



My Food Is From ...

Adapted from article by Christine Anne Royce • *Science & Children* • Vol. 50 • Issue 3

Time	Grade Level	Content Area [s]
60 minutes	Grades K-5	Life Science, Agriculture and Food

Objective

For Grades K-2: How Did That Get in My Lunchbox?

Students will describe the steps of how a particular food made it into their lunchbox.

For Grades 3-5: Just Where in the World Did My Food Come From?

Students will identify where familiar foods are produced.

Materials

For Grades K-2: How Did That Get in My Lunchbox?

- Slices of bread
- Fruit [apples, oranges, bananas]
- Peanut butter
- Jelly
- Student data sheet
- Individual serving containers of fruit such as fruit cocktail or dried fruit
- *How Did That Get in My Lunchbox?*
By Chris Butterworth

For Grades 3-5: Just Where in the World Did My Food Come From?

- Pictures of open-air or farmers' markets, commercial fields, international marketplaces, and fields with a variety of crop types
- Student data chart
- Large map of the United States and/or the world
- Small maps for student use
- Library books or internet access for research
- *To Market, to Market*
by Nikki McClure Abrams

Activity Outline

For Grades K–2: *How Did That Get in My Lunchbox?*

- 1 **Engage:** Engage the students by holding up a common food they might find in their lunchboxes or as part of a school lunch program. As you ask the students to identify the objects, ask them how the objects are all similar. Through the use of guiding questions, lead the students to the fact that they are all foods that can be found in their lunchboxes. Introduce the story by showing them the cover of the book and asking them to consider a related question: So, how do foods get into your lunchbox?
- 2 **Explore/Explain:** After having the students provide possible answers to how foods get into their lunchboxes, read the story to them, taking time to look at the individual processes that a food goes through. It will need to be explicitly pointed out to students that sometimes a food has other things added before it becomes a final product. Once you are through reading the story, ask the students to make a list of items that are in their lunchbox (e.g., a sandwich, fruit, cookies, and so on). Using the data sheet, ask students to identify the series of steps that the food might go through before it becomes their lunch.
- 3 **Elaborate:** Once students have explored basic food items, ask them to think of other items that are made from those items. For example, many of the individual serving sizes of peaches or pears or fruit cocktail or the dried fruit products are made from fruit, but go through one or more additional steps to be formed into that product. Have the students brainstorm a list of additional products that came from the original list they explored. This activity can also be expanded by asking them to take the object in their lunchbox and try to work backward to identify the process in reverse.
- 4 **Evaluate:** Evaluation of student understanding can be done throughout the lesson during the discussion of the process and through the student's completion of their data sheet. Finally, using the similar approach to the illustration in the story *How Did That Get in My Lunchbox?*, ask the students to illustrate the stages that their chosen food went through before becoming lunch.

Activity Outline

For Grades 3–5: *Just Where in the World Did My Food Come From?*

Before beginning this lesson, identify some locally grown crops from your geographic region and some foods that are not locally grown.

- 1 **Engage:** Ask students to explain what a market is. If possible, have some pictures of a variety of markets to show them and have them describe what they see in the photos. Ask students to generate a list of foods that they might see in a local market as well as foods they don't think they would see in a local market. Read the story *To Market, to Market* to the class, stopping at each of the foods presented and allowing the students to generate a chart on the board identifying what the food is, how the food is harvested or processed, and where the food comes from. As you progress through the text, ask the students if they have ever tried the different foods mentioned or if they know from where the foods originate. When you are done with the book, ask students to generate a list of foods they think come from local areas, as well as foods that they know are produced elsewhere. This list will serve as the beginning list of identifying a food the students want to research to determine (1) where it is grown or produced, and (2) how it gets to the local market, whether the destination is a farmers' market or supermarket.
- 2 **Explain/Elaborate:** Allow each student or team of students to pick a food they would like to research. Using the data sheet, ask them to use either library books or the internet to answer the questions about where the food comes from and how it is harvested. You can also provide a map for the students to use to identify where their food comes from. Once they have investigated the origin of their food choice, they can share their results with the class. To show that our food comes from a variety of areas, you can aggregate the individual student responses into a larger class response by using a large classroom map of the country or world. The different food choices selected by students can be assembled into one larger presentation of where food comes from before it arrives at the local market.
- 3 **Evaluate:** Evaluation occurs as the students present their information about the food choice that can determine if they understand local versus nonlocal foods, how foods are transported to an area, and the idea that the availability of certain foods depends on the season in which they are grown.

Safety

Check for food allergies before bringing any food into the classroom.

Class Discussion Question

3-5: Where do you think the food at markets comes from?

Differentiation

3-5: Within the text, there are also additional terms that relate specifically to the individual processes for making a food such as cheese. These terms may be included and, depending on the students' understanding of where foods originate, you may want the older students to engage in a similar activity to the one mentioned earlier for younger students.

Formative Assessment

3-5: Teachers are able to assess and evaluate students' understanding throughout their research by asking questions such as "Is your food grown locally, or does it need to be transported to our area?" and "Why do you think that food needs to be produced elsewhere and can't be produced or grown in this area?"

Post Assessment

K-2: In examining the datasheet, it should be clear that the student is using vocabulary and concepts presented in the story and is able to explain clearly how foods are processed.

3-5: Students present information about a particular food including where it originated from and how it was transported to an area.



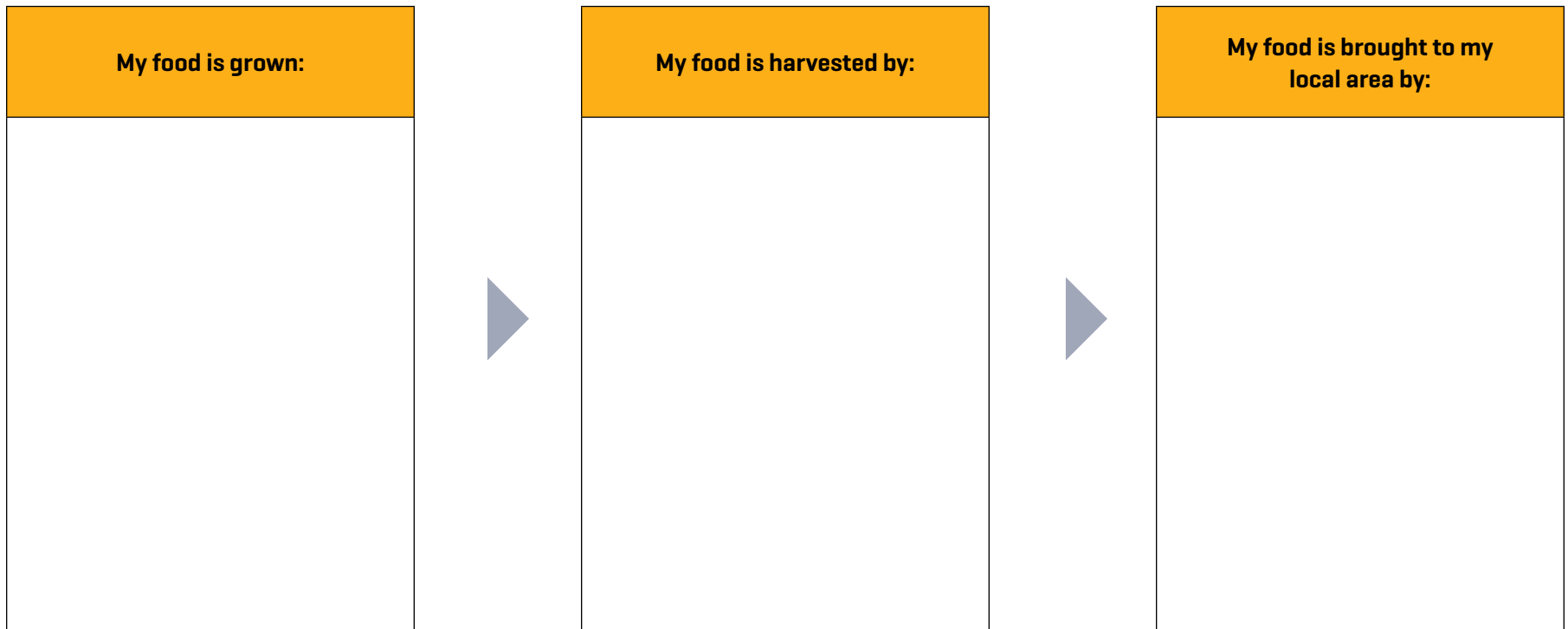
Student Data Charts

Where in the World Did My Food Come From?

The food I want to research is: _____

Using reference materials and the internet, complete the following sequence chart.

My food is grown:	My food is harvested by:	My food is brought to my local area by:



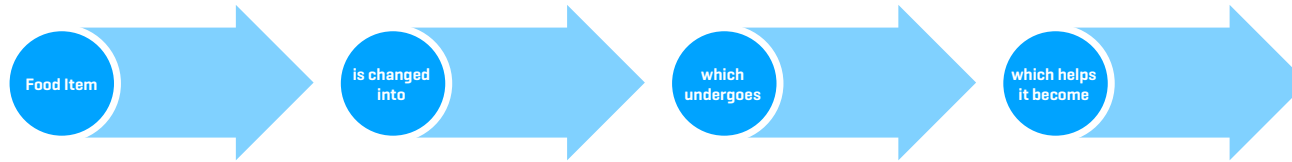
Information I have learned about my food includes:

Put an X on the areas where your food comes from.



Student Data Charts

How Did That Get In My Lunchbox?



Students can identify their food item and draw a picture of what it would look like through the stages.

My food item comes from:	This item is changed by:	The final product is:
When it goes to the food plant, it becomes:	What happens to the product when it is changed?	Describe how the new product is used.

Observations and sketches	Observations and sketches	Observations and sketches



Farmers' Market



Commercial Fields



Damnoen Saduak Floating Market in Bangkok, Thailand



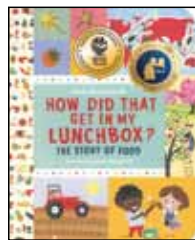
Rye and wheat varieties

My Food Is From...

By *Christine Anne Royce*

We all have our favorite foods for lunch. Many students have not thought about how that food got into their lunchbox. Using two new books, students focus on thinking about just that as they trace the path back to where the food originated and the process it went through to bring a smile to their face.

This Month's Trade Books



*How Did That Get in My Lunchbox?
The Story of Food*
By Chris Butterworth
Illustrated by Lucia Gaggiotti
Candlewick Press. 2011.
ISBN: 978-0-7636-5005-6
Grades K–3

Synopsis

Children often bring their lunches to school, but how the foods get into their lunches is the focus of this story. Making bread, gathering fruit, and making chocolate are a few of the processes mentioned in this book. Suggestions on choosing healthy foods are also provided for the reader. This book was selected as a 2012 Outstanding Science Trade Book.



To Market, to Market
Written and Illustrated by Nikki McClure
Abrams. 2011.
ISBN: 978-0-8109-9738-7
Grades 2–6

Synopsis

“How did the food get there?” is a question that is explored as a young boy and his mother visit the market on their weekly trip. As they make their way through their shopping list, information about how each food was produced or grown is presented to the reader. Common foods like apples and cheese are discussed as well as not-so-common foods like smoked salmon and blueberry turnovers.

Curricular Connections

The following activities emphasize one of the scientific practices described in *A Framework for K–12 Science Education*—asking questions. Students must focus on answering an investigable question using available information and data. While they are not designing their own experiment, they are engaging in “establishing what is already known” (NRC 2011, p. 50). The *Framework* goes on to describe the progression that leads to mastering this practice, stating, “Students at any grade level should be able to ask questions of each other about the texts they read” (p. 56).

Students must also interpret information from the illustrations, online sources, and food packaging itself to determine where their food comes from. This helps them understand and determine the information that is being communicated visually and through other media, tying into the idea that “Scientific thinking is communicated in many different ways including oral, written, mathematical, and graphical representations of ideas and observations” (Partnership for 21st Century Skills 2008, p. 5). ■

Christine Anne Royce (caroyce@aol.com) is a professor at Shippensburg University in Shippensburg, Pennsylvania.

References

- National Research Council (NRC). 1996. *National science education standards*. Washington, DC: National Academies Press.
- National Research Council (NRC). 2011. *A framework for K–12 science education: Practices, crosscutting concepts, and core ideas*. Washington, DC: National Academies Press.
- Partnership for 21st Century Skills. 2008. 21st century skills map. Partnership for 21st Century Skills and National Science Teachers Association. www.p21.org/storage/documents/21stcskillsmap_science.pdf


For Grades K–3: How Did That Get in My Lunchbox?

Purpose: Students will describe the steps of how a particular food made it to their lunchbox.

Engage

A great time of day to do this lesson would be before or after lunch when students have food on their minds. Engage the students by holding up a common food they might find in their lunchboxes or as part of a school lunch program, such as a slice of bread, a piece of fruit, or a jar of peanut butter or jelly. As you ask the students to identify the objects, ask them how the objects are all similar. Students will likely provide answers such as “They are all foods,” “We eat them,” and “You can buy them at the store.” Through the use of guiding questions, lead the students to the fact that they are all foods that can be found in their lunchboxes. As a connection to the Common Core for Math, the students can also create a simple bar graph indicating their favorite lunchbox food or even if they are “buying” or “packing” their lunch that day (CC Math Measure-

Materials

- Slices of bread
- Fruit (apples, oranges, bananas)
- Peanut butter—Check for food allergies before bringing any food into the classroom. 
- Jelly
- How Did That Get in My Lunchbox? student data sheet (see NSTA Connection)
- Individual serving containers of fruit such as fruit cocktail, Fruit Roll-Ups, and so on

ment and Data: Represent and Interpret Data). Once the students are focused on the idea of what they find in their lunchboxes, introduce the story by showing them the cover of the book and asking them to consider a related question: So, how do foods get in your lunchbox?

Explore/Explain

After having the students provide possible answers to how foods get into their lunchboxes, read the story to them, taking time to look at the individual processes that a food goes through (CC ELA Connection: Reading Standards for Informational Text, K–5: Key Ideas



and Details). Key terminology that students will be introduced to through the text and related study includes *factory, plants, animals, dairy, product, and process* (CC ELA Connection: Language Standards: Vocabulary Acquisition and Use). Not every food goes through the same process, so understanding that there is a general series of stages between the initial harvest or collection and the final product is the focus for this activity. For example, when looking at the example for bread, other items such as yeast and sugar and water are added to flour made from grains, and the dough is baked. It will need to be explicitly pointed out to students that sometimes a food has other things added before it becomes a final product. Throughout the text, the teacher can stop and ask students if they have seen tomatoes growing on a plant or cows being milked at a farm to help them make the connection that all foods need to be either grown or raised on some type of farm. Connecting the process to the illustrations and pictures in the text will help students to visualize the process as well. Furthermore, young students as well as English language learners are often more capable of sharing their knowledge and understanding through illustration rather than written communication (CC ELA Connection: Reading Standards for Informational Text, K–5: Integration of Knowledge and Ideas).

Once you are through reading the story, ask the students to make a list of items that are in their lunchbox (e.g., a sandwich, fruit, cookies, and so on). While all of these items can be found in a lunchbox, some of the items will be better to use for identifying where it came from. Examples that can be used include objects mentioned in the story like sandwich bread, fruit, peanut butter, jelly, and deli meats. Using the data sheet, ask students to identify the series of steps that the food might go through before it becomes their lunch.

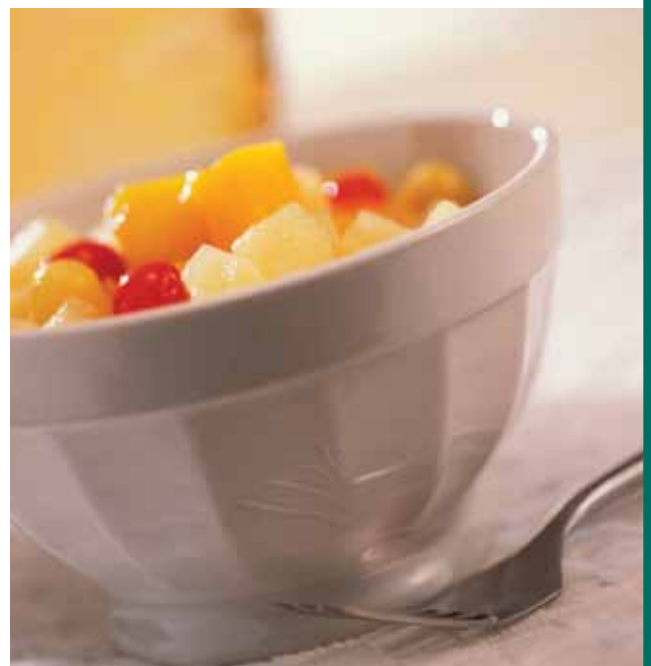
Elaborate

There are several ways that this activity can be expanded. Students can take the food process one step further to packaged snack foods. Once students have explored basic food items, ask them to think of other items that are made from those items. For example, many of the individual serving sizes of peaches or pears or fruit cocktail or the dried fruit products such as Fruit Roll-Ups are made from fruit but go through one or more additional steps to be

formed into that product. Have the students brainstorm a list of additional products that came from the original list they explored. This activity can also be expanded by asking them to take the object in their lunchbox and try to work backward to identify the process in reverse. This activity would also be a great foray into talking about diverse foods from different cultures. For example, some tortillas are made from flour whereas other tortillas are made from corn. Students could share a food from a different country or culture to help broaden the idea that while foods come from basic staples, not all kids bring the same thing in their lunchboxes.

Evaluation

Evaluation of student understanding can be done throughout the lesson during the discussion of the process and through the student's completion of their data sheet. In examining the datasheet, it should be clear that the student is using vocabulary and concepts presented in the story and is able to explain clearly how foods are processed. Finally, using the similar approach to the illustrations in the story *How Did That Get in My Lunchbox?* ask the students to illustrate the stages that their chosen food went through before becoming lunch. Depending on the age of the students, they can include short, written points to help describe the process.



Grades 4–6: Just Where in the World Did My Food Come From?

Purpose: Students will identify where familiar foods are produced.

Procedures

Before beginning this lesson, identify some locally grown crops from your geographic region and some foods that are not locally grown.

Engage/Explore

Begin by asking the students to explain what a market is. Many students will probably mention going to a supermarket where they buy their food. While this is accurate, ask if any students have ever visited a farmers market or open-air market if the topic isn't brought up. If possible, have some pictures of local farmers markets to show them and ask them to describe what they see in the photos. Many photos will show people visiting different stalls and purchasing fresh foods ranging from vegetables to meats to baked goods. Once you have begun to have a discussion with the students, ask them the following guiding question: "So, where do you think the food at markets comes from?" Ask students to generate a list of foods that they might see in a local market as well as foods they don't think they would see in a local market.

Materials

- Pictures of open-air or farmers markets
- Where in the World Did My Food Come From? student data chart (see NSTA Connection)
- Large map of the United States and/or the world
- Small maps for student use

Read the story *To Market, to Market* to the class, stopping at each of the foods presented and allowing the students to generate a chart on the board identifying what the food is (e.g., apples), how the food is harvested or processed (e.g., picking them or turning them into applesauce), and where the food comes from (e.g., orchards). The students can also keep notes on the chart about the food and how it is produced. Organizing data into a chart and creating this graphic organizer as a reference tool is a connection to visual literacy. This will serve as a model example for the students to refer to as they research their own locally grown and imported foods (CC ELA Connection: Reading Standards for Informational Text, K–5: Key Ideas and Details). As you progress through the text, ask the students if they have ever tried the different foods mentioned or if they know from where the foods originate. Key terminology that the students can use in context at this point includes: *market, transport, local, fishery,*



field, farm, dairy, and orchard (CC ELA Connection: Language Standards: Vocabulary Acquisition and Use). Within the text there are also additional terms that relate specifically to the individual processes for making a food such as cheese. These terms may be included and, depending on the students' understanding of where foods originate, you may want the older students to engage in a similar activity to the one mentioned earlier for younger students.

When you are done with the book, ask students to generate a list of foods they think come from local areas (this may need prompting—the list of locally grown foods will be helpful) as well as foods that they know are produced elsewhere (e.g., fresh seafood that is transported to the Midwest and citrus products grown in warm states that is transported to northern states). This list will serve as the beginning list for identifying a food the students want to research to determine (1) where it is grown or produced, and (2) how it gets to the local market, whether the destination is a farmers market or supermarket.

Explain/Elaborate

Allow each student or team of students to pick a food they would like to research. Using the data sheet, ask them to use either library books or the internet to answer the questions about where the food comes from and how it is harvested (CC ELA Connection: Writing Standards for K–5: Research to Build and Present Knowledge). You can also provide a map for the students to use to identify where their food comes from—another connection to visual literacy. Interpreting maps is also a skill that will convey much information to students while allowing

them to draw inferences and conclusions based on the presented information. Students can be guided to use only foods that are produced in the United States or, if using a world map with older students, they can focus on products that come from another country. Once they have investigated the origin of their food choice, they can share their results with the class. To show that our food comes from a variety of areas, you can aggregate the individual student responses into a larger class response by using a large classroom map of the country or world (depending on what foods students were allowed to choose). The different food choices selected by students can be assembled into one larger presentation of where food comes from before it arrives at the local market.

Evaluate

Teachers are able to assess and evaluate students' understanding throughout their research by asking questions such as “Is your food grown locally, or does it need to be transported to our area?” and “Why do you think that food needs to be produced elsewhere and can't be produced or grown in this area?” Additional evaluation occurs as the students present their information about the food choice that can determine if they understand local versus non-local foods, how foods are transported to an area, and the idea that the availability of certain foods depends on the season in which they are grown.

Resources

- Dickman, N. 2010. *Food from farms*. Mankato, MN: Heinemann-Raintree.
- Gibbons, G. 2007. *The vegetables we eat*. New York: Holiday House.

Internet Resources

- AAAS: Where Does Food Come From?
<http://sciencenetlinks.com/lessons/crops-1-where-does-food-come-from/>
- Climate Choices, Children's Voices: Where Does Your Food Come From?
www.climatechoices.org.uk/pages/food1.htm
- University of Illinois Extension: Where Your Food Comes From
<http://urbanext.illinois.edu/food>



Connecting to the Common Core

This section provides information concerning the Common Core for English Language Arts (ELA) and/or mathematics to allow for cross-curricular planning and integration.

English/Language Arts

Reading Standards for Informational Texts K-5: Integration of Knowledge and Ideas

- Grade K standards state “with prompting and support, describe the relationship between the illustrations and the text in which they appear.”
- Grade 1 standards ask students to “use the illustrations and details in a text to describe its key ideas.”
- Grade 3 standards ask students to “use information gained from illustrations and the words in a text to demonstrate understanding of the text.”

Reading Standards for Informational Texts K-5: Key Knowledge and Details

- Grade 1 standards ask students to “ask and answer questions about key details in the text.”
- Grade 4 standard asks students to “refer to details and examples in a text when explaining what the text says explicitly and when drawing inferences from the text.”

Writing Standards for K-5: Research to Build and Present Knowledge

- Grade 4 standard asks students to “conduct short research projects that build knowledge through investigation of different aspects of a topic.” And in grade 5, they are asked to do this standard using several sources.

Language Standards

- Vocabulary Acquisition and Use is one of the standards for language. This particular standard is across grade levels. “Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on grade [appropriate] reading and content.”

Math: Represent and Interpret Data

- Grade 1 standards ask students to “organize, represent and interpret data with up to three categories; ask and answer questions about the total number of data points, how many in each category...”
- Grade 2 standards ask students to “draw a picture graph and a bar graph to represent a data set with up to four categories.”
- Furthermore the Common Core for ELA provide a standard related to the Range of Text Types for K-5 where it indicates that students in K-5 should apply the reading standards to a wide range of texts to include informational science books.

Common Core Standards Initiative
www.corestandards.org/the-standards

Connecting to the Standards

This article relates to the following National Science Education Standards (NRC 1996):

Content Standards

Grades K-8

Standard F: Science in Personal and Social Perspectives

- Types of resources

National Research Council (NRC). 1996. *National science education standards*. Washington, DC: National Academies Press.

NSTA Connection

Download student data sheets at www.nsta.org/SC1211.

