



Hula Hoops, bubbles and plate tectonics

**A College of Education service-learning program
is one way the state is trying to draw more
students into the STEM fields**

by Kelly Simmons

photos by Andrew Davis Tucker

Yasmin Hudson's hips move ever so slightly as the Hula Hoop twirls around her waist. As she sways, she chants, "Ninety percent of all volcanoes erupt at the bottom of the ocean where plates are spreading apart."

She repeats the sentence again and again, as many times as possible in one minute—or before the hoop hits the floor.

"One minute," says Nia Clark, as Yasmin lets the hoop fall. "You said it 13 times."

That task completed, the sixth graders run to the next "station" set up in the Hilsman Middle School media room. This time they're at a computer terminal answering questions about the layers of the Earth. During the two-hour program, the girls, along with a dozen of their schoolmates, will dissect chocolate bars, blow bubbles and putt golf balls—all in the name of science.

The after-school program is a hands-on experience for students in UGA's College of Education, who may one day go into teaching in the area of science, technology, engineering or math (known as the STEM fields.) Funded by the University System Board of Regents, it is one of several efforts under way to encourage education majors to pursue teaching careers in the STEM fields. Starting in 2010, first-year certified secondary school math and science teachers in Georgia will be paid at the level of a fifth-year teacher, an incentive approved

Sixth grader Natalie Stanley tries to Hula Hoop for a full minute while she recites a science fact she may need to know for the CRCT.



Above: UGA instructor Marianne Causey cheers sixth grader Tre Thomas' accomplishment during a competition to see which students can answer the most questions correctly in the least time.



UGA senior Ngoc Tran, a finance major, helps sixth-grader Hannah Sweetser answer questions about the Earth on the computer.



Right: UGA junior Megan Edel watches as sixth grader Antoinette Starks blows bubbles toward a target illustrating the layers of the Earth.

by the state legislature.

Twice a week the STEM Dawgs, as the UGA class is known, travel to two schools in the region, Hilsman in east Athens and Benton Elementary School in Jackson County, to help the kids prepare for the science portion of the Criterion Referenced Competency Test, which is given to Georgia public school students each spring.

Unlike student teaching assignments, which all education majors must fulfill before graduating, this program is an elective. It gives students a chance to get a real feel for teaching science and math by creating innovative programs for the children and implementing them.

"You get involved with the kids. That's cool," says Fidel Agbor, a junior finance major. "It's a nice perk."

Agbor is at a table with plastic knives and fun-size Snickers bars. He

tells the students to put the blade of the knife against the top of the candy bar and push down.

"We're simulating breaking the (earth's) crust," he says.

"The crust is the chocolate," observes Trey Thomas, a sixth grader at Hilsman. He and Agbor then rub the two pieces of the candy together simulating the way the earth's plates move during an earthquake.

Junior education major Cindy Jones, who wants to teach science, appreciates the hands-on experience she's getting at the same time as she's earning class credit. For her class "project"—each of the UGA students is expected to come up with one—she had the students create moons using glitter paint. They then held them up and turned in a circle in front of a beam of light to show the phases of the moon.

"They're amazing," she says of the students. They're so much more advanced than I was at that age."

The class is a living laboratory for the students, says Marianne Causey, an adjunct lecturer at the College of Education, who designed the course's objectives in accordance with the Georgia Performance Standards. Causey taught in the Clarke County public schools for 31 years.

"I'm a veteran teacher," she says. "They get to see me interact with the kids. They have to figure out 'how do you take something as dry as plate tectonics and engage kids?'" **GM**

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