

Local Teacher Completes National Food Safety and Nutrition Training Program From Farm to Table, Teachers Explore Science Behind Nation's Food Supply

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WASHINGTON, D.C. – Brandy Hildebrand, a teacher at Fr. McGivney Catholic High School, in Glen Carbon, IL., was one of 35 teachers nationwide chosen to complete a food science training program developed and implemented in a partnership between the Food and Drug Administration (FDA), the National Science Teaching Association (NSTA), and Graduate School USA. The one-week program for middle and high school science, agriculture, family and consumer science, and health education teachers, took place July 10 – 20 in a virtual classroom setting.

The training is part of the FDA Professional Development Program in Food Science, a sustained effort to train U.S. teachers to use FDA's curriculum in their classrooms nationwide. The goal of the program is to educate teachers and students about critical food safety issues such as foodborne illnesses by exploring the science behind them.

The program arms teachers with a unique topic and curriculum with which to teach science. Participants learn about microbiology, nutrition, food allergies, and cosmetics safety from FDA experts.

Teachers also receive nutrition and agricultural biotechnology education material to help teach their students how to use the Nutrition Facts label and other food labeling to make informed food choices.

“Many teenage students have jobs in the food service industry or have food preparation responsibilities at home,” said Louise Dickerson, FDA’s Project Manager for the Professional Development Program in Food Science. “This program will better educate them about the importance of handling food safely and why precautions must be taken. From FDA’s perspective, our professional development program for teachers is an effective way to support the goal of reducing the incidence of foodborne illness in this country.”

The Centers for Disease Control and Prevention (CDC) estimates that 1 in 6 Americans get sick from food poisoning each year. During the training, participants learned firsthand about the development and spread of foodborne illnesses; the vulnerability of at-risk populations; and the science behind safe food handling, storage, and preparation. Teachers also learned how to better use the Nutrition Facts label to assess the nutritional value of foods.

In addition, the teachers heard from FDA scientists and conducted laboratory experiments to further increase their understanding of food science. A supply kit was sent to each teacher to practice laboratory activities as they were guided by a virtual classroom instructor. Activities included investigating how a single bacteria cell can multiply to millions in just a few hours, and observing how different temperatures (heating, room temperature, chilling, and freezing) affect the growth of bacteria. The teachers then explored these concepts by putting their culinary skills to the test: after cooking hamburgers to various temperatures, the teachers tested them for bacteria and other organisms that cause disease.

The food science program is centered on a standards-based curriculum, Science and Our Food Supply, available online for free for any teacher (www.fda.gov/teachsciencewithfood).

The program explores the science behind the production, transportation, storage, and preparation of our nation’s food supply, and includes videos, hands-on experiments and activities, and evaluation tools. The food safety curriculum covers aspects of food science that affect millions of people every day, such as how a trace back investigation is used to stop the additional sale and distribution of contaminated food, and the

likelihood of certain foods to cause foodborne illness more than others. The companion nutrition curriculum offers lesson plans on nutrients to get more of, nutrients to get less of, and meal planning.

The agricultural biotechnology curriculum introduces a range of tools used to select food crops with desired traits. For more information on the Science and Our Food Supply curriculum and to learn how to apply for the FDA Food Science Professional Development Program in Summer 2021, please email isabelle.howes@graduateschool.edu.