

## Students complete an experiment every week with new lab

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Tuesday, March 30, 2010

Frog dissection and slime making may not be the most appropriate dinner-table talk, but parents and teachers at Sequoyah Elementary School don't mind.

In fact, they are thrilled. The MAD Scientists Lab at the school has students actually talking about science and raving about what they learned.

The lab, which launched at the beginning of the school year with the help of The Sequoyah Foundation, is one of only two staffed elementary school science labs in the Knox County School District.

Other elementary schools may have a lab room and other teachers may lead experiments on occasion. Sequoyah has a permanent staff member dedicated to leading science experiments, and each student in second-fifth grade completes a science experiment every week.

"A lot of parents e-mailed me and said, 'All my kid wants for their birthday are science experiments. Where can I get what you are doing?'" said Andrea Allen, lab instructor.

Some students even asked for monogrammed lab coats.

MAD stands for Making and Developing scientists.

The program designed to give younger students more hands-on learning and emphasize science and math has caught the attention of the school district, parents and most importantly, students. The school already plans to expand the program to first grade and kindergarten next year and the school district is looking at it as a possible model other schools could use.

"If the conversation makes it home to the dinner table, it's a success," said Theresa Nixon, science specialist with the district.

Fifth-graders Mary Margaret Banick and Carolyn Cantrell said science used to be boring before the lab opened.

"It's the best part of my Thursday," Carolyn said. "We used to do lots of worksheets. I think we've only had one this year and it was fun."

Carolyn's favorite experiment was when she extracted DNA from a strawberry. However, her class has also tested toys for their safety and flown cars with balloons. "We tend to concentrate if we are interacting with what we're learning," Mary Margaret

said. "I love the experiments where I can kind of make a mess."

Each elementary school student is required to have 60 to 90 minutes of science a week depending on age, but the way the subject is presented varies greatly across the 49 elementary schools, Nixon said.

Elementary school teachers are responsible for all subjects and many do not have the time to create and teach full labs, like excavating a sandbox, Nixon said. Also, some are less comfortable than others teaching such labs.

Some schools only let upper elementary grades do experiments.

"Andrea's position is different because she was hired to focus on science," Nixon said.

"Children are curious and science feeds into that curiosity," Nixon said. "We want students to be problem solvers and to understand our complex world. This gives them an opportunity to do it in a safe environment."

Earlier this year, second-graders excitedly made a mess when they created "oobleck" from Dr. Seuss's "Bartholomew and the Oobleck."

"Oobleck" is a white, gooey substance that appears to be a solid at times and a liquid at others. Allen helped the students make it with corn starch and water to teach them about the properties of matter.

"Today we are going to get messy," Allen said. "If it gets on you, just wipe it off."

As the students examined the results, Allen asked, "Could this be a gas?"

"No," they said.

"Is it a liquid or a solid?" Allen asked. "Solids keep their shape when you move them."

The class decided it was a liquid after careful examination.

"People didn't decide to be a scientist because they had a great science worksheet in second grade," Allen said. "It's because they did something cool."

The lab experiments compliment what the students are already learning in class, Allen said. Later in the day, the second graders did another exercise about matter with their regular teacher.

The school district would love to have similar programs at every school, Nixon said, but funds aren't available.

Allen's part-time position and lab materials are funded by The Sequoyah Foundation and grants.

