Expeditionary Learning
Learning Expedition Documentation Project

Farms and Food

Providing Healthy Food to all People

Grade 1

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Summary

This year-long expedition engaged first graders in an entire year of studying farms and foods. It wove skills of reading, writing, math, drawing and research with content in science, nutrition, health and social studies. Hands-on experiences include: working at farms and organizations that provide food to the homeless and building a garden at the school. The expedition combined academic lessons and the production of high quality student products with real life experiences – apprentice work at farms, dairies and apiaries and work in the soil to produce a garden with produce that was eaten by the class. Almost all the content focus areas for the year were woven into this study: science lessons in experimental technique using seeds and plants preceded work on the garden; lessons on Martin Luther King and social justice were connected to a study of Cesar Chavez and the farmworkers movement; and readers and writers workshops were centered in non-fiction and fictional material connected to foods, farms and healthy nutrition.

The expedition began with a case study of a local apple orchard, where the whole class was involved in research and worked together on-site and in the classroom, and included a good deal of language arts work. This was followed by fieldwork at a local farm, after which students chose to join a study group with classmates for in-depth research in one aspect of food and farms. The four study groups were: bees; fruits, vegetables & grains; dairy; and poultry. Each study group spent months learning about their topic, including field research at farm sites, class visits by experts, and hands-on work with foods. Study groups were responsible for teaching classmates about their topic and contributing a chapter for the whole-class Farm Book.

The expedition connected students to themes of service and social justice through a study of farmworkers and the farmworkers' movement, and then through a case study of a homeless shelter that provided healthy food for its clients through an on-site garden, greenhouse, apiary and aqua-culture tank. After fieldwork at this innovative shelter, students again joined study groups, this time to become experts in a local charitable organization that supplied food to the needy and homeless. Study groups were involved in field research and service for the organization they adopted. A culminating product of this work was a full-color calendar, professionally printed, with student writing and illustrations depicting student ideas about important ways that we can help all people to get access to healthy food. The calendar was sold in the community and given to all the organizations who were part of the work.

The expedition ended with a scientific study of seeds and plants, followed by the planting of a spring garden at the school. Students were able to create and eat a spring salad from the fruits of their work in this expedition.

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Guiding Questions

- Where does our food come from?
- How does food come from the farm to the table?
- How do people ensure justice for workers in the production and distribution of food?

Part One: Case Study of an Apple Orchard

Summary

The kick-off to our yearlong study of farms and food was an in-depth look at an apple orchard. Over a period of 4 weeks, students were able to focus on just one fruit before beginning to examine food production on a larger scale. This case study revolved around a visit to a local apple orchard where students learned about how apples are picked, the processes an apple goes through after it gets picked, the people who pick the fruit, and how the apple trees are cared for. Students gained familiarity with tools and machines used at the orchard, animals that help and harm the trees, and how apple trees change from season to season. Students were prepared for the fieldwork through read-alouds – they made predictions and looked at photographs of the things they would see. After the visit they recreated all aspects of the orchard and revisited the content through dramatic play, painting a mural, construction with blocks, or writing and drawing. Literacy activities included writing predictable texts about what they saw, labeling buildings and murals, and interactive writing. Students participated in cooking applesauce and apple crisp as well as careful observational sketches of an apple tree and of the apples themselves.

Part Two: Farms

Summary

Students spent five months of first grade enmeshed in a study of one aspect of a working farm. We kicked off this study with fieldwork at a local farm where students got the big picture of how a farm works – in particular, the animals that live there, what they provide to people, and how farmers take care of the crops and the animals. Following the fieldwork experience, students chose one of four study groups: bees, fruits/vegetables/grains, dairy, or poultry. Each study group had its own excursion and/or expert visitor and participated in a variety of hands-on learning experiences over a period of about 5 weeks. These experiences included cooking, sketching, building, dramatic play, taste tests, and re-telling and sequencing activities.

The bee study group visited local beehives and had a visit from a beekeeper who showed them the tools of the trade. They studied the life cycle of bees and built models of their life cycles with clay. They performed a dramatic play of the bees' jobs (worker bees, nurse bees, queen bee, etc.),

did interactive sketching/labeling of bees' bodies, and dissected, sketched, and built models of flowers. Finally, they planned and executed a blind taste test of different kinds of honey and collected data about the class preferences.

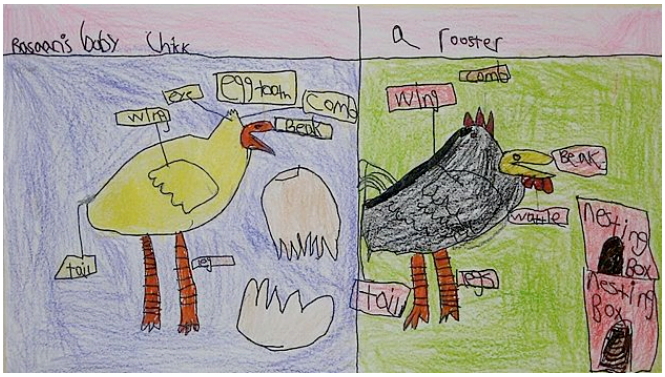
The fruits, vegetables, and grains study group began by sorting foods into categories. They ground wheat into flour and cooked with a variety of fruits, vegetables, and grains, making dishes such as pumpkin pancakes and pretzels. They made apple cider using an old-fashioned cider press. They did a number of observational sketches of produce and its seeds, and they retold their experiences, sequencing photos of the cooking and other activities. More advanced writers wrote sentences about what they did; others simply labeled photographs after ordering them. Finally, they planned and executed a blind taste test of different kinds of bread, collecting data about the class preferences.

The dairy study group visited a local dairy where they fed and milked the cows and then made butter out of the milk. They learned about different dairy animals and different kinds of dairy products. They did a variety of cooking projects, including making yogurt and ice cream in the class. After the cooking, they sequenced photos of the experiences and retold what they did, solidifying the steps and vocabulary and practicing sound-symbol correspondence by writing labels. They did interactive sketches/labeling of cows' bodies, both inside and outside, acted out how cows and other ruminants digest their food, and planned and executed a blind taste test of different kinds of cheese (goat, cow, and sheep), collecting data about the class preferences.

The poultry group is in charge of incubating and hatching eggs from a local farm. They set up the incubator, kept an incubation journal, watched the chicks hatch, and led tours of the chicks after they hatched. They cooked with different kinds of eggs (store-bought and farm-fresh), and candled eggs to see the embryos inside. They did interactive sketches/labeling of hens' and roosters' bodies and dramatic play of the life cycle of a chicken. They did experiments and dissections of eggs in order to learn the parts of an egg. Finally, they planned and executed a blind taste test of different kinds of eggs, collecting data about the class preferences.

After five weeks of study, students began the process of drafting pages and illustrations for a class farm book. Each study group was responsible for one chapter of the book and each student wrote and illustrated one page. Students brainstormed topics for the chapters, chose topics, and drafted nonfiction text about what they had learned. Meanwhile, they sketched draft after draft of the illustration that would accompany their text, receiving feedback from classmates and teachers after each draft. When their work was excellent enough they received large paper, thin black pens, and colors for their final draft.

While the drafting process was going on, the class studied non-fiction text features and each student crafted headlines and captions for his/her page. After several revisions, students received lessons on word processing and typed their own farm book pages for publication. The final farm books, as well as many of the study group projects, were presented at a culminating family presentation in February.



Part Three: Migrant Farmworkers

Summary

In February and March, the first graders spent about 4 weeks studying migrant farmworkers. This study was timed to intersect with our school's annual social justice assembly. The investigation involved reading a number of fiction and non-fiction accounts of migrant farmworkers' lives. We also reviewed the work of Dr. Martin Luther King, Jr. (a freedom fighter with whom students are already familiar), in order to compare him with Cesar Chavez and Dolores Huerta, who led the farmworkers' movement. Students learned about strikes, marches, and boycotts as tools of nonviolent protest, and contrasted living conditions of farm owners and farm workers. Students presented what they had learned at the social justice assembly in March.

Part Four: Access to Food

Summary

In March, the students took their farm studies one step further, exploring what happens when the food does not get from the farm to the table. This study began with a trip to ReVision House, a homeless shelter for women and children, that also has organic gardens, greenhouses, beehives, and tanks to raise tilapia fish. Prior to the trip, we read several fictional books about homeless people and animals. Students discussed what people need to live and they made connections to living conditions of the migrant farm workers. Through dramatic play with puppets, students did a role-play about a family losing their home. In previewing the ReVision House trip, we also made a connection to activists – discussing how some freedom fighters are famous (Dr. King, Cesar Chavez, Dolores Huerta), and other activists in our community do things like help people get places to live and get food. This led to a discussion about food and what happens when people do not have access to healthy food.

After the field trip to ReVision House, students worked in small groups to recreate the many components of the shelter. This included a model of the aquaculture tanks, a model of the shelter, building the greenhouses out of blocks, creating a diorama of the shelter, and role-playing with puppets.

At the end of March, first graders broke up into 5-6 study groups to learn more about one community agency that helps people in the city get access to healthy food. Students from both first grade classrooms were combined into one study group to become experts on that specific agency in our community. Teachers, community teachers, and parents or community members led study groups. Past agencies have included: Boston Nature Center community gardens, City Fresh (they make our school lunches), Long Island Shelter and Farm (a homeless shelter for ~400 men and women and organic farm on a Boston harbor island), Greater Boston Food Bank, Haley House (both a cafe in Roxbury and a soup kitchen and shelter in the South End of Boston), The Food Project (they grow healthy food for residents of the city and suburbs and provide youth leadership opportunities), WIC, Women's Lunch Place (a women's soup kitchen serving lunch in Boston).

First graders met for 3-4 weeks (usually 2 or 3 times a week) in their study groups. In the study students got an overview of their agency. They learned how to interview people and practiced asking interview questions for their field trip to their agency. Interview questions:

- Why do you think some people don't have enough food?
- What do you think should happen to make this better? (What could the government do? What could individuals do? What does your agency do?)

After the trip, they compiled the interview results, and revisited the information they gathered through acting out, building models, drawing, and writing. Students also composed thank you letters to their agencies.

After several weeks in study groups, first graders brainstormed solutions to hunger as a whole class. They listed all of their different ideas and each class voted on the 12 most important ways we can help people have enough healthy food. These became the 12 months of our calendar project. Students then picked which page of the calendar they would like to design a picture for. Four students worked on several drafts and revisions of each month (or idea) for the calendar. They looked at exemplars from previous years, created rubrics of what excellent work looks like, and gave each other feedback. The final calendar illustrations were sent to the printers to make the calendars. We donated several calendars to the agencies we visited and sold them in the community.

Part Five: Plants and Seeds

Summary

From April-June first graders studied growing things in science (we modified the *Insights Growing Things* curriculum) and worked to create a spring garden in our schoolyard. We balanced indoor science experiments on seed dissections, germination trays, and bean plant life cycles with digging

and clearing the soil, mixing in compost and manure, planting radish, peas, lettuces, arugula, mustard greens, and herbs. We integrated math into the garden measuring the beds and plants with standard and nonstandard units. After several weeks of weeding, watering, careful observations and sketching, our plants were ready to harvest into a delicious salad. We made a spring salad the last week of school as a delicious culmination of our farms and food studies.

Major Projects

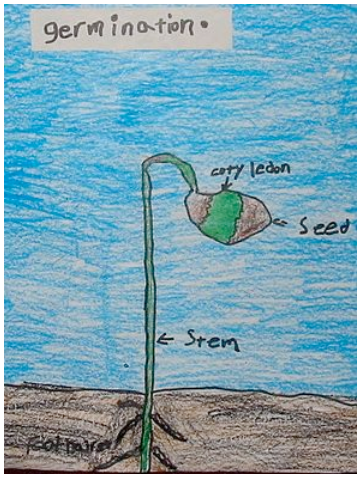
Project One: Farm Book Pages

Description

We began working on the farm books by studying the difference between fiction and nonfiction during both Readers and Writers Workshops. We sorted books into piles, made lists of kinds of nonfiction, and explored common features of nonfiction texts. Students then wrote how-to's as outlined in the Lucy Calkins first grade writing curriculum. Students also reviewed retelling skills that they learned earlier in the year during Readers Workshop and practiced using transition words when retelling a story or experience.

In order to start writing their own farm book pages, each study group brainstormed what their chapter should include and the teacher wrote their ideas on large post-its. Students then chose which topic they would like to address on their page (with input from the teacher, who guided them toward topics that were appropriate for their writing ability).

The lessons on writing the nonfiction texts roughly followed the process outlined in the Calkins Non-Fiction Writing Unit. Students jotted down "dash facts" about their topic on large post-it notes, after extensive modeling by the teacher. Once they had their notes, they put the post-its into a logical order and began to turn each dash fact into a complete sentence or two, writing on large, lined index cards. These index cards were easier to re-order and re-write than lined paper.



The teacher then planned mini-lessons by thinking about the 4 types of writing students were most likely to do: procedural (telling about something they did in the study group); a list (i.e. bee body parts); change over time (i.e. how an embryo changes inside an egg); and "all about" (i.e. all about bee hives). The teacher modeled these most common types during the first few days of writing.

The work continued as students did turn-and-talks about their topics and asked each other questions to elicit more information. There were mini-lessons about voice, the use of story in nonfiction, varying sentence structures and word choices, topic

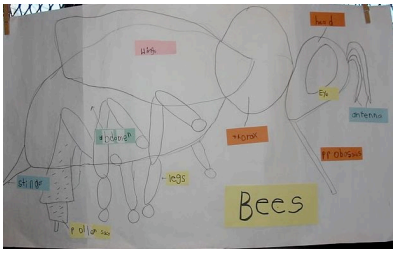
sentences, strong beginnings, and strong endings. Students shared work along the way with partners who told them one thing they understood and one thing they didn't understand. They revisited the order of the cards and carefully numbered them.

When a student received feedback on his/her writing from both peers and teachers, and had worked to revise according to that feedback, he or she was ready to type. The class went to the computer room for word-processing and basic computer skills lessons, including how to log in, start Word, change fonts and sizes, save a document, and use backspace, space, and shift keys. Students then began to type their farm book pages. More revising and editing occurred at this time, especially editing, as they were taught to use spell-check. The computers were an incentive for students to work hard on getting their writing to the point that they were ready to type.

The illustrating of the farm book pages happened primarily during our Experiential Education work time every afternoon. We began by looking at farm books from previous years and making a list of characteristics of excellent illustrations, such as:

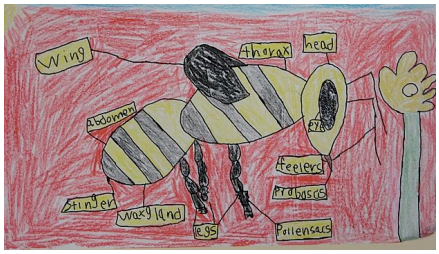
- Big pictures
- Lots of detail
- Whole page is full
- Lots of color
- Labels?
- Pictures match the words
- Realistic and scientific (no cartoony animals or smiling suns, for example)

Students began preliminary sketches on 8.5 x 11 paper, using pencil only.



Students were next introduced to the idea of a "draft." The class looked at an example of the progression of illustrations from a previous year and talked about how many drafts the student did and how the illustration changed over time. For each draft, the teacher noted on sticky notes how it improved from the previous draft. Students then either added to their sketch from the day before or began a second draft.

Soon after, the critique process began. The teacher posted 5 sketches on the board and asked for feedback or suggestions from students. She wrote feedback on stickies and stuck them on the sketches. Students received age-appropriate feedback from their peers, such as "Why is the farmer standing in the sky?" They then revised their work in subsequent drafts. This process of providing feedback continued each day, either in whole-class meetings or in small, teacher-led groups.



Other mini-lessons taught throughout the illustrating process included:

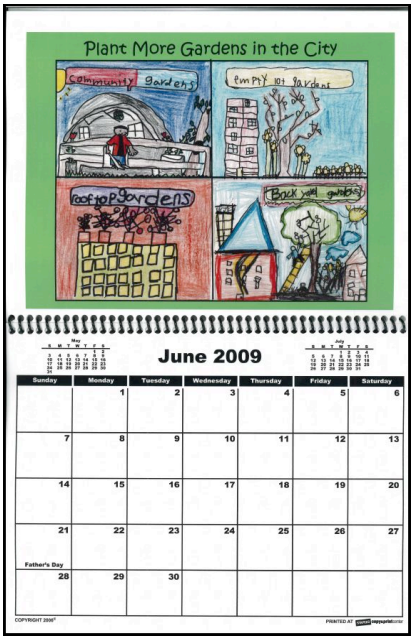
- How to divide the page to show steps or different stages/parts

- How to write labels (make sure you get the spelling correct; make a box around your label after you write the label; write bigger than you think you have to so you can trace the words, but not too big; make it very neat; draw a line or an arrow to the thing you are labeling)
- How to make your picture bigger on the big paper
- How to trace with the black pen (steady hand, cover up the pencil exactly on the lines of the pencil)
- How to add color and which tools to use for coloring large/small spaces
- How to color in the background, including using different background colors for different parts of the illustration in order to set them off

When students had completed a number of pencil drafts on 8 ½ by 11 paper, they were allowed to enlarge their draft onto the big drawing paper on which the final book was published. This large pencil draft had to have been complete enough and had to have received feedback before they were allowed to trace it with a black pen. After the tracing was complete, they received crayons and colored pencils for adding color. Each addition of a new material provided an incentive for students to do high-quality work.

Finally, students began to prepare for the family presentation of the farm books. They practiced reading poems fluently during Readers' Workshop, learning about pacing, expression, attending to punctuation, and articulation. They made lists of what good public performance looks like, including body language, eye contact, volume, and clarity of speaking voice. They scored each other using fluency and presentation rubrics during Readers' Workshop and took their farm book pages home each night to rehearse with their families

Project Two: Calendar



Description

In the first grade *Access to Food* study groups, students met to compile the results of their interviews and what they learned about all the different ways their agency helps people get access to healthy food. After meeting in their study groups, the first graders came together as a whole class. They shared all the ideas they had learned in their study groups about ways we can help people get healthy food. The teacher led shared writing lessons with the class to generate a long list of ideas. From this list, the students voted on the ones they thought were the most important. The teachers from the two classes met together to compare the lists and select the 12 ideas that all the first graders thought were most important.

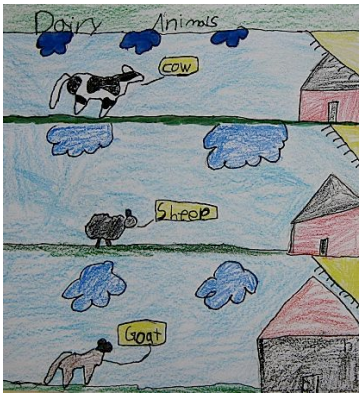
The teacher introduced the concept of a calendar to the class. Over several days, students got an opportunity to explore looking through calendars in small groups at their tables and sharing with

partners what was the same and different about the various calendars. Each of the two first grade classes was responsible for 6 months of ideas for the calendar.

Students got to select which idea they would like to work on (four students per idea). The teacher met with the four students working on each idea (month of the calendar) to come up with four parts to be included for that idea. Each student illustrated one part of that idea.

The class then looked at the previous year's calendar and came up with a list of what makes an excellent illustration. For example:

- Clear Heading
- Illustration clearly shows its message
- Illustration is zoomed in on just the important parts
- The whole picture is colored in (no empty spaces)
- Illustration looks realistic (no smiling sun or lollipop trees)
- Illustration is outlined in black pen
- Illustration is colored in neatly
- These ideas become a rubric for the students to follow



First graders began their drafts on an 8.5 x 11 paper folded into quarters, using pencil only. As they finished one draft, they could use the other three squares of their paper for additional drafts. Groups of students met with a teacher to give and receive feedback. Students worked on additional drafts (usually 4-8) until they had an illustration they felt was their best work. Then students received a black pen to outline their illustration, labels and heading. Next they colored in the illustration with crayons or colored pencils. Similar to the farmbook pages, each new material provided added incentive.

The teacher scanned in all 4 illustrations for each month to create the calendar and then it was sent to a printer.

Content and Skill Standards Assessed in the Learning Expedition

<u>Reading</u>

- I can identify the difference between fiction and non-fiction text and sort books according to those distinctions
- I can make text-to-self and text-to-text connections using texts about migrant farmworkers.
- I can deepen my understanding of non-fiction texts by asking questions and making predictions.

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Writing
- I can label art and construction projects.
- I can identify non-fiction texts and text features, including topic sentences.
- I can craft headings, captions, and labels for farm book pages.
- I can examine and identify models of non-fiction text and illustrations.
- I can write a non-fiction text by moving from "dash facts" through the revision process to a final published page.
- I can compose an appropriate thank-you note after a fieldwork visit.
- I can create headings and labels for calendar pages.

Math
- I can plan and execute a blind taste test and collect data about class preferences.
- I can measure plants and a garden with nonstandard units of measure.
- I can sort and count seeds in groups of 10's and 1's.

Character (performance and relational)
- I can conduct field interviews with government and non-governmental agencies to collect data about food distribution.
- I can revise both my written and art work based on feedback from peers and the teacher.
- I can provide appropriate and helpful feedback to my peers on their written and artistic work.

Science and Technology
- I can explain how an apple gets from the orchard to the market.
- I can explain how various types of food are produced and collected on a farm.
- I can identify what plants and animals need to survive and grow.
- I can explain how a bean plant grows and changes over time.
- I can use basic computer and word processing skills to create book pages for publication.

Social Studies
- I can make connections between freedom fighters like Dr. Martin Luther King, Jr. and Cesar Chavez and Dolores Huerta.
- I can explain what migrant farmworkers lives are like and describe their fight for their rights.
- I can share some ideas about how we can help people get access to food (and shelter).

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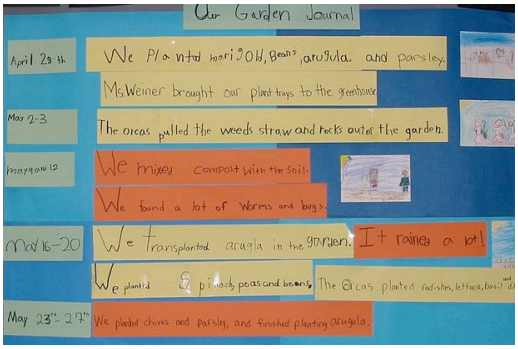
Visual and Performing Arts

- I can revisit content through dramatic play, mural painting, block construction, role-play with puppets, and drawing.
- I can create realistic illustrations to accompany text about farms and food.
- I can identify and explain how body language, eye contact, volume, and clarity of speaking voice can affect a public performance.
- I can incorporate strategies such as pacing, expression, attention to punctuation, and articulation in a public reading of a poem.



Health and Wellness

- I can explain how different agencies help people get healthy food (what they need to live).
- I can contribute to planting and caring for a food-producing garden.

Connections to State and District Standards

Science

Life Science

- Recognize that animals (including humans) and plants are living things that grow, reproduce, and need food, air, and water.
- Recognize that plants and animals have life cycles, and that life cycles vary for different living things.

History and Social Science

Geography

- Identify temporal sequences such as days, weeks, months, years, and seasons.

Economics

- Give examples of products (goods) that people buy and use.
- Give examples of services that people do for each other.
- Give examples of the choices people have to make about the goods and services they buy (e.g. a new coat, a tie, or a pair of shoes) and why they have to make choices (e.g., because they have a limited amount of money).

Individuals, Families, and Communities Now and Long Ago

- After reading or listening to stories about famous Americans of different ethnic groups, faiths, and historical periods (e.g., Cesar Chavez, Dr. Martin Luther King, Jr., Rosa Parks) describe their qualities or distinctive traits.

Arts

Visual Arts

Observation, Abstraction, Invention, and Expression

- Create 2D and 3D artwork from direct observation.

Critical Response

- Explain strengths and weaknesses in their own work, and share comments constructively and supportively within the group.

Methods, Materials, and Techniques

- Create artwork in a variety of two-dimensional (2D) and three-dimensional (3D) media.

Acting

- Pretend to be someone else, creating a character based on stories or through improvisation, using properties (props), costumes, and imagery.

Health

Nutrition

- Identify the connection between food served in the home with regional food production.
- Describe how food choices are influenced by availability, individual and family preferences, media, and background, and identify healthy foods within various social groups.

Community and Public Health

- List the jobs carried out by people at school and in the community that support health and success in school.

Language Arts

Oral Presentation

- Give oral presentations about personal experiences or interests, using clear enunciation and adequate volume.
- Maintain focus on the topic.

Nonfiction

- Identify and use knowledge of common textual features (title, headings, captions, key words, table of contents).

Writing

- Write or dictate letters, directions, or short accounts of personal experiences that follow a logical order.
- Write or dictate research questions.

Revising

- After writing or dictating a composition, identify words and phrases that could be added to make the thought clearer, more logical, or more expressive.

Organizing Ideas in Writing

- Arrange events in order when writing or dictating.
- Arrange ideas in a way that makes sense.

Consideration of Audience and Purpose

- Use a variety of forms or genres when writing for different purposes.

Standard English Conventions

- Use correct standard English mechanics such as:
  - Printing upper- and lower-case letters legibly and using them to make words.
  - Separating words with spaces.
  - Understanding and applying rules for capitalization at the beginning of a sentence, for names and places ("Janet," "I," "George Washington," "Springfield"), and capitalization and commas in dates.
  - Using correct spelling of sight and/or spelling words.
  - Using appropriate end marks such as periods and question marks.

Organizing Ideas in Writing

- Arrange ideas in a way that makes sense.

Research

- Generate questions and gather information from several sources in a classroom, school, or public library.

Writing

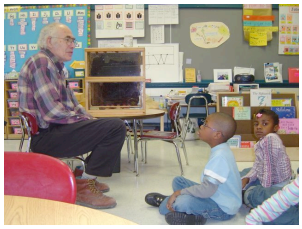
Informational/expository writing

- Write or dictate letters, directions, or short accounts of personal experiences that follow a logical order.
- Arrange events in order when writing or dictating.

Connections to the Community and Larger World

Fieldwork

- Fieldwork at Carlson Orchards, Harvard, MA
- Fieldwork at Drumlin Farm, Lincoln, MA
- Small-group fieldwork making pretzels at Boston Pretzel, Jamaica Plain, MA
- Small-group fieldwork at Clark Cooper Community Gardens at the Boston Nature Center, Mattapan, MA
- Small-group fieldwork at the Food Project, Roxbury, MA
- Small-group fieldwork at Greater Boston Food Bank, Boston, MA
- Small-group fieldwork at Haley House soup kitchen and/or bakery, Boston, MA
- Small-group fieldwork at Women's Lunch Place soup kitchen, Boston, MA
- Small-group fieldwork to see beehives at Leland Community Garden, Dorchester, MA
- Small-group fieldwork at the Farm at Long Island Shelter, Boston Harbor Islands
- Fieldwork at Revision House Urban Farm (homeless shelter with an organic farm), Dorchester, MA
- Small-group fieldwork at Women, Infants, and Children (WIC), Jamaica Plain, MA



Experts

- Visit from a local beekeeper
- Eggs for hatching lent by Fiddlehead Farm, Berkley, MA, followed by a spring visit by the farmer and several adult chickens
- 2nd graders (former 1st graders) sharing the farmbook drafting process

Service Learning

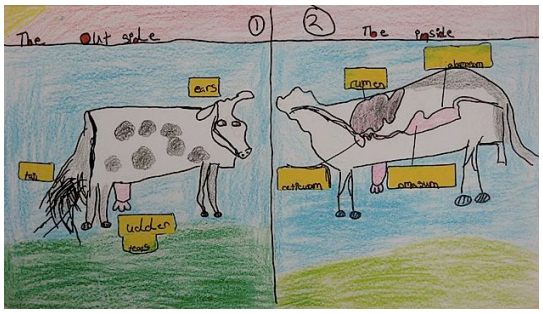
- Visiting and helping in community food agencies (i.e. helping to prepare and serve food at the Haley House soup kitchen)
- Donating calendars to food agencies
- In the past, some study groups have participated in specific service projects for their agency (i.e. a toiletry drive for the Long Island Shelter, collecting toys for the ReVision House daycare)

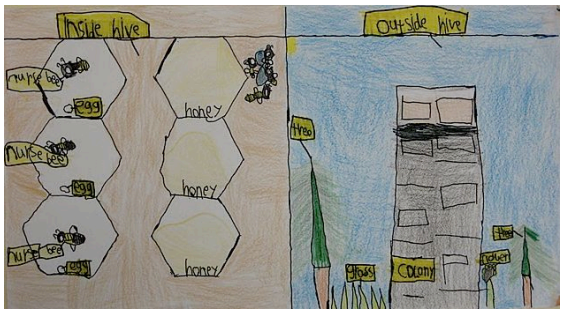
Exhibitions

Part Two

The farm study culminated in a family presentation of the farm books as well as many projects and products from the study groups. Each student's farm book page was on display gallery-style in the school auditorium. In addition, each student got on stage alone to read the text of his/her page to

the audience, while an image of his/her illustration was projected on the big screen. In preparation for these presentations, students learned about oral presentation skills, including body language, eye contact, fluency and expression, and articulation.



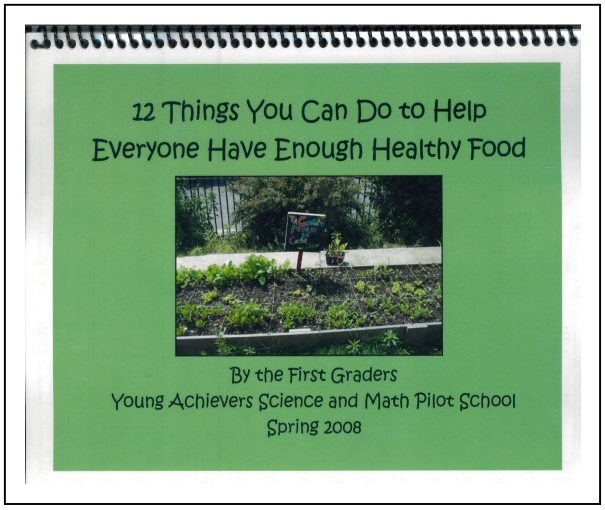


Part Three

Each year, the first grade students present something related to migrant farmworkers at the school's social justice assembly. During this year's assembly presentations included recitations of bilingual poetry about migrant farmworkers, explanations of the similarities and differences between Cesar Chavez and Dr. King, and recitation of quotes from Dr. King and Cesar Chavez about freedom and justice.

Part Four

The first graders culminated their *access to food* unit with the creation of a calendar which represented their ideas about ways we can help people have enough healthy food. Several copies of the calendar were donated to the food agencies we visited and each student took a copy home. We also sold copies of the calendar to members of our school community and had them for sale in a couple of local stores. Students also made a video for our end-of-year assembly, in which groups of first graders read their heading for each calendar page.



Expeditionary Learning
Learning Expedition Documentation Project

Calendar

	September	October	November	December	January
Farms and Food	Apple orchard Neighborhood walks to observe and collect seeds.	Drumlin Farm visit	Farm study groups		Farm books: drafting, revising, final product Family presentation preparation
Curricular Integration					
Reading	Establishing routines and reader response	Test-to-self / text-to-text connections	Fiction vs. non-fiction	Fiction vs. non-fiction / retelling	Non-fiction text features
Writing	Sketching	Personal narratives / reflections	How-to books	Non-fiction writing	Revising and editing
Math	Number (counting and combinations); apple taste tests	Number (addition and subtraction story problems using farm vocabulary and content); pumpkin seed counting		Data: taste test surveys	

	January	February	March	April	May/June
Farms and Food	Farm books: drafting, revising, final product Family presentation preparation	Family presentation Migrant farmworkers	Access to food introduction ReVision House visit Gardening / growing things (plants and seeds)	Food agency study groups and visits	Calendar project Planting, watering and weeding garden Harvest salad
Curricular Integration					
Reading	Non-fiction text features	Fluency	Visualizing and imagery	Predictions	Questioning
Writing	Revising and editing		Descriptive writing		Letter-writing
Math		Number (addition and subtraction story problems using plants and ReVision House vocabulary and content)		Measuring the garden	Geometry (sketching 2D and 3D shapes)

Expeditionary Learning
Learning Expedition Documentation Project

Detailed Monthly Calendar

September- mid October
Guiding question: How do apples get from the tree to the store?

- Whole class fieldwork at apple orchard
- Students re-visit and learn material in small group projects (i.e. mural, block building of orchard, book)

Mid October
Guiding question: What are the elements of a working farm?

- Whole class fieldwork at Drumlin Farm
- Reflections and dramatic play on elements of the farm

November
Guiding question: Why is (poultry/ dairy/ bees/ fruits/vegetables/and grains) important to the farm?

- Small study groups learn about one content area
- Study group excursions and expert visitors
- Research and reflection through books, writing, illustrating, dramatic play, building or models

December-February
Guiding question: What can you do to make an excellent farm book page?

- Learn about elements of non-fiction books
- Outline, draft, revise writing and illustration of farm book page
- Give and receive feedback, look at exemplars to produce excellent work
- Type final draft/color final illustration
- Rehearse reading page for the family presentation
- Produce an outstanding family presentation

Late February - Early March
Guiding question: Who are the people who pick our food? What happens if their needs are not met?

- Brainstorm who harvests our produce
- Stories, videos, and dramatic play about migrant farmworkers and their lives
- Compare and contrast different freedom fighters (i.e. Cesar Chavez and Dr. Martin Luther King)
- Present for social justice assembly

Late March-April
Guiding question: What happens when the food doesn't get to your table? How do agencies in the community help people have access to healthy food?

- Brainstorm what people need to live (connect to what plants need to live)
- Visit ReVision House and small group projects/ dramatic play about the shelter, farm, and aquaculture tanks
- Study groups to learn about community organizations who help people get access to healthy food
- Research, interview, reflect, and write about community organization in study groups

Expeditionary Learning
Learning Expedition Documentation Project

May-June

Guiding question 1: How can we help make sure that everyone has access to enough healthy food?

- Compile a list of what we have learned to help make sure everyone has access to healthy food
- Vote on the 12 most important
- Each student creates an illustration for calendar (through a series of drafts, feedback, and revisions)
- Publish and print calendar to give to community agencies, and sell to families and the school community

Guiding question 2: How can we grow our own food?

- Growing things experiments
- Mix compost and/or manure in garden
- Plant, water, and weed garden
- Harvest a spring salad