**The relationship between agriculture and food, fiber, and energy**

**Pillar 2 E. Accurately read labels to determine place of origin for food, fiber, and other agricultural products**

 (9th – 12th Grade)

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| **Introduction**: Use the activity detailed below as a jumping off point for connecting food location origin to accurately reading current food labels**Website**: <https://www.fda.gov/food/ingredientspackaginglabeling/labelingnutrition/ucm281746.htm> <https://www.nutrition.gov/shopping-cooking-meal-planning/food-labels> <http://www.agclassroom.org/teacher/matrix/lessonplan.cfm?lpid=384&grade=9&author_state=0&search_term_lp=origin>**Hands On**: VIDEO: <https://www.fda.gov/Food/IngredientsPackagingLabeling/LabelingNutrition/ucm275409.htm>  |

**The Columbian Exchange of Old and New World Foods**

**Purpose**

Students will explore New World and Old World food origins to understand how the Columbian Exchange altered people’s lives worldwide.

**Materials**

**Activity 1**

* A large paper map, see template provided: 1 per group of 3–4 students
* *Where in the World Food Cards*, 1 set of laminated cards per group of 3–4 students

**Activity 2**

* Projector/computer combo
* *Food, Land, and People and World Civilizations* PowerPoint

**Activity 3**

* Projector/computer combo
* Computers for students
* Poster board for student presentations
* *Food Origin Research Project* rubric

**Essential Files (maps, charts, pictures, or documents)**

* [Where in the World Food Cards ANSWER KEY](http://naitc-api.usu.edu/media/uploads/2015/12/01/foodcards_answerkey_1.pdf%22%20%5Ct%20%22_blank)
* [Where in the World Food Cards](http://naitc-api.usu.edu/media/uploads/2015/11/19/where_in_world_foodcards_1.pdf%22%20%5Ct%20%22_blank)
* [World Map Template](http://naitc-api.usu.edu/media/uploads/2015/11/19/map_template_1.pdf%22%20%5Ct%20%22_blank)
* [Food Origin Research Project Rubric](http://naitc-api.usu.edu/media/uploads/2015/11/19/researchproject_rubric_1.pdf%22%20%5Ct%20%22_blank)
* [Food, Land, and People and World Civilizations](http://naitc-api.usu.edu/media/uploads/2015/11/19/world_civilizations_1.ppt%22%20%5Ct%20%22_blank)

**Vocabulary**

**Columbian Exchange:** period of cultural and biological exchanges between the New and Old Worlds following Columbus’ arrival in the Americas

**New World food:** foods with origins in the Americas

**Old World food:** foods with origins in Europe, Africa, or Asia

**Center of origin:** geographic region where a plant first appeared or developed its distinctive properties

**Did you know? (Ag Facts)**

* Chocolate is a New World food made from the beans of the cocoa tree.1
* The scientific name of the cocoa tree (*Theobroma cacao*) means "food of the gods."
* Olives are an Old World fruit. Green and black olives can come from the same tree, green olives are just less ripe.2

**Background Agricultural Connections**

Prior to the rise of agriculture, people were hunters and gatherers. After the domestication of plants and animals, people were able to cultivate their own food. Still, the only food available was what they grew or what they could catch; they couldn’t just go to the grocery store and buy whatever was on the shelf. In 1492, when Christopher Columbus came to America, he saw plants and animals that he had never seen before. He took them back to Europe with him. Columbus’s trips were the beginning of an exciting time in the history of food. People would be able to taste different foods; foods with flavors, shapes, and textures they had never experienced before!

**Interest Approach – Engagement**

1. Create a poll using [polleverywhere.com](https://www.polleverywhere.com/%22%20%5Ct%20%22_blank). Students may respond using computers, cell phones, or any mobile digital device. Ask the simple question: “What is an Old World food?”
	1. A food with an origin in Asia, Africa, or Europe.
	2. A food that would be consumed by Neanderthals.
	3. A food with an origin in the Americas.
2. At the beginning of class, review students’ answers and share the background information concerning the Columbian Exchange. Discuss how often what people eat depends on where they live and correlates with what plants and animals live in that area. How has this changed?

**Procedures**

**Activity 1: My Lunch—A Guided Inquiry into Old World and New World Foods**

1. Divide the class into small groups of three or four. Ask students to list the things they had for lunch the previous day. Instruct them to be more specific than “pizza” by listing the basic ingredients of pizza—tomatoes, cheese, bread, sausage, etc.
2. Explain to students that they are going to explore the origins of their lunch and other foods by participating in a mapping activity. Pass out one world map per group. A fabric map is suggested (see Materials), but a large paper map can work (see the attached template).
3. Next, pass out one laminated set of *Where in the World Food Cards* to each group.
4. Starting with the food cards that were ingredients in their lunches, have students place each food card on the map in the location where they think the food originated from.
5. When all the groups have finished, ask them if they think they got all of the cards right. Then ask each group to share where they placed one card and ask if the other groups agree or disagree.

**Activity 2: Where in the World**

1. Show and discuss the PowerPoint *Food, Land, and People and World Civilizations*. Instruct students to move any foods that they have in the wrong location, correcting their maps as you go through the slides. Ask each group to keep a tally count of their moves.
2. After going through the PowerPoint, talk about the changes they made. Ask how many moves each group made. Discuss what food would be like if there had been no Columbian Exchange. Would pizza exist as we know it today?

**Activity 3: Facts About Food**

1. Explain to the students that you have only introduced a small sample of the foods of the world and that they are now going to get a chance to individually research and present a food.
2. Ask students to pick a food, such as cucumbers or chicken, or assign them one. Have them go to [foodtimeline.org](http://www.foodtimeline.org/%22%20%5Ct%20%22_blank), and instruct them to use *ctrl + f* to search for their food product.
3. As part of the research project, ask students to create either a 10-slide PowerPoint, a poster, or a 10-picture [VoiceThread](http://voicethread.com/%22%20%5Ct%20%22_blank) about their food to present to the class. Use the *Food Origin Research Project* rubric to guide students in preparing their presentations.

**Concept Elaboration and Evaluation**

After conducting these activities, review and summarize the following key concepts:

* The production of specific foods can be determined by geography, climate, or culture.
* The production of spices and various foods in specific areas of the world have impacted world trade. The Columbian Exchange is an example.

**Essential Links**

* [The Food Timeline](http://www.foodtimeline.org/%22%20%5Ct%20%22_blank)

**Enriching Activities**

* Show clips of Guns, Germs, and Steel (available at utah.agclassroom.org; search keyword steel).
* Dissect a typical meal in the United States, exploring the origins of the meal’s content.
* Prepare a taste test of foods from the New World and the Old World, such as chocolate, bread, or fruits.
* Hold a discussion on the roles that transportation and infrastructure play in food availability for different countries or different communities in the United States.
* Use a blender to make [hummus](http://allrecipes.com/recipe/20797/extra-easy-hummus/%22%20%5Ct%20%22_blank), and have a tasting in class, showing students the origin of a simple snack.

**Suggested Companion Resources**

* [Chocolate Taste-Testing](http://www.agclassroom.org/teacher/matrix/resources.cfm?rid=754) (Activity)
* [World Fabric Map](http://www.agclassroom.org/teacher/matrix/resources.cfm?rid=809) (Poster, Map, Infographic)
* [Ancient Recipes - Foods of Bible Times](http://www.agclassroom.org/teacher/matrix/resources.cfm?rid=785) (Multimedia)
* [Food Machine](http://www.agclassroom.org/teacher/matrix/resources.cfm?rid=475) (Multimedia)
* [How Chocolate Is Made](http://www.agclassroom.org/teacher/matrix/resources.cfm?rid=430) (Multimedia)
* [How Does it Grow? Video Series](http://www.agclassroom.org/teacher/matrix/resources.cfm?rid=472) (Multimedia)
* [How Stuff Works: Popcorn](http://www.agclassroom.org/teacher/matrix/resources.cfm?rid=485) (Multimedia)
* [NASA Shows U.S. Corn Belt Literally Glowing with Productivity](http://www.agclassroom.org/teacher/matrix/resources.cfm?rid=497) (Multimedia)
* [Pizzas Past and Present video](http://www.agclassroom.org/teacher/matrix/resources.cfm?rid=527) (Multimedia)
* [Planet Food Online Game](http://www.agclassroom.org/teacher/matrix/resources.cfm?rid=736) (Multimedia)
* [Popped Secret: The Mysterious Origin of Corn](http://www.agclassroom.org/teacher/matrix/resources.cfm?rid=568) (Multimedia)
* [Agricultural News](http://www.agclassroom.org/teacher/matrix/resources.cfm?rid=776) (Website)
* [Food Ark](http://www.agclassroom.org/teacher/matrix/resources.cfm?rid=494) (Website)
* [Key Ingredients: America by Food](http://www.agclassroom.org/teacher/matrix/resources.cfm?rid=524) (Website)
* [Magical Sour Cabbage: How Sauerkraut Helped Save the Age of Sail](http://www.agclassroom.org/teacher/matrix/resources.cfm?rid=560) (Website)
* [The Food Timeline](http://www.agclassroom.org/teacher/matrix/resources.cfm?rid=240) (Website)

**Sources/Credits**

1. [https://www.cadbury.com.au/about-chocolate/harvesting-and-processing-cocoa-beans.aspx](https://www.cadbury.com.au/about-chocolate/harvesting-and-processing-cocoa-beans.aspx%22%20%5Ct%20%22_blank)
2. [http://olivetreegrowers.com/faq.php](http://olivetreegrowers.com/faq.php%22%20%5Ct%20%22_blank)