Space Shuttle and Sea-Monkeys Lift Off Friday | UNCG Campus Weekly

The Space Shuttle Endeavor lifts off Friday afternoon (April 29), for its final flight into space. President Obama will be on hand – as will a small group of Mendenhall middle-schoolers, watching their experiment of tiny brine shrimp go into orbit.

The schoolkids visited the Joint School of Nanoscience and Nanoengineering Tuesday, April 26, as joint school faculty members helped them prepare the experiment. The joint school is a joint academic program of UNCG and NC A&T.

As earlier reported in UNCG Campus Weekly, the students competed with a number of students in Guilford County, to see which group's experiment would be selected for the shuttle flight. The experiment could be no larger than 1/8 inch cubed. That is tiny. And the experts in tiny – the Nano school researchers – have assisted and inspired the young students every step of the way.

The winning experiment involves what many people would refer to as "Sea-Monkeys," but are more accurately called "brine shrimp." One specimen of the miniscule brine shrimp will be on the shuttle as it orbits for two weeks, one will be a control group back on planet Earth. The experiment will look at the effect of gravity on their life cycle.

The young students and their teacher, Lenny Sue French, assembled Tuesday in the joint school's main conference room. The students wore the white lab coats they received at their school assembly when the news was announced. On one side, the official patch for shuttle mission STS-134. On the other, their name.

Dr. Adam Hall and Dr. Joseph Starobin led the students step-by-step through the preparation.

"OK, the next person will add the salt. Who wants to be next?" Hall asked.

"So now, we need to do the brine shrimp extract and the yeast. The yeast is the food."

"We're going to do a simple conversion," Hall later said, moving the students to calculations on the whiteboard. "This is our ratio we need to match."

As the preparations continued, Starobin explained to the students about capillary action in liquids, and how the size of containers affects that action along the edges.

There was a deadline looming: the bus was set to take them back to Mendenhall Middle School. Hall made sure each student had an opportunity for hands-on science in creating the final experiment, all ready to blast into orbit.

The students will take a flight to Florida mid-week, for what one called a once-in-a-lifetime opportunity. None has ever seen a shuttle blast off live, only on two video clips that French has shown them.

Sixth grader Bailey Weikel-Feekes spoke of learning so much about science through this miniscule experiment. "I've learned to think small," she said. "It takes so much more to think little than to think big."

By Mike Harris
Photograph by Chris English
Visual: Dr. Adam Hall advises the Mendenhall Middle School students on science techniques