

INVESTIGATING CABBAGE TRADITIONS

OVERVIEW

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GRADE LEVEL: 3-5





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Published by Learning in the Real World

CALIFORNIA FOOD FOR CALIFORNIA KIDS® downloadable resource

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Center for Ecoliteracy
David Brower Center
2150 Allston Way, Suite 270
Berkeley, CA 94704-1377

For more information about this activity, email info@ecoliteracy.org or visit www.ecoliteracy.org.

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.



CALIFORNIA FOOD
FOR CALIFORNIA KIDS®

INVESTIGATING CABBAGE TRADITIONS

LESSON OVERVIEW

The versatile, tasty, and healthful cabbage has made its way into the hearts and onto the tables of people all over the world. As a cool-season crop, it thrives in cooler weather and is harvested in late fall through early spring, providing an important source of fresh greens during the winter months. People use cabbage in a wide variety of ways, including fresh, cooked, and pickled or fermented. California is a leading cabbage producer, growing nearly a third of the country's "fresh market" cabbages. In this lesson, students examine the cultural importance of cabbages, conduct a comparison tasting of different cabbages grown in California, and explore family food traditions involving cabbage.

GRADE LEVEL

3-5

LENGTH

One to two 50-minute periods, with time in between to conduct interviews

LEARNING OBJECTIVES

Students will:

- Recognize the importance of cabbage in different cultures.
- Compare the tastes and textures of different cabbage varieties grown in California.
- Identify family food traditions related to cabbage.

STANDARDS CONNECTIONS

NEXT GENERATION SCIENCE STANDARDS

Science and Engineering Practices:

- Analyzing and Interpreting Data – Represent data in graphical displays (bar graphs, pictographs, and/or pie charts) to reveal patterns that indicate relationships.
- Engaging in Argument from Evidence – Support an argument with evidence, data, or a model.
- Planning and Carrying Out Investigations – Make observations and/or measurements to produce data to serve as the basis for evidence for an explanation of a phenomenon.

CA HISTORY-SOCIAL SCIENCE CONTENT STANDARDS FOR CALIFORNIA PUBLIC SCHOOLS. KINDERGARTEN THROUGH GRADE 12

- 3.1. Students describe the physical and human geography and use maps, tables, graphs, photographs, and charts to organize information about people, places, and environments in a spatial context.
- 3.5. Students demonstrate basic economic reasoning skills and an understanding of the economy of the local region.
- 3.5.1. Describe the ways in which local producers have used and are using natural resources, human resources, and capital resources to produce goods and services in the past and the present.

COMMON CORE STATE STANDARDS-ENGLISH LANGUAGE ARTS

- SL3.3. Ask and answer questions about information from a speaker, offering appropriate elaboration and detail. SL4.3. Identify the reasons and evidence a speaker provides to support particular points. SL5.3. Summarize the points a speaker makes and explain how each claim is supported by reason and evidence.

- RI.3.7. Use information gained from illustrations (e.g., maps, photographs) and the words in a text to demonstrate understanding of the text (e.g., where, when, why, and how key events occur).
- W.3.7. Conduct short research projects that build knowledge about a topic.
- W.4.7. Conduct short research projects that build knowledge through investigation of different aspects of a topic. W.5.7. Conduct short research projects that use several sources to build knowledge through investigation of different aspects of a topic.

VOCABULARY

- **Cabbage** – a vegetable with thick green or purple leaves shaped into a head.
- **Cool-season crop** – a plant that can tolerate frost or cool temperatures and that grows best in temperatures lower than 70 degrees Fahrenheit.
- **Cultural tradition** – cuisine, social habits, or other characteristics of a specific group of people.
- **Nutrient** – something our bodies need to stay strong and healthy.
- **In season** – available fresh and locally at a certain time of year.

MATERIALS

- Copies of “The Lovable Cabbage” and “Cabbage Traditions” student handouts
- Copies of “Taste Test” and “Fruit and Vegetable Adjectives” student handouts from *Savoring California: A Comparative Tasting of California Fruits and Vegetables* (<http://www.ecoliteracy.org/sites/default/files/CEL-CA-Thursdays-Tasting-Lesson.pdf>).
- World map
- Tape or thumbtacks

- Two or more whole heads of different cabbage varieties (see Preparation)
- Sharp knife and cutting board
- Serving trays
- Toothpicks
- Napkins
- Waste bucket

PREPARATION

- Make copies of the student handouts. For the “Fruit and Vegetable Adjectives” student handout, you may make one copy for each small group or table, or project it onto a screen for the whole class to see.
- Cut out the pictures of the various food items from one copy of “The Lovable Cabbage” student handout.
- Purchase two or more California-grown varieties of cabbages for the taste test: green, savoy, or red cabbage (see Background). If you like, you may also include Napa cabbage, bok choy, or other cabbage relatives.
- Remove the outer leaves of each cabbage head and wash well under running water. Cut the head in half vertically (through the base), leaving one half intact. With the other half, remove and discard the tough inner core and cut the cabbage into bite-size pieces. Place the cabbage half and pieces onto a serving tray. Provide toothpicks for picking up samples.
- Have a waste bucket on hand for collecting vegetable scraps to compost.
- Read over the *Savoring California: A Comparative Tasting of California Fruits and Vegetables* lesson (<http://www.ecoliteracy.org/sites/default/files/CEL-CA-Thursdays-Tasting-Lesson.pdf>).
- (Optional) As an alternative to the homework assignment in step 5, you might invite a guest to interview with questions on the “Cabbage Traditions” student handout. See the *Food Traditions Interview* lesson for suggestions on

conducting an in-class interview. (http://www.ecoliteracy.org/sites/default/files/uploads/CEL_Food_Traditions_Interview_Lesson.pdf)

DIRECTIONS

- 1 Give students copies of “The Lovable Cabbage” student handout and invite them to read about the importance of cabbage in different parts of the world.
- 2 Ask students whether they have ever eaten any of the cabbage dishes described. Using the world map, have students tape or tack pictures of each cabbage dish on or near the country it is from.
- 3 Show students the cabbages you have prepared. Conduct a comparison tasting of the cabbages, following instructions in the *Savoring California: A Comparative Tasting of California Fruits and Vegetables* lesson (<http://www.ecoliteracy.org/sites/default/files/CEL-CA-Thursdays-Tasting-Lesson.pdf>). Encourage students to use descriptive terms for the cabbages, with the “Fruit and Vegetable Adjectives” student handout as a guide.
- 4 Ask students whether they know of any traditional foods made of cabbage that are eaten in their family. Explain that students will interview a family member or friend to learn about their memories and experiences eating cabbage.
- 5 For homework, provide students copies of the “Cabbage Traditions” student handout to complete with a family member or friend. (As an alternative, you may invite an adult to your class to interview.)
- 6 Back in class, ask students to turn to their neighbor and either share something they learned from the interview or to describe their own memory of a food made from cabbage.
- 7 Create a class chart showing different cultural heritages and their cabbage-based foods from the interviews.

EXTENDED LEARNING

- Using cabbage left over from the taste testing, make Asian Slaw by following a kid-friendly recipe from *California Tastes Amazing* (<http://www.ecoliteracy.org/download/california-tastes-amazing>).
- In the fall, plant cabbages in the garden and monitor their growth over the winter. (See Resources for information about the Bonnie Plants 3rd Grade Cabbage Program.)
- Use Harvest of the Month materials to explore other aspects of cabbages (see Resources).
- Visit a local farm or farmer's market to learn about other cabbage varieties grown in your area. (See Resources to locate a farmer's market near you.)

ASSESSMENT

Direct students to write a paragraph describing one food tradition that includes cabbage, drawing on information they gleaned from the interview or the class chart created in step 7. Encourage them to incorporate some of the adjectives they identified from their taste test.

RESOURCES

- Bonnie Plants 3rd Grade Cabbage Program. To encourage vegetable gardening among young people, Bonnie Plants distributes free cabbage plants to 3rd grade classrooms across the country. <http://bonniecabbageprogram.com/>
- California Harvest of the Month: Cabbages. (http://harvestofthemonth.cdph.ca.gov/documents/Winter/Cabbages/Cabbage%20-%20Family%20News_Eng_Final.pdf)

- National Farmers Market Directory. <https://www.ams.usda.gov/local-food-directories/farmersmarkets>.
- “The History of Cabbage.” University of Saskatchewan. <http://agbio.usask.ca/community-outreach/gardenline/vegetables.php>.

BACKGROUND

The cabbage is a plant that people eat as a vegetable. It has thick green or purple leaves that surround a round heart or head of young leaves.

THE CULTURE OF CABBAGE

The seemingly humble cabbage is actually one of the most important vegetables around the world and plays a key culinary role in many different cultures. Cabbage is central to Korean *kimchi*, German *sauerkraut*, Polish *golabki* (cabbage rolls), and Chinese stir-fry.

In the United States, monthly cabbage consumption peaks in March due to the popularity of corned beef and cabbage for St. Patrick’s Day. Coleslaw is often featured at Fourth of July picnics, and black-eyed peas and cabbage is traditional Southern fare for celebrating the New Year.

Cabbage is one of the earliest cultivated vegetables. It originated from the wild cabbages that still grow on the coast of the Mediterranean and the North Sea. The ancient Greeks, the Romans, and other early Europeans all ate cabbage, but the modern cabbage varieties didn’t appear until the Middle Ages, when the round head cabbage was cultivated in Northern Europe.

COLD TOLERANCE

One reason cabbages have made their way into so many different cultures is that the plants naturally tolerate cold weather. Their tough leaves enable them to withstand a hard frost, so that they can be grown both earlier and later than many other vegetables. Their leaves also keep them fresh longer once harvested. In places without refrigeration, cabbage may be the only fresh produce available for family meals.

In California, cabbages can grow year-round, making the state the largest fresh cabbage supplier in the country. California produces 31 percent of all fresh market cabbages in the United States. The leading counties for cabbage production are Monterey, Imperial, Ventura, Santa Barbara, and San Luis Obispo.

CABBAGE VARIETIES

You may be surprised to learn that cabbage, as well as broccoli, kohlrabi, cauliflower, kale, and collard greens, are all different varieties of the same plant species, *Brassica oleracea*. These varieties were cultivated over hundreds of years by people selecting particular traits, resulting in the different forms and colors of the modern vegetables.

Green, red, and Savoy cabbage are all varieties of *Brassica oleracea*. The closely related species *Brassica rapa* includes Napa cabbage and bok choy, which are also considered cabbages.

HEALTH BENEFITS OF CABBAGE

Cabbages and their relatives are members of the cabbage or cruciferous family of vegetables, so called because their flowers have four petals resembling an X or cross.

Cruciferous vegetables are rich in nutrients that are important to human health, including beta-carotene; Vitamins C, E, and K; folate; and minerals. They are also

a good source of fiber. In addition, cruciferous vegetables contain substances known as glucosinolates, which are sulfur-containing chemicals. These chemicals are responsible for the pungent aroma and bitter flavor of cruciferous vegetables, and may also play a role in fighting certain types of cancers.

SELECTING CABBAGES

Depending on the variety, cabbage can be peppery or bitter or both. When selecting your cabbages, choose ones that are as fresh as possible.

THE LOVABLE CABBAGE

If you lived in France, your grandmother might call you “my little cabbage” to show her love.¹ And while cabbage may not be quite as adorable as you, this healthful and flavorful vegetable is enjoyed all over the world.



In China, cabbage is stir-fried with pork and rice.



In Poland, people make *golabki* (cabbage rolls) by wrapping the leaves around ground meat.



In Mexico, it tops fish tacos.



Cabbage is the main ingredient in German *sauerkraut*.



In Russia, it is the star of the national dish *shchi* (cabbage soup).



In Kenya, cabbage is combined with other ingredients to make a dish called *sukumawiki*.



Koreans eat *kimchi* (spicy pickled cabbage) at almost every meal.



In India, cabbage is popular in *sabzi*.

Cabbage is the center of many cultural traditions in the United States, too. More cabbage is sold in March than any other month of the year. Can you guess why? It's because families all over the country celebrate St. Patrick's Day with corned beef and cabbage.² Coleslaw or many Southerners ring in the New Year with cabbage and black-eyed peas.

¹ *Mon petit chou* (mow puh-tee SHOO) translates to “my little cabbage.”

² Corned beef and cabbage is an American tradition—not something eaten in Ireland.

WHY IS CABBAGE SO POPULAR?

Cabbage is popular because it tastes delicious! It also contains many important things for staying healthy. It is an excellent source of Vitamin C, Vitamin E, fiber, and other nutrients.

Cabbage is a cool-season crop, growing best in fall, winter, and spring. Its tough leaves help it to resist freezing and to stay fresh longer. That means that it is in season when few other vegetables are. Home cooks can usually count on low-cost, nutritious cabbage for their family meals.

THE CABBAGE FAMILY

Cabbages belong to a group of vegetables called the cabbage family. Other members of the cabbage family include broccoli, cauliflower, Brussels sprouts, kale, kohlrabi, turnips, and collards.

In the United States, the main types of cabbages are:



Green cabbage – with a round head and wide fan-like leaves that are pale green in color.



Red cabbage – like green cabbage, but with dark reddish-purple leaves.



Bok choy – with white, celery-like stems and dark green leaves.



Napa (or Chinese) cabbage – with an oblong-shaped head and frilly yellow-green leaves.



Savoy cabbage – with a round head and crinkled, medium-green leaves.

No matter the type you choose, cabbages are healthful, delicious, and can be prepared lots of different ways. What's not to love about that?

CABBAGE TRADITIONS

Interview an adult member of your family or an adult friend to find out food traditions that include cabbages. Ask:

- 1 What country or cultural tradition are you or your family from?
- 2 As a child, did you eat any foods made with cabbage?
- 3 How was this food prepared?
- 4 Who prepared it?
- 5 Did you eat this food at a particular time of year, like winter or summer?
- 6 Was the food part of a special occasion or celebration?
- 7 Do you have any other food memories related to cabbage?
- 8 What foods made with cabbage do you enjoy now?



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

Project Director Zenobia Barolow

Author Leslie Comnes

Designer Karen Brown

Senior Editor Michael K. Stone

Proofreader Mark Rhynsburger

Project Manager Alexa Norstad

PHOTOS

Cover red and green cabbage: istockphoto 82362209, chengyuzheng

Student Handouts pork and rice: istockphoto 500506598, evil_beau; golabki: istockphoto 163353964, Wojciech Cyganek; fish taco: istockphoto 486475161, Lauri Patterson; sauerkraut: istockphoto 475890089, hydrangea100; shchi: istockphoto 477821091, letty17; sukumawiki: istockphoto 182702204, DianePeacock; kimchi: istockphoto 476257348, jeehyun; sabzi: istockphoto 519555224, -lvinst-; red and green cabbage: istockphoto 82362209, chengyuzheng; bok choy: istockphoto 174921248, forkodiak; napa cabbage: istockphoto 177436155, Coprid; savoy cabbage: istockphoto 183326451, Alasdair Thomson