Kids learn scientific method from ASU graduate students

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JONESBORO — Fifth-grade science students at Nettleton Intermediate Center learned about the scientific method Thursday with the help of Arkansas State University graduate students.

Students learned about the physiology and behaviors of termites from ASU grad student Bree Furfey, who the students call their "resident scientist."

Students formed hypothesis about how they expected the termites to behave when allowed to roam free on a piece of paper, marked with a variety of markers. They then tested the hypothesis and formed conclusions based on the evidence they collected.

"So you guys tested your hypothesis and found that the behavior the termites had basically the same thing that was in your hypothesis," Furfey said to the class. "So you guys did an excellent job. They were following the scent as you all hypothesized."

Furfey explained that termites, like many insects, create chemical trails for other termites to follow. The students used different pens and markers on paper, which mimics the scent of the chemical trail or pheromones termites give out.

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Nettleton Intermediate Center fifth-grade students study the movements of termites as part of lesson on the scientific method. Discussing their findings are (from left) Maegan Ford, Piper Stallings, Sabastian Anderson and Austin Bailey.

Furfey is one of three ASU science graduate students who work with NIC as part of a grant called GK12 which stands for Graduate STEM Fellows in K-12 Education. STEM stands for science, technology, engineering and mathematics.

"It's a five-year grant and this is our last year," NIC principal Debbie Bean said. "The kids just love it. It really motivates the kids to see that these are scientist, but they're also just normal people."

ASU students also work with other school districts in the area, and with grades 5-8.

As part of the school's partnership with ASU, science teachers at NIC spent a week during the summer training with the ASU grad students to come up with the lesson plans for this year.

"They really build bonds between them and that opens up a lot of doors and communication with that department of ASU and our science teachers," Bean said. "This year we have three ASU students and that'll cover all of my fifth-grade students."

"It's been great," science teacher Wendy Peppers said. "The kids, it's funny, if you ask them what does a scientist look like? Everyone of them will draw a picture of Einstein. And you know, she's a scientist, and the kids see that she's just a normal person."

Furfey said she enjoys talking with non-scientist about what she's passionate about.

"It teaches you to communicate science to a different crowd and on a different level," Furfey said. "Because usually I'm just communicating with people who are also scientists. I enjoy working with this age group, they're great. Those how and why questions that they do every single day, they don't really realize that that's science."

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"Resident scientist" Lana Elkins (left) discusses the findings of an oil spills experiment with students Gabriel Gonzales (center) and Isaiah Aldaco at Nettleton Intermediate Center in Jonesboro on Thursday. The students were getting a lesson on the scientific method. Elkins is one of three graduate science students at Arkansas State University who work with the school's fifth-grade science classes as part of a grant program.

In Jamie Stephen's fifth-grade science class, an experiment of a different sort was underway.

"We are doing an oil spill activity to reinforce what we've been learning the last two weeks about scientific method," Stephens said. "We learned all about the BP oil spill and they got really excited and were asking about how big it was and how did they clean it up. The kids are testing out what the best materials for cleaning up the spill is. We did one in fresh water and now we're working with one in salt water. They're testing out their hypothesis right now."

"Resident scientist," Lana Elkins who is a grade student in the molecular biosciences program at ASU, helped students test their hypothesis, collect data and draw their conclusions during the experiment. She said she enjoys her time in the classroom.

"They're awesome," Elkins said of the kids. "I really enjoy working with them. It helps me learn to communicate in a different way."