



2011 FLL CHALLENGE

resources

The 2011 Food Factor FLL Project builds an understanding of the complex network of individuals, organizations, and regulatory agencies that protect our food. The sheer scope can be mind-boggling, even for adults, but the Project lays the groundwork for understanding the roles that all kinds of careers play in keeping us strong and healthy. Remember that your library; local hospital, school, market, restaurants, farms, food processing facilities; and area agricultural and food service workers, physicians, veterinarians, working scientists, and engineers also can be great resources for your team.

WEB RESOURCES

If you have internet access, there are many sources for information about food safety. Here are some that you may find helpful. Be sure to check all resources before sharing them with team members to ensure that they are appropriate for your team's age and maturity level.

Websites Geared to Youth

How Products Are Made

<http://www.madehow.com/>

Type your team's food into the search box and learn about its history and how it is made.

Kids World — Food Safety

<http://www.agr.state.nc.us/cyber/kidswrld/foodsafef/>

Offers food safety quizzes, a condensed version of FDA's "Bad Bug Book," food safety facts, an electronic coloring book that teaches food safety facts, and links to other food safety resources.

Food safety & Nutrition Information for Kids and Teens

<http://www.fda.gov/food/resourcesforyou/consumers/kidsteens/default.htm>

Sponsored by the US Food and Drug Administration, this site offers links to a variety of food safety topics from handwashing to cross-contamination to food supply issues.

Food Safe Families

<http://www.foodsafety.gov/keep/basics/index.html>

Check out our Clean, Separate, Cook, and Chill pages to see the most effective ways to help keep your family safe from food poisoning.

Food Detectives Fight Bac!

<http://www.fooddetectives.com/>

Cleverly illustrated, fact-filled detective games which teach food safety concepts. Less intuitive than some sites.

<http://usfirst.org/fll> • <http://firstlegoleague.org> • FLL® is the result of an exciting alliance between FIRST® and the LEGO Group.

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Food Safety Games!

<http://foodsafety.uconn.edu/kids.html>

Sponsored by the University of Connecticut college of Agriculture and Natural Resources, this site allows kids to navigate around a school, a home, and a park to find unsafe food situations and answer questions to correct them. Once they have correctly identified 10 situations, they are rewarded with the opportunity to play an arcade-style game.

Food Processing and Its Problems

http://tiki.oneworld.net/food/food_processing.html

Brief descriptions of food processing methods and the problems that can occur.

ScienceNews for Kids: Food and Nutrition

<http://www.sciencenewsforkids.org/?s=food+and+nutrition>

Continually updated with science-based articles on food safety and nutrition, with links to more indepth information.

Science News for Kids: Agriculture

<http://www.sciencenewsforkids.org/?s=agriculture>

Tiki's Guide to Food

http://tiki.oneworld.net/food/food_home.html

Discover Engineering

<http://www.discoverengineering.org/>

Rader's Physics for Kids

<http://www.physics4kids.com/>

Rader's Chem4Kids

<http://www.chem4kids.com/>

http://www.chem4kids.com/files/bio_intro.html

Rader's Biology4Kids

<http://www.biology4kids.com/>

The History of Food and Food Preservation

Medieval Times - Medieval Food Preservation

<http://www.medieval-life-and-times.info/medieval-food/medieval-food-preservation.htm>

Step back in time and see how food was processed in Crusader days to prevent starvation during the winter months.

Mountain House Food

<http://www.freezedriedsurvivalfood.com/1825/a-short-history-of-food-preservation-methods/>

A concise history of food preservation methods from 12,000 B.C. to the present.

The Food Timeline

<http://www.foodtimeline.org/>



Websites Hosted by Nonprofit and Professional Organizations

These websites will help you learn more about careers in food science and food safety. They might also be useful in finding experts in your area. These sites provide good background information for coaches, but rarely contain language that is readily understood by children. Enter the search term Food.

Institute of Food Technologists

<http://www.ift.org/knowledge-center/core-sciences/food-engineering.aspx>

International Association for Food Protection

<http://www.foodprotection.org/>

Center for Food Safety

<http://www.centerforfoodsafety.org/>

World Food Safety Organisation

<http://www.worldfoodsafety.org/2010/>

Engineering in Medicine and Biology Society

<http://www.embs.org/>

American Institute for Medical and Biological Engineering

<http://www.aimbe.org/>

Websites with Career Information

FoodSafetyJobs.GOV

<http://www.fsis.usda.gov/Careers/FoodSafetyJobs/index.asp>

Introduces you to some of the Careers information on our site. FSIS employs nearly 11,000 people in a variety of technical, scientific, professional, and administrative occupations. We have over 8000 food inspector positions located nationwide. FSIS is also the nation's largest employer of veterinarians.

Magazine Articles

Don't Eat That Sandwich!

<http://www.sciencenewsforkids.org/2007/05/dont-eat-that-sandwich-3/>

The mercury in that tuna

<http://www.sciencenewsforkids.org/2010/05/the-mercury-in-that-tuna-2/>

Got Milk? How?

<http://www.sciencenewsforkids.org/2010/01/got-milk-how-2/>

Making Good, Brown Fat

<http://www.sciencenewsforkids.org/2009/09/making-good-brown-fat-2/>

New source for healthy fats

<http://www.sciencenewsforkids.org/2011/04/new-source-for-healthy-fats/>



Podcasts

Geared toward older listening audiences, these short podcasts take older teams, step-by-step, through the process of analyzing threat risks to the food chain.

http://www.fsis.usda.gov/News_&_Events/Food_Safety_Inspection_Podcasts/index.asp

Protecting Food During Transportation (Aug 11, 2009; 4:06)

This episode describes things to consider to protect your food products during transportation.

Illegally Imported and Smuggled Food Products (Aug 11, 2009; 4:12)

Learn countermeasures to minimize the risk of receiving intentionally contaminated products.

Risk Assessment - Introductory Episode (Sep 4, 2009; 6:45)

This podcast focuses on the role of risk assessments and where these assessments fit into the agency's public health mission.

Risk Assessment - Salmonella in Eggs (Sep 14, 2009; 4:49)

This podcast focuses on the risk assessment work the Agency has done related to Salmonella in eggs.

Risk Assessment - E. coli O157:H7 in Ground Beef (Sep 16, 2009; 5:41)

This podcast discusses the risk assessment work FSIS has done on E. coli O157:H7 in ground beef.

BSE Risk Assessment (Sep 23, 2009; 7:58)

FSIS explores the risk assessment of Bovine Spongiform Encephalopathy, more commonly referred to as BSE - or "mad cow disease."

Food Irradiation - Part 1 (Apr 14, 2010; 7:02)

This is the first of a two-part series on the use of irradiation on food products and how the process works.

Online Videos

Birke Baehr: What's wrong with our food system

http://www.ted.com/talks/birke_baehr_what_s_wrong_with_our_food_system.html

11-year-old Birke Baehr presents his take on a major source of our food—far-away and less-than-picturesque industrial farms. Keeping farms out of sight promotes a rosy, unreal picture of big-box agriculture, he argues, as he outlines the case to green and localize food production. At age 9, while traveling with his family and being "roadschooled," Birke Baehr began studying sustainable and organic farming practices such as composting, vermiculture, canning and food preservation. Soon he discovered his other passion: educating others -- especially his peers -- about the destructiveness of the industrialized food system, and the alternatives. He spoke at TEDxNextGenerationAsheville in 2010. Baehr volunteers at the Humane Society and loves working with animals.

Europe's Deadly E. Coli Outbreak a 'Wake-Up Call' Over Global Food Distribution

http://www.pbs.org/newshour/bb/health/jan-june11/ecoli2_06-02.html

A new strain of E. coli sickened hundreds throughout Europe and left health officials baffled. Ray Suarez discusses the outbreak's global impact with attorney Bill Marler (who has worked on foodborne illness cases) and Cornell University food science professor Robert Gravani.

Jamie Oliver's TED Prize wish: Teach every child about food

http://www.ted.com/talks/lang/eng/jamie_oliver.html

Sharing powerful stories from his anti-obesity project in Huntington, W. Va., TED Prize winner Jamie Oliver makes the case for an all-out assault on our ignorance of food.



Jamie Oliver's Food Revolution

<http://www.jamieoliver.com/jamies-ministry-of-food/> (Cooking videos)

<http://www.jamieoliver.com/campaigns/jamies-food-revolution> (School food)

Marcel Dicke: Why not eat insects?

http://www.ted.com/talks/marcel_dicke_why_not_eat_insects.html

Marcel Dicke makes an appetizing case for adding insects to everyone's diet. His message to squeamish chefs and foodies: delicacies like locusts and caterpillars compete with meat in flavor, nutrition and eco-friendliness. Marcel Dicke wants us to reconsider our relationship with insects, promoting bugs as a tasty—and ecologically sound—alternative to meat in an increasingly hungry world.

Ann Cooper talks school lunches

http://www.ted.com/talks/ann_cooper_talks_school_lunches.html

Speaking at the 2007 EG conference, "renegade lunch lady" Ann Cooper talks about the coming revolution in the way kids eat at school—local, sustainable, seasonal and even educational food.

Food Safety Public Service Announcements:

http://www.fsis.usda.gov/News_&_Events/Food_Safety_PSA/index.asp

View the various video food safety public service announcements available from US Food Safety and Inspection Service.

Dan Barber: How I fell in love with a fish

http://www.ted.com/talks/dan_barber_how_i_fell_in_love_with_a_fish.html

Chef Dan Barber squares off with a dilemma facing many chefs today: how to keep fish on the menu. With impeccable research and deadpan humor, he chronicles his pursuit of a sustainable fish he could love, and the foodie's honeymoon he's enjoyed since discovering an outrageously delicious fish raised using a revolutionary farming method in Spain.

Mark Bittman on what's wrong with what we eat

http://www.ted.com/talks/mark_bittman_on_what_s_wrong_with_what_we_eat.html

In this fiery and funny talk, New York Times food writer Mark Bittman weighs in on what's wrong with the way we eat now (too much meat, too few plants; too much fast food, too little home cooking), and why it's putting the entire planet at risk.

Paul Ewald asks, Can we domesticate germs?

http://www.ted.com/talks/lang/eng/paul_ewald_asks_can_we_domesticate_germs.html

Evolutionary biologist Paul Ewald drags us into the sewer to discuss germs. Why are some more harmful than others? How could we make the harmful ones benign? Searching for answers, he examines a disgusting, fascinating case: diarrhea. After years of studying illness from the germs' point of view, microbiologist Paul Ewald believes that Big Pharma is wrong about some very big issues. What's right?

Carolyn Steel: How food shapes our cities

http://www.ted.com/talks/lang/eng/carolyn_steel_how_food_shapes_our_cities.html

Every day, in a city the size of London, 30 million meals are served. But where does all the food come from? Architect Carolyn Steel discusses the daily miracle of feeding a city, and shows how ancient food routes shaped the modern world. Food is a shared necessity—but also a shared way of thinking, argues Carolyn Steel. Looking at food networks offers an unusual and illuminating way to explore how cities evolved.

Amy Smith shares simple, lifesaving design

http://www.ted.com/talks/amy_smith_shares_simple_lifesaving_design.html

Fumes from indoor cooking fires kill more than 2 million children a year in the developing world. MIT engineer Amy Smith details an exciting but simple solution: a tool for turning farm waste into clean-burning charcoal. Amy Smith designs cheap, practical fixes for tough problems in developing countries. Among her many accomplishments, the MIT engineer received a MacArthur "genius" grant in 2004.



PRINT RESOURCES

Food handling and safety measures:

Food Safety (True Books)
Christine Taylor-Butler (Author)
Children's Press(CT) (September 2008)

Food Safety (Rookie Read-About Health)
Sharon Gordon (Author)
Children's Press (CT); 1 edition (March 2002)

The OrganWise Guys: Food Safety 101
Michelle Lombardo; D.C. (Author), Mark Herron (Illustrator)
Publisher: The OrganWise Guys, Inc. (October 1, 2005)

Food Safety / Seguridad de los Alimentos (Bookworms: Safe Kids/ Bookworms: Ninos Seguros)
Dana Meachen Rau (Author)
Publisher: Benchmark Books (NY); Bilingual edition (September 2009)

Food (Close-Up)
John Woodward (Author), Leon Gray (Author)
Brown Bear Books (August 2007)

Food Labeling

Food Labels: Using Nutritional Information To Create A Healthy Diet (The Library of Nutrition)
Rose McCarthy (Author)
Rosen Publishing Group (November 2004)

Looking at Labels: The Inside Story (Slim Goodbody's Lighten Up!)
John Burstein (Author)
Crabtree Publishing Company; 1 edition (March 15, 2008)

Food Production

Where Does Food Come From? (Exceptional Science Titles for Primary Grades)
Shelley Rotner (Author, Photographer), Gary Goss (Author)
Millbrook Press (December 30, 2005)

"WHERE DOES OUR FOOD COME FROM?" SERIES; NON-FICTION

Gretchen Will Mayo (Author)
Weekly Reader Learning Library (Milwaukee, WI)
Frozen Vegetables, 2004.
Applesauce, 2004.
Cereal, 2004.
Pasta, 2004.
Milk, 2004.
Orange Juice, 2004.

Weekly Reader Early Learning Library (January 2004)

Where Does Milk Come From?: The Story of Milk
Rachel Scott (Author)
Silverleaf Press (October 1, 2010)

Where Does Honey Come From?: The Story of Honey
Rachel Scott (Author)
Silverleaf Press (October 1, 2010)

Foodborne Disease

Recipe for Disaster: The Science of Foodborne Illness (Headline: Science)
Compass Point Books (January 1, 2010)

Food Safety (True Books, Food & Nutrition)
Joan Kalbacken (Author)
Children's Press (CT) (August 1998)

Food Borne Illnesses (Health Alert (Benchmark Books).)
Benchmark Books (NY) (January 31, 2006)