

This document contains the Appendixes of the 2002 *Kids Cook Farm-Fresh Food* prepared under the direction of the Nutrition Services Division for the California Department of Education. The entire publication is available at <http://www.cde.ca.gov/ls/nu/he/kidscook.asp>.



LATE SUMMER-FALL



WINTER



SPRING-EARLY SUMMER

Extension Ideas

If you find that you and your class want to do more investigating about farm produce, agriculture, or cooking, here are some possibilities for extending the activities in specific subject areas.

Science

- Students make an inventory of the different foods that they find at home and place the items into categories according to the part of the plant that they come from: leaves, stems, flowers, roots, or seeds.
- Students examine the patterns of veins in a variety of leaves. They dissect leaves and observe them under a microscope.
- Students explore differences between mixtures and solutions.
- Students research different varieties of a particular crop to determine their origins.
- Students research methods that farmers use to make their crops grow faster.
- Students research and compare the nutritional value in the same amount of frozen, canned, and fresh food.
- Students develop a school garden.
- Students draw a map of the crops in the school garden and make a crop rotation plan for it.
- Students visit the school garden and inventory all the different insects in it. They research to learn which are beneficial and which hurt the garden plants.
- Students compare compost and garden soil. They observe and record the color, smell, soil compaction, soil quality, and moisture of each.

History–Social Science

- Students use a map of California to locate areas where citrus fruit or other specific crops grow.
- The class visits a restaurant for a behind-the-scenes look at how food is prepared for meals.
- Students research a particular crop (such as rice or corn) to learn about its cultural significance in different regions of the world.
- Students take a field trip to a local farm or farmers market (or invite a farmer to your class) to help students learn about marketing practices, pricing, and customer relations.
- Students fill in a map of the world by identifying different cultures that make certain foods.

Math

- For a given crop, students make a graph showing which varieties the class likes best.
- Students create a survey to find out what families typically eat for different meals and snacks.
- Students use measuring spoons and cups to determine the ratios among teaspoons, tablespoons, $\frac{1}{3}$ cup, $\frac{5}{8}$ cup, and 1 cup.
- Students create a survey about favorite ethnic foods and conduct the survey among other students or friends and family. Students record the results on a graph.
- Students examine the patterns in broccoli florets: do the patterns repeat themselves? Are the patterns random?

English–Language Arts

- Students observe family members cooking at home and share their observations in class.
- Students write a letter to a farmer about questions they may have on growing certain crops or other related issues. Contact the Community Alliance with Family Farmers (see Appendix B) to locate a farmer.
- Students look up potato salad recipes (or other common recipes) to see how many different versions they can find. Discuss how these recipes might vary in taste, texture, smell, and appearance when they are prepared.

Art

- Students make produce prints by cutting cross sections of onions, apples, broccoli florets, and so on and dipping them in paint.
- Students examine artwork of historical eras being studied to see how fruits and vegetables were depicted.

Computers/Technology

- Students research the history of a commodity, its nutritional value, and so forth.
- Students visit the agricultural Web sites noted in the *Teacher Resource Guide*, published annually by the California Foundation for Agriculture in the Classroom (see Appendix B).



Farm to School Resources

The following information is provided for teachers who want to plan field trips for their students or who seek additional resources for their programs:

Farmers Markets

Farmers markets are the best places to buy fresh, seasonal farm products directly from local farmers and to learn about how, where, and by whom local farm products are grown. Market managers are generally happy to arrange market tours for school groups, and some markets offer special programs for children, such as tastings and cooking classes. To find a farmers market nearby, contact your local county agriculture commissioner or the following sources:

California Federation of Certified Farmers' Markets

<http://farmersmarket.ucdavis.edu>

Janice Price, director
direct Marketing Program
California department of Food and Agriculture
1220 N St.
Sacramento, CA 95814
(916) 654-0919
<http://www.cdfa.ca.gov>

Farms

Many farms welcome visitors and public participation. Quite a few offer special programs and seasonal activities for school groups and families. others offer Community Supported Agriculture programs. For a list of such farms, contact:

Community Alliance with Family Farmers
P.o. Box 363
Davis, CA 95617
(530) 756-8518
<http://www.caff.org>

desmond Jolly, director
Small Farm Center
University of California, Davis
one Shields Ave.
Davis, CA 95616
(530) 752-8136
<http://www.sfc.ucdavis.edu>

County Farm Bureau

As listed in the business section of the White Pages telephone directory. or call California Foundation for Agriculture in the Classroom at 800-700-AITC or visit the Foundation's Web site <<http://www.cfaitc.org>>.

School Gardens

The following organizations offer information about developing school gardens, utilizing gardens in the curriculum and for nutrition education, and providing ongoing teacher training and support. They also have lists of school gardens in their areas and information about other school garden resources.

Garden Enhanced Nutrition Education
Nutrition Services Division
California department of Education
1430 N St., Fourth Floor
Sacramento, CA 95814
(916) 323-2473
deborah Tamannaie: dtamannaie@cde.ca.gov

department of Pomology
Capitol Region School Gardens Resource Center
University of California, Davis
Davis, CA 95616
(530) 752-7655
Carol hillhouse: jchillhouse@ucdavis.edu
Cynthia havstad: cmhavstad@ucdavis.edu

Inland Empire Region School Garden Resource Center
California State Polytechnic University, Pomona
3801 W. Temple Ave.
Pomona, CA 91768
(909) 869-2173
Peggy McLaughlin: psmclaughlin@csupomona.edu

San die go County School Garden Resource Center
Resource Conservation district of Greater
San die go County
332 So. Juniper St., Ste. 110
Escondido, CA 92025
(760) 745-2061
Tiana Sudduth: tiana@rcdsandiego.org

Tina M. Poles, School Garden Teacher Training
Program director
occidental Arts and Ecology Center
15290 Coleman Valley Rd.
occidental, CA 95465
(707) 874-1557, Ext. 202
tina@oaec.org

**Informal Nutrition Education, Garden,
and Farm Education Programs**

County University of California Cooperative Extension and 4-h programs are excellent resources for a wide variety of informal education programs:

California Foundation for Agriculture
in the Classroom
P.o. Box 15949
Sacramento, CA 95892-0949
2300 River Plaza drive
Sacramento, CA 95833-3293
(916) 561-5625 or (1-800) 700-AITC
Fax (916) 561-5697
e-mail: cfaitc@cfbf.com
<http://www.cfaitc.org>

University of California Cooperative Extension
d ANR
one Shields Ave.
davis, CA 95616-8575
<http://fourh.ucdavis.edu>
<http://danr.ucop.edu>

Farm to School Programs

Following are some primary resources for financial and technical support, training, and information:

California Nutrition Network/5-A-day
California department of health Services
P.o. Box 942732, MS-662
601 N. 7th St.
Sacramento, CA 94234-7320
(916) 445-6727

Farm to School Program
Community Food Security Coalition
P.o. Box 209
Venice, CA 90294
(310) 822-5410
Marion Kalb: marion@foodsecurity.org

Food Systems Project
Center for Ecoliteracy
2522 San Pablo Ave.
Berkeley, CA 94702
(510) 548-8838
Melanie okamoto: melanie@foodsystems.org

California Agricultural directory
California Farm Bureau Federation

This Web site provides more than 2,000 listings for agricultural associations and cooperatives, government agencies, university schools and programs, irrigation districts, fair associations, and more.

(916) 561-5550
<http://www.cfbf.com>



Students Share in a Farm's harvest one Teacher's Experience

by Phoebe Tanner

Opening the biweekly vegetable box from Terra Firma Farm was always a highlight in my sixth grade classroom. As soon as the large, waxed cardboard box appeared, students started guessing what was in it. I opened the box, wondering right along with them what gifts from the earth were inside this week. I held up the vegetables, one by one, calling on students to identify them. By two weeks into December, everyone could distinguish Swiss chard from red Russian kale.

Carrots were always greeted with cheers. Most students were interested in eating them or getting the peeling-and-cutting-carrots job, which, of course, included tasting. There were several students who, using classroom resource books, attempted to pin down the variety of carrots, learning to distinguish the Nantes from the Chantenays.

Students learn classroom routines especially quickly when the routine is an activity they like. Making a salad was high on my students' list. Cutting boards were passed out, one to a table, with no directions from me. I assigned the remaining jobs, being sure to rotate those of washing the lettuce and using the salad spinner, a favorite job. In short order students distributed all vegetables that did not need cooking to the chopping stations. We always cut up kale and chard and minced leeks. Potatoes were among the few items that did not

make it into the salad unless I had the foresight and time to take them home the night before and cook them.

I passed out the knives with words of caution. Only once in two years did I have to reach into the box of adhesive strips during salad time.

There was much discussion over salad dressings. Most students wanted ranch dressing. We invited a chef from a local restaurant to join us one day. He worked with the salad dressing group and showed students how adding minced leeks and various amounts of salt and pepper to oil and vinegar could alter the taste. He encouraged the students to dress the salad only lightly, allowing the taste of the vegetables to come through. After the chef's visit, the job of making salad dressing became a favorite.

I tossed the salad in a large bowl. Students placed it on plates and served their classmates. One day, once everyone was served, I asked the class to pause before eating and think of all the steps involved in getting our salad to our plates—from the sun that provided energy and the green leaves that took that energy and, through photosynthesis, transformed it into food for the plant; to the farmers at Terra Firma who tilled the soil, tended the growing plants, harvested the crops, loaded the truck, and delivered it to our school; to our class, who washed, chopped, tossed, served, composted, and, finally, ate together, taking in the energy from the sun and the nutrients from the soil. Spontaneously, the students stood and applauded.

Phoebe Tanner, Sixth Grade Teacher, Edible Schoolyard,
M. L. King Middle School, Berkeley, California; California Visiting
Educator, California Department of Education,
2000–2002

Community Supported Agriculture (CSA) is a connection between a local farmer and the people who eat the food the farmer produces. Consumers make a monthly financial commitment to the farm and, in return, get a weekly box of seasonal fruits and vegetables. Consumers share in the inherent risks and potential bounty of the farm and get the opportunity to know where their food comes from. Farmers obtain a steady income year-round. The idea of a committed financial relationship between consumers and farmers originated in Japan and Europe in the 1970s. Coincidentally, CSA vegetable boxes are a wonderful teaching tool in the preliminary stages of developing a school garden.

Farm Field Trips for School Groups: A Primer for Teachers

For many young people, farmers and farming have an almost mythical quality as people, places, and activities imagined but not directly experienced. Children read books that include farm animals and sing about old Macdonald, but few have ever been to a farm or met a farmer. If future generations are going to care about farms and farming, they need to be directly exposed to the people and places that produce their food.

Benefits of Farm Field Trips

Farm field trips provide an opportunity for students to use all their senses to learn: the more they can touch, smell, and taste the things they are learning about, the more deeply they will understand and remember what they learn. Learning on the farm is a natural extension to related school activities such as nutrition education, school garden classes, and classroom cooking. It also provides tangible applications for science, math, social studies, and geography concepts (e.g., for a fourth grade study of California geography, culture, and history).

This primer outlines steps for planning, conducting, and following up on farm field trips that will ensure the most rewarding experience for students, teachers, and farmers alike. More extensive trips to farms for overnight stays are becoming more popular but are not covered here.

Some farmers offer educational field trips as a part of their farming operation. Others encourage visits but may not have developed specific activities. Either experience is valuable.

Planning

Where to go: There are several resources for finding farms in your area that host field trips. A good place to start is by inquiring at your local farmers market for farmers who live within field trip distance and who host school groups. Harvest trail groups (listed in yellow Pages or contacted through visitor ser-

vices) also have lists of farms that host groups and offer other amenities to the public. (See also the listings in Appendix B, “Farm to School Resources.”)

When: Fall, the traditional harvest season, and spring, the start of summer production, are popular times to take farm field trips. However, winter is also an excellent time for on-farm learning because even on farms that do not grow winter crops (and many do), students experience the off-season activities that are essential to bountiful harvests.

What/who: The best farm field trips offer hands-on activities, and these are most successful when groups are small. Farmers will often have other family members or their employees available so that activity groups can be small even if the overall group is large. Teachers or parent chaperones should be teamed with each activity group. Discuss planned activities and expectations with the farmer ahead of time, including the number of students that the farm can comfortably accommodate and age-appropriate activities.

Price: Some tours are free of charge. Some farmers charge a fee of \$1 to \$5 each for a day visit to help cover their time. A charge for farm products that the students take home may be included in or added to this fee. Costs for transportation to the farm are, of course, separate and may be expensive.

Logistics: discuss the following items with the farmer in detail: directions to the farm, estimated travel time, parking and turnaround information for car or bus drivers, availability of bathrooms and water, insurance, clothing/footwear needed, other desirable things to bring (e.g., drawing books, baskets), any safety considerations and special needs, and contingency plans for bad weather.

Preparation activities: Successful farm trips start with preparation in the classroom. This may include general discussion about such subjects



as seasonality, nutrition, plant and animal biology, geography, and specific agricultural practices (e.g., composting, mulching, cover cropping, pest management) and what local or regional means (maps are a great tool for this.) Some farms have written information they can provide about their place, products, growing practices, and customers.

Learning on the Farm

Greeting, orientation, and ground rules: The farmer (and other field trip hosts) greets and orients the students, including pointing out bathrooms and a lunch/snack spot and giving an overview of planned activities. Either the farmer or teacher should be explicit about ground rules, including places that are off limits, prohibited activities, cautions (e.g., poison oak, bees), appropriate behavior around animals, and other information about respectful and safe behavior.

Activities: Farmers experienced with field trips will have activities planned and will advise on and be prepared for a certain number of students for each activity. Common hands-on activities include planting seeds, transplanting seedlings, harvesting/gleaning, making compost, hunting for and identifying insects, milking cows, and climbing on tractors. Calmer activities include tasting, making flower bouquets, learning about cover crops and beneficial insects, touring an orchard or greenhouse, and discussing the wildlife on the farm.

Plan on rotating groups of students through several activities. It is also important to allow a little time

and a place for the children to play (check with the farmer) and imagine themselves as farmers.

Following Up

Back in the classroom: Follow-up activities can be basic, such as simply sharing impressions and writing and drawing in a journal. Farm field trip experiences may also foster deeper discussion about themes such as stewardship of the land, the price of food, a sense of place, and the relationships between farms and cities and farmers and consumers. Products brought back from the farm may be used for a cooking class. Seeds or plants from the farm might be planted in a school garden. Farm field trips can also provide an opportunity for family involvement by asking children to find out about their own family's history of involvement in farming and/or growing plants or raising animals. Another idea is to organize a classroom or school to subscribe to a Community Supported Agriculture (CSA) program.

Thanking the farmer: Farmers appreciate getting thank-you notes from the students. When students are appreciative and show how much they have learned, it encourages farmers to keep hosting field trips. Some farmers might facilitate continued contact by providing information about how and where to buy their products, selling food to the school food service, returning the visit, or simply sending the class a photo of the harvest or a newborn animal.

Note: The University of California Sustainable Agriculture Research and Education Program (UC SAREP) provided funding for a Farm Field Trip Guide for Farmers, which is the basis for this document and which appears on its Web site <<http://www.sarep.ucdavis.edu>>.

National Farm to School Program

Improving Small Farm Viability and School Meals

The National Farm to School Program links schools with local farmers to provide fresher, tastier, healthier school meals. When fresh, farm-direct, seasonal food is included in school lunch programs, both children and farmers benefit. When healthy school lunch choices are combined with nutrition education, farm visits, school gardens, and cooking projects in the classroom, children have a better opportunity to develop healthy eating habits that last a lifetime.

When fresh, nutritious food is offered in school lunch programs, children learn to make healthful choices. Children respond enthusiastically when they are offered a wide variety of fruits and vegetables. Fresh foods not only taste great but also contain more nutrients.

Farmers profit, too, with the Farm to School Program. Glorious fresh fruits, vegetables, and nuts are grown everywhere in California and are available directly from the farmers who produce them. By selling their fresh, seasonal produce directly to schools, farmers enhance their prospects of remaining viable contributors to the community.

Most people do not know where their food is grown. Food purchased at the grocery store and

found in school cafeterias has often traveled thousands of miles before it reaches the table. Some fruits and vegetables are stored for six months or more, losing a significant amount of their vitamins and flavor before they are consumed. Many fruits store and ship better when they are picked green and never have a chance to develop their full flavor and nutritional value. Choosing locally grown, farm-fresh foods helps conserve energy, is beneficial to the environment, and ensures that produce is ripe, tasty, and nutritious. Consider these questions:

- Where does the food served in your school come from?
- Can you identify which foods are grown locally?
- Who makes the decisions about what is served in your school lunch program?

If you want to start a Farm to School Program in your school, contact:

National Farm to School Program
The Community Food Security Coalition
P.o . Box 209
Venice, CA 90294

The National Farm to School Program is a project of the Urban and Environmental Policy Institute at Occidental College and is funded through the USdA Initiative for Future Agriculture and Food Systems program.



The Santa Monica–Malibu Unified School District

by Peggy Adams

The students in the Santa Monica–Malibu Unified School district can choose a salad bar lunch filled with fruits and vegetables right from the farmers market.

In the fall of 1997, the fruits and vegetables in McKinley Elementary School’s salad bar were replaced by seasonal items grown by regional farmers and prepared on site each morning. Participation in the district’s salad bar tripled when the farmers market produce was introduced.

Students toured the farmers market and noted that items grown in the farmers’ gardens were often featured in the school salad bar. This observation helped them connect to the source of their food. One student was featured on the local news, saying, “I love the salad bar because it’s healthy for your body.”

Through grants from the Nutrition Network, a federal and state program, the school district hired one staff member to coordinate the program and new employees at each cafeteria to prepare the fresh fruits and vegetables each day.

In 1998 the district began expanding the farmers market salad bar program to other schools with high proportions of low-income children. By 2001 the district had expanded the program to all 16 schools in the district.

The district has purchased a cooking cart for each school, providing an opportunity for chefs to come into the classroom and conduct cooking demonstrations. The program now includes regular trips to farms and to the farmers market, and plans are in the works to create plots in the school gardens devoted to growing produce for the school salad bar.

As more students began using the salad bar, the district food service director found that he was able to shift staff from other areas into the farmers market program. He believes that the program is cost-effective and able to support itself without grant funding. He can now focus on the benefits of the program and states, “Child nutrition is my new bottom line.”

Peggy Adams, Project director, Farm to School Program,
Urban and Environmental Policy Institute, Occidental College,
Los Angeles, California

