Last month, food scientists from Purdue University travelled to Salem, Indiana to teach high school students about food safety. One of the food scientists, Tressie Barrett, graduated from Salem High School in 2010, the same year Family and Consumer Science (FACS) courses ceased being offered to middle school students. FACS at the middle school and a foods course offered at the high school educated students on basic safe food handling techniques, but the cessation of both courses left students without classroom food safety training.

That’s where the Purdue food scientists stepped in. The Purdue food scientists developed food safety curriculum that aligned to “Indiana State Academic Standards for Agriculture Life Science: Food.” This eight-day curriculum provided science-based food safety information to students through in-class discussions and activities that asked students to explain heat transfer into and out of food using heat sensitive, color changing dough, design an experiment to evaluate the safety of unpasteurized and pasteurized apple juice, and assume the role quality assurance team members in a fictitious company to provide solutions to food safety concerns. The Purdue team not only wanted students to learn about food safety, they also wanted to show students opportunities in the field of Agriculture. Barrett commented that she hoped the curriculum would broaden students’ career opportunities.

But the lessons were not all discussions and paperwork. One of the best ways to learn safe food handling is practice. Using their knowledge before any instruction, students took to the kitchens to prepare hamburgers and parmesan zucchini crisps on the first day.

When the students headed back to the classroom for formal food safety instruction, instructors related the concepts they were learning in class back to the cooking exercise. Students learned how to properly use digital and dial thermometers, minimum recommended cooking temperatures for meat, how to properly store food, and the importance of cleaning.

To keep track of what they were learning, students created a photo story by taking pictures that reminded them of the concepts they were learning. For example, students could take pictures of their in-class activities as well as observations in their homes or at restaurants to illustrate each food safety topic they learned. At the end of the mini-series, students presented their photo story to class and described how the pictures related to the food safety principles they learned.

At the end of the course, students were back in the kitchen to prove what they had learned. The instructors commented they could already see a difference in the students’ food handling
practices. After the study concluded, one instructor shared his thoughts and feedback from parents of students who participated in the food safety program, “It was a wonderful experience for both me and the kids, and I have had parents tell me that they felt that the instruction affected how the kids treat food at home and on the go.”
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