

STEPHEN MORTON

The Georgia Department of Education's goal to "do science, not view science," must be deeply satisfying to the University of Georgia's 4-H Environmental Education faculty. At the heart of the department's performance standards for science is the sentence, "Hands-on, student-centered, and inquiry-based approaches should be the emphasis of instruction."

One of the largest residential programs in the country, Georgia's EE program is as hands-on as it gets. More than 34,000 students get their hands, legs and hearts immersed in the science of their surroundings at five 4-H centers across the state each year.

Diane Davies, considered "the

godmother of environmental education in Georgia," created the program at Rock Eagle in 1979. It was expanded to Jekyll Island, Burton on Tybee Island, Wahsega in Dahlonega and Fortson in metro Atlanta, all Georgia 4-H centers.

Aligned with the state's performance standards, the science education delivered at the 4-H centers is serious.

"We've worked with the teachers to provide pre- and post-trip activities with their pupils to enhance the hands-on, inquiry-based learning they get when they're here," said Donna Stewart, the Rock Eagle EE coordinator. "This is not just a field trip for these kids. It's a field study."

Students learn subjects based on the

center they visit. Burton offers beach and marsh ecology, plus marine animals and hydrology studies. Wahsega spotlights forest ecology, geology and soils, stream ecology and wildlife. Fortson, the newest center, will open this year with pond, forest and wetland ecology classes. All centers offer residential programs with day and night classes.

Rock Eagle, the largest of the centers with 14,500 students each year, offers day classes in ecology, living history, outdoor skills and team building. At night, students tour the Natural History Museum, play Native American games and learn about sensory awareness, snakes, raptors, endangered species, watersheds and environmental issues.









On the coast, Jekyll Island 4-H Center Director Melanie Biersmith and her staff focus their program on maritime forest and salt marsh ecology. Just a short walk over the dunes, the beach and Atlantic Ocean serve as nature-made classrooms.

Jekyll hosts close to 11,000 students each year from throughout the South. "We have one school from Clayton, Missouri, that's been coming here for years," Biersmith said.

What surprises Biersmith most is the number of students who have never seen the beach.

"Their eyes are wide open the whole time they're here, and they're constantly asking 'What's this?' or 'What's that?,'" she said. "The trees and the soil are different from what they have back home, and the climate's different because of the constant breeze."

But if the students and teachers think they're coming to the beach for a vacation, they're in for a surprise.

"We start classes at 8:15 in the morning and we get done at 9 at night," she said. "For the most part, it's go, go, go. We have to keep the program going to cover the material in three days."

The entire Georgia EE program is school time intensified. But it's fun and eye-opening, too.

"Teachers often tell us their students learn more in two days than they do in their classrooms in three weeks," Stewart said.

Sometimes teachers learn more about their students, too. "Kids who don't do well in structured classes may shine out here," she said.

They slog through mud marshes, sand beaches or forest litter, wade oceans and streams and peer through microscopes at samples they collect themselves. Their chatter signals their learning: "Wow!" "Look at this!" "Hey, neat!"

With a capacity of 500, Rock Eagle has the easiest EE program to get into. "Teachers pretty much book their next year's trip when they come here each year," Stewart said. At the smaller centers, competition for time is more intense.

"For many of our students it's a first experience at the beach or in a forest," said Halley Page, who teaches gifted students at Fowler Drive Elementary School in Athens. Her class was the first from her school to attend the Jekyll Island program.

"When I saw the look on their faces and the excitement in their squeals when they saw the ocean for the first time," Page said, "I knew it was an opportunity that we needed to provide to all of the students at Fowler Drive. Luckily, I have a principal and other teachers that have helped make that dream come true. Our fourth graders go to Rock Eagle and our fifth graders go to Jekyll each year."

It isn't easy to teach science to students who don't have much experience outdoors. "The 4-H centers help provide an environment where the students use all of their senses to learn the concepts we've tried to teach in the classroom," Page said. "They provide the hands-on, feet-on experiences needed to make these concepts meaningful to our students."

A faculty of about 50 includes a coordinator at each center and seasonal instructors who teach most classes. Most of the latter have fresh degrees in biological sciences or outdoor recreation from all over the country, including a small but growing number from UGA.

"We have some with degrees in English or history," Stewart said. "The



main thing is that you have to enjoy working with kids."

Biersmith's bachelor's degree in biology and master's degree in science education gave her the knowledge she needed. But her experience as a former classroom teacher helps her and the teachers she hosts.

"I know what it takes for the teachers to plan a trip like this, so I'm more receptive to them," she said. "I remind my staff that the teachers have planned for months for their three days with us. We do this hundreds of times, but for the kids, they just get one experience with us."

Environmental education, Stewart said, is becoming more important as people become more distanced from nature. She cites a little girl in Richard Louv's book, "Last Child in the Woods," whose favorite place to play is indoors because "that's where the outlets are."

"We get them out here and let them explore and discover that they don't have to be plugged in to have fun," she said. "We want to make nature connections with the kids. It's so important in all parts of their lives. We let them play outdoor games their grandparents would have played, and the kids laugh and just have a great time. It's rewarding to watch."



The dirt that covers Diane
Davies' hands these days comes well
cleaned and prepped for a good
pounding. Even though she's retired,
the "godmother of environmental
education in Georgia" doesn't stray
too far from her roots, and her pottery
wheel

She spins her clay about as fast as she spins her environmental education memories, and both are something she's passionate about.

In 1979, then Rock Eagle director Tom Rodgers hired Davies to start an environmental education program at the camp. He gave her six months and an annual budget of \$300 to make the program work. Seven years later, the program had served 5,000 students, and Rodgers let Davies hire her first staff person.

"The staff we brought in deserve a tremendous amount of credit," she said. "I was just fortunate to have started it. It was quite a challenge, just like pottery. I guess I just love a challenge."

One of the largest environmental education programs in the United States took off. As it grew, it "was

recommended that it be dispersed," Davies said. The program continued to grow on at Rock Eagle as well as Jekyll Island, Tybee Island, Dahlonega and Atlanta.

"I loved seeing the buses roll up," she said. "It was just wonderful to see children enjoying nature. It's vital for children to have a connection with the land."

Now, according to Davies, the program she started has touched the lives of more than 700,000 in some way.

"I just thoroughly enjoyed my work," she said. "I knew I was making a difference every day.

"When I decided to retire early, it was a hard decision because I loved it. I was very fortunate to live my passion through work, to see the benefit of my work on children."

Now her desk is a potter's wheel, and her office is a converted barn.

"For me, now with the pottery, I feel like I've come full circle," Davies said. "It really is like coming home for me. Everything about my life has been connected to the land, connected to the earth." — Stephanie Schupska