

FOOD, FIBER, & YOU AT BELTSVILLE ACADEMY

By Jim Butcher

Beltsville Academy students arrived for school on September 29 to find a maroon-colored trailer on the tarmac, just beyond an entrance to the school gymnasium. The trailer's exterior features the words: "Food, Fiber, & You". Other images have students using test tubes, pouring solutions, receiving classroom science instruction, more.

One graphic identifies the trailer by its true name: "Mobile Science Lab" and its organizational parentage, the Maryland Agricultural Educational Foundation (MAEF). Another urges auto owners to purchase Maryland Ag Tags, those beautiful farm-evocative license tags that seem to appear everywhere. A portion of every tag purchase goes to support MAEF educational programs.

Students suspect that something special is up. And they are right. Over the coming nine school days, every class from kindergarten through fifth-grade, some more than once, will visit the Mobile Science Lab. MAEF uses mobile science labs (there are three) throughout the state to promote educational programs in math, language arts, and the sciences. Emphasis on agriculture (meaning: food, fiber and you) is a fortunate one, for modern agriculture demands skills in language arts, math, and the basic sciences, including rocket science. Rocket science? Indeed, the global positioning system (GPS) is as essential to modern precision agriculture as it is to modern navigation.

Inside the Mobile Science Lab, students find a cleverly designed science classroom on wheels. Kid-sized workbenches line either side. Every nook, shelf, and wall teems with eye-catching teaching supplies, images, or materials. They meet MAEF teacher Wayne Buckingham—a master of classroom motivation polished over a 30-year teaching career in Frederick County public schools. Making learning sessions even better, adult assistants help; most of them retired scientists and managers from the nearby Beltsville Agricultural Research Center.

Buckingham leads students through several science "activities" that Beltsville Academy has pre-selected from an impressive menu of choices. A "seeds" activity teaches students to identify corn, soybean, sunflower and other seeds that contribute to many foods. Corn products, he explains, appear in cornbread, cooking oil, margarine, taco shells, and as sweeteners in soft drinks.

Other students learn to spin, draft, ply, and then dye raw wool while creating a take-home bookmark. In another activity, Buckingham puts on a great show telling how cows' milk can yield the curds and whey of Little Miss Muffet nursery rhyme fame. Artfully building emotional tension, Buckingham entices students into a rousing recitation of the beloved children's nursery rhyme. Then, he leads them through a scientific procedure to produce actual curds and whey. Thus, he returns another appreciative classroom teacher to the schoolroom in the company of a class full of smiling youngsters.

What are teachers and school administrators saying? Beltsville Academy Principal Ingrid Reynolds-Lawson offered this: "The Mobile Science Lab was a fascinating, hands-on opportunity for our children, and I am so pleased that FAR-B [Friends of Agricultural Research—Beltsville] continues to support Beltsville Academy." Third-grade teacher Jill Gravitz said, "This was one of the best in-school field trips we have ever had! My students learned so much about the science of germs and the scientific method."

The Mobile Science Labs have drawn attention from Pennsylvania and other states that are interested in creating similar programs. For more about MAEF and its educational programs, go to <http://www.maefonline.com/index.php>. This two-week program was organized and sponsored by the Friends of Agricultural Research—Beltsville, <http://www.far-b.org/index.html>. Funding came from generous gifts from the national headquarters of Sigma Xi, The Scientific Research Society, and from its local affiliate chapter; from Beltsville Academy; and from the Friends of Agricultural Research—Beltsville.

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