

FOOD AND CULTURE PROJECT:

# THE MIGRATION OF FOOD

## OVERVIEW

Students learn about the broad flavor profiles typical of five different regions of the world. They then research the origin and migration of a key ingredient from one of the flavor profiles and create posters describing its history, cultivation, and use.

GRADE LEVEL: 6-8



CENTER FOR ECOLITERACY



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**CALIFORNIA FOOD FOR CALIFORNIA KIDS™** downloadable resource

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## Learning in the Real World

Learning in the Real World is a publishing imprint of the Center for Ecoliteracy, a not-for-profit, tax-exempt organization. Created in 1997, Learning in the Real World offers resources to support schooling for sustainability, stories of school communities, and the ecological framework that informs the work of the Center.

# THE MIGRATION OF FOOD

## FOOD AND CULTURE OVERVIEW

Although most people are aware that food provides nourishment, we rarely consider the geographic, historical, and cultural conditions that have influenced what we eat and how we procure, prepare, and serve it. By exploring food through a prism of culture, time, and place, we build a deeper appreciation of how regional characteristics have shaped our global food system.

## LESSON OVERVIEW

Students learn about the broad flavor profiles typical of five different regions of the world. They then research the origin and migration of a key ingredient from one of the flavor profiles and create posters describing its history, cultivation, and use.

## GRADES

6-8

## LENGTH

20-minute introduction; time for research; 50–90 minutes to make posters;  
20-minute wrap-up

## LEARNING OBJECTIVES

Students will:

- Understand that many plant foods originated in specific geographic regions of the world and were then cultivated in other areas.
- Learn about use of informational texts, maps, and online resources to research the origin and migration of one food ingredient.

- Become familiar with the growing requirements for a selected food plant.
- Design a poster about the origin, history, migration, cultivation, and use of one food ingredient.

## **STANDARDS CONNECTIONS**

### **NEXT GENERATION SCIENCE STANDARDS**

- Crosscutting Concepts — Patterns: Patterns in the natural and human-designed world can be observed and used as evidence.
- Crosscutting Concepts — Systems in the natural and designed world have parts that work together.

### **COMMON CORE STATE STANDARDS — ENGLISH LANGUAGE ARTS**

- Writing — WHST.6-8.2. Write informative/explanatory texts, including the narration of historical events, scientific procedures/ experiments, or technical processes.
- Writing — WHST.6-8.8. Gather relevant information from multiple print and digital sources, using search terms effectively.
- Reading Informational Text — RI.6.7. Integrate information presented in different media or formats (e.g., visually, quantitatively) as well as in words to develop a coherent understanding of a topic or issue.

### **COLLEGE, CAREER, AND CIVIC LIFE (C3) FRAMEWORK FOR SOCIAL STUDIES**

- Applying Disciplinary Concepts and Tools — Geography — D2.Geo.11.6-8. Explain how the relationship between the environmental characteristics of places and production of goods influences the spatial patterns of world trade.

## **VOCABULARY**

Flavor profile

Ingredient

Continent

African

Asian

European/Mediterranean

Latin American

Middle Eastern/Indian

Originate

Growing requirements

## **MATERIALS**

- Large world map
- Flavor profile pictures
- “The Migration of Food” student handout
- Access to the Internet
- Poster-making materials (oaktag, markers, etc.) or access to an online poster-making application

## **PREPARATION**

- 1 Make copies of the flavor profile pictures or plan to project the images on a screen. Make copies of the student handout.
- 2 Write possible search terms on the board for finding information about a flavor profile ingredient, such as: (ingredient) origin, history of (ingredient), trade route of (ingredient), migration of (ingredient), growing requirements of (ingredient), cooking with (ingredient), and medicinal uses of (ingredient).

## DIRECTIONS

- 1 Display a world map and, using information from the Background, provide a quick overview of the five flavor profiles. Point out the geographic area of each flavor profile. Have students name foods they may have eaten or heard of for each profile.
- 2 Invite students to choose a flavor profile and select one ingredient to investigate.
- 3 Give students copies of the student handout. Read through it as a class, making sure that students understand what they will research and any new vocabulary.
- 4 Discuss search terms students might use to find information about the ingredient they have chosen. Point to the terms you have written on the board and invite students to add to the list. See Resources for additional sources they may use for their research.
- 5 Provide time for students to conduct their research.
- 6 Direct students to make a poster about their chosen ingredient. Provide poster-making materials (or access to an online poster-making application). Posters should include the name and an illustration or photo of the ingredient, the map of the ingredient's migration, and information on the origin, migration, growth, and use of the ingredient. Discuss possible headers for the poster text, such as the following:
  - The History of (Ingredient)
  - Migration of (Ingredient)
  - Growing (Ingredient)
  - Using (Ingredient)
  - Fun Facts about (Ingredient)

- 7 Display the completed posters. Discuss how foods and spices migrate from their place of origin to other regions of the world.

## **EXTENDED LEARNING**

- Use a map-making application to create a map of the migration of various foods, applying the “pin” feature and attaching photos to indicate their origins, movement, and past and current use.
- Explore what happened in ancient civilizations when the introduction of a new technology such as agriculture, irrigation, or transportation changed food production. Discuss the possible impacts of recent food-production technologies such as genetic modification or computers.
- Have students research a specific food they eat in the lunchroom, tracing its journey from field to table. What resources were needed at each step of the journey?

## **ASSESSMENT**

Use students’ brochures to assess their understanding of the concepts.

## **RESOURCES**

- *The Food Timeline*. <http://www.foodtimeline.org>. An interactive timeline showing the history of foods from pre-civilization to now, with hyperlinks to information about their origin and uses.
- Nabhan, Gary Paul. *Cumin, Camels, and Caravans: A Spice Odyssey* (2014, University of California Press). A history of the spice trade from 3000 BCE to the present, with specific information about important spices and the trade routes on which they were transported. Within each of these profiles are very significant regional differences.

## BACKGROUND

Some people in Western Europe and North America take for granted the tremendous variety of foods and food ingredients available to them. In our modern society, many of us have access to countless different fruits, vegetables, meats, and spices shipped from all over the world to local markets.

Although our ancestors depended on what could be grown, gathered, or raised locally, the varieties of foods available in earlier times were often greater than what we enjoy today. For example, nearly 300 varieties of corn were identified in early Mexico, Central and South America, and the Caribbean.

Even in ancient times people were interested in new foods and in obtaining a wider variety of ingredients. They traded with people from distant lands and took seeds and stock animals with them when they migrated.

Early civilizations in Asia and then in Northeast Africa and Europe used spices such as cinnamon, cassia, cardamom, ginger, pepper, and turmeric for commerce, creating well-worn trade routes we now know as the Spice Route. Later, chiles and chocolate from the Americas to Europe followed trade routes known as the Camino Real.

As a result of both trade and migration, many of the foods we associate with particular cuisines actually originated far away. For example, while tomatoes are used extensively in Mediterranean cuisines today, these plants were native to the Americas.

Numerous cuisines around the world use many of the same basic foods, but may season those foods in distinctive ways. The general flavor profiles introduced in this activity represent the world's major continents. While there are significant regional differences within each area, the choice of seasonings — and in some cases, ingredients — allows us to talk in broad terms about flavor profiles. The flavor profiles and their typical ingredients include the following:



**FLAVOR PROFILE: AFRICAN**

Beans

Black-eyed peas

Collard greens

Corn

Millet

Molasses

Okra

Paprika

Peanuts

Peppers, chili

Peppers, sweet

Sassafras

Sweet potatoes

Yams

FLAVOR PROFILE: AFRICAN

COLLARD GREENS



BLACK-EYED PEAS



CORN



PEANUTS

PAPRIKA



CHILI PEPPERS



SWEET POTATOES



OKRA

**FLAVOR PROFILE: ASIAN**

Coriander	Rice vinegar
Coconut	Saffron
Cumin	Sesame seeds and sesame oil
Curry	
Fish sauce	Soy flavorings: miso paste, fermented soybeans, soy sauce
Ginger	
Lemongrass	
Mint	Thai basil
Mung beans	Tofu
Peppers, chili	Turmeric
Peppers, sweet	

FLAVOR PROFILE: ASIAN



TOFU



GINGER



LEMONGRASS



SAFFRON



CHILI PEPPERS



CORIANDER



MUNG BEANS



COCONUT

**FLAVOR PROFILE: EUROPEAN/MEDITERRANEAN**

Barley	Olive oil
Basil	Oregano
Capers	Paprika
Couscous	Peppers, chili
Dill	Peppers, sweet
Fennel	Rosemary
Garlic	Saffron
Horseradish	Thyme
Mint	Tomatoes
Olives	

FLAVOR PROFILE: EUROPEAN/MEDITERRANEAN



FENNEL



BARLEY



OLIVES AND OLIVE OIL



OREGANO



GARLIC

SWEET PEPPERS



COUSCOUS



**FLAVOR PROFILE: LATIN AMERICAN**

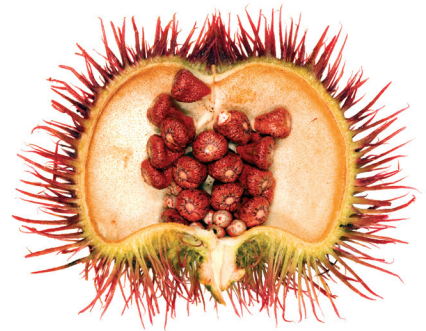
Achiote	Nopales (cactus pads)
Bananas	Oregano
Beans	Papaya
Chocolate	Peppers, chili
Cinnamon	Peppers, sweet
Corn	Plantains
Cumin	Quinoa
Garlic	Tomatoes
Hibiscus	Vanilla
Mangoes	

FLAVOR PROFILE: LATIN AMERICAN

PLANTAINS



ACHIOTE



BEANS



QUINOA



TOMATOES



VANILLA



CUMIN



HIBISCUS





## FLAVOR PROFILE: MIDDLE EASTERN/INDIAN

Allspice	Pine nuts
Cardamom	Pomegranates
Chickpeas (garbanzo beans)	Rose water
Cilantro	Sesame oil
Cinnamon	Tamarind
Coriander	Turmeric
Cumin	Yogurt
Fennel	
Garlic	<b>More specific to India:</b>
Ghee (clarified butter)	Curry
Mint	Garam masala
Nutmeg	Kaffir lime leaves
Peppers, chili	Mangoes
Peppers, sweet	

[Source: Flavor profile information was slightly adapted from pages 35–45 in *Cooking with California Foods in K-12 Schools* (2011, Learning in the Real World).]

FLAVOR PROFILE: MIDDLE EASTERN/INDIAN

CILANTRO



CINNAMON



YOGURT



CURRY



PINE NUTS

MANGOES



TAMARIND

POMEGRANATES



CHICKPEAS



**THE MIGRATION OF FOOD**

- 1 What ingredient did you choose to research?
- 2 Which flavor profile(s) use(s) this ingredient?
- 3 Where did this ingredient originate? (Write a brief description and indicate the area on the map below.)



- 4 How did this plant migrate to other regions of the world? On the map, show the general routes it took from its place of origin to other countries.
- 5 What are the growing requirements for this plant?
- 6 What countries are currently the top producers or exporters of this plant?
- 7 How is this ingredient commonly incorporated into a meal?
- 8 Is this ingredient also used for medicinal purposes? If so, how?
- 9 What other interesting or surprising information did you discover about this ingredient?



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## ABOUT THE CENTER FOR ECOLITERACY

The Center for Ecoliteracy is an internationally recognized leader in systems change innovations in education for sustainable living. Since 1995, the Center has engaged with thousands of educators from across the United States and six continents. The Center offers publications, seminars, academic program audits, coaching for teaching and learning, in-depth curriculum development, keynote presentations, and technical assistance. Books authored or coauthored by the Center for Ecoliteracy include *Ecoliterate: How Educators Are Cultivating Emotional, Social, and Ecological Intelligence* (Jossey-Bass, 2012); *Smart by Nature: Schooling for Sustainability* (Watershed Media, 2009); and *Ecological Literacy: Educating Our Children for a Sustainable World* (Sierra Club Books, 2005).

## CREDITS

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## PHOTOS

**Cover map:** [www.digital-vector-maps.com](http://www.digital-vector-maps.com), pushpin: istockphoto 000018180564, ctermit

**World map** [www.digital-vector-maps.com](http://www.digital-vector-maps.com)

**African flavor profile** collard greens: istockphoto 2408145, vtupinamba; black-eyed peas: istockphoto 6976274, tfazevedo; peanuts: istockphoto 8258761, RedHelga; paprika: istockphoto 11766151, AngiePhotos; corn: istockphoto 13967505, JoeBiafore; chilis: istockphoto 4710381, magnetcreative; okra: istockphoto 10294583, CherylEDavis; sweet potatoes: istockphoto 11170307, Floortje

**Asian flavor profile** tofu: istockphoto 12704422, KevinDyer; ginger: Istockphoto 10862599, Dar07; lemongrass: istockphoto 3355929, sasimoto; saffron: istockphoto 11766674, AngiePhotos; chilis: istockphoto 4710381, magnetcreative; coriander: istockphoto 15335886, Jamesmcq24; mung beans: istockphoto 12339657, JonnyJim; coconut: istockphoto 11204027, isailorr

**European/Mediterranean flavor profile** fennel: istockphoto 10659058, KevinDyer; barley: istockphoto 11478909, AntiMartina; oregano: istockphoto 15730560, annaia; olives: istockphoto 337080, susib; olive oil: istockphoto 8988248, eurobanks; sweet pepper: istockphoto 15317965, vicm; garlic: istockphoto 14186271, AlasdairJames; couscous: istockphoto 10463258, AlasdairJames

**Latin American flavor profile** tomato: istockphoto 6974625, cinoby; plantains: istockphoto 14693727, fcافotodigital; cumin: istockphoto 11933156, AngiePhotos; vanilla: istockphoto 5791952, amriphoto; hibiscus: istockphoto 12552432, moppet; achiote: istockphoto 9215515, Atelopus; quinoa: istockphoto 12306408, AlasdairJames; beans: istockphoto 6976271, tfazevedo

**Middle Eastern/Indian flavor profile** cilantro: istockphoto 4585508, YinYang; cinnamon: istockphoto 15689149, popovaphoto; mango: istockphoto 15689149, popovaphoto; chickpeas: istockphoto 14067709, galaiko; pomegranate: istockphoto 10884055, alxpin; pine nuts: istockphoto 7729295, timsa; tamarind: istockphoto 4018067, Devonyu; yogurt: istockphoto 8636220, vikif