology.

Kirkham says students have even honed their English skills by writing about the history of their watershed.

Tonya Chamberlain, a South Doyle Middle School ecology teacher, says classes

with Adopt-A-Watershed activities are among the most popular.

"The word's beginning to get around that learning can be fun," Chamberlain says. "It's very exciting to hear kids say they saw something about watersheds on the news and then explained it to older relatives who were

watching television with them."

"Service-learning" is one of the most important parts of the Adopt-A-Watershed program, says Gangaware. "By being involved in solutions, students learn that they themselves have the power to clean up their environment. Adopt-A-Watershed nurtures students' sense of stewardship toward their environment and encourages them to develop a habit of community involvement that will stay with them all their lives."

Tony Norman, a West High School ecology teacher, has encouraged his students to get involved with the neighborhoods surrounding the school. His students have stenciled "dump no waste-drains to streams" signs on storm drains, cleaned up a nearby

stretch of Third Creek, and planted native plants along stream banks.

The Knox County Adopt-A-Watershed program is a partnership effort. It is managed by the Water Resources Research Center, along with other Water Quality Forum members. The Knox County school system provides equipment and funds teacher training, and the Community Action Committee AmeriCorps Water Quality team members help teachers plan and carry out classroom and field activities.

"The Water Quality Forum would like to see the program expand," says Gangaware. "We hope to involve more schools in Knox and adjoining counties next year. Plus, we want to introduce watershed-related activities into community and after-school programs so that everyone can be involved."

Each person in the United States uses on average 100 gallons of water each day at home.  
What's all that water used for?  
Flushing toilets 35 gallons  
Taking baths/showers 28 gallons  
Washing clothes 18 gallons  
Running faucets 13 gallons  
Washing dishes 3 gallons  
Other activities 3 gallons

