

FOOD DAY CURRICULUM

2011 Curriculum Guide from Columbia
University's Center for Food and
Environment, Program in Nutrition. Food
Day is celebrated every October



FOOD DAY
OCTOBER 24

School Curriculum

Helping Youth Eat Real

Classroom Lessons to Transform Youth and Their Communities



Center for Food & Environment, Program in Nutrition

TEACHERS COLLEGE COLUMBIA UNIVERSITY

These lessons have been developed for Food Day, 2011, by Pamela Koch, EdD, RD and Isobel Contento, PhD, CDN, Teachers College Columbia University, Program in Nutrition and Center for Food & Environment.



The Food Day Lessons are adapted from the Linking Food and the Environment (LiFE) Curriculum Series, developed by the Center for Food & Environment. LiFE was funded by National Institutes of Health (NIH), National Center for Research Resources (NCRR), Science Education Partnership Awards (SEPA) Program, and is published by the National Gardening Association.

Inspirational Individuals

Additional inspiration for these lessons came from *Food: Where Nutrition, Politics & Culture Meet* by Deborah Katz and Mary Goodwin (developed out of Food Day in the 1970s), *In Defense of Food* by Michael Pollan, and the decades of pioneering work by Joan Gussow including *The Feeding Web* and *This Organic Life: Confessions of a Suburban Homesteader*.

Photo Credits:

Lesson images: Eat Real, Mostly Plants, Be an Advocate: istock, Not Too Much: 123RF, Navigate the Environment: Center for Food & Environment
Whole Food Cards: All from 123RF.

Food Change Cards: All from 123RF, except Brown Rice which is from istock.

Plants We Eat: From Growing Food, Linking Food and the Environment Curriculum Series. Reprinted with permission from Teachers College Columbia University, Center for Food & Environment.

Fat and Sugar Cards: Small Classic Coke Bottle and Peanut Butter Cups: 123RF, Coke Can, 20-ounce bottle and Lay's Potato Chips: Center for Food & Environment.

Food Environment Cards: Farmers' Market and Supermarket Produce Section: 123RF, Fast Food: Jorge Bach/CSPI, Supermarket Aerial View: original by lyzadanger. Edit by Diliff.



Dear Food Day Educator,

Food Day is a nationwide celebration of healthy, affordable, and sustainably produced food as well as a grassroots campaign for better food policies. Every year on October 24, events and activities take place in schools, on university campuses, in restaurants and businesses, and elsewhere, to raise awareness and mobilize around food issues. The effort is spearheaded by the nonprofit Center for Science in the Public Interest (www.cspinet.org). We encourage you to use these lessons to celebrate Food Day in your classroom on any day of the year, but please visit www.foodday.org to register your participation on our national map if you use them in October! You will also find supplemental materials for school activities, including a Guide for Food Day Activities in Schools with more ideas and sample activities, at www.foodday.org/participate/resources.

Teaching these lessons, we believe, will be a rewarding experience for you and your students. Your students will be motivated to follow the Food Day Eating Goals of “Eat Real,” “Mostly Plants,” and “Not Too Much.” Your students will learn how to navigate through the food environment to find real food. And, you and your students will work together to become advocates who change the food environment and make it easier for everyone in your community to follow the Food Day Eating Goals.

We encourage you to teach these five lessons during the week of October 24, or to make them fit into your curriculum sometime around that time. Imagine the impact we could have if schools across the country taught these lessons at the same time!

If you have any questions or comments about these lessons please contact the staff at Food Day’s national office at foodday@cspinet.org or 202-777-8392. You may also contact the creators of these lessons, Pamela Koch and Isobel Contento from Teachers College Columbia University, at pak14@tc.columbia.edu or 212-678-3001.

Much luck and thanks!

The Food Day Team
Center for Science in the Public Interest
1220 L St. NW, Suite 300, Washington, DC 20005
www.foodday.org



Table of Contents

Overview of the Food Day Lessons.....	5
How to Use this Guide.....	6
Connecting the Food Day Lessons to the Standards	7



Lesson 1: Eat Real	8
<i>Getting Started</i>	<i>9</i>
<i>Core Activity</i>	<i>10</i>
<i>Digging Deeper</i>	<i>11</i>
<i>Whole Food Photographs cards (teacher resource).....</i>	<i>12</i>
<i>Food Change cards (teacher resource)</i>	<i>17</i>
<i>Eat Real Action Plan (student activity sheet)</i>	<i>29</i>



Lesson 2: Mostly Plants	30
<i>Getting Started</i>	<i>31</i>
<i>Core Activity</i>	<i>32</i>
<i>Digging Deeper</i>	<i>33</i>
<i>Plants We Eat cards (teacher resource).....</i>	<i>34</i>
<i>MyPlate (student activity sheet)</i>	<i>41</i>
<i>Choose MyPlate (student activity sheet)</i>	<i>42</i>



Lesson 3: Not Too Much	43
<i>Getting Started</i>	<i>44</i>
<i>Core Activity</i>	<i>45</i>
<i>Digging Deeper</i>	<i>46</i>
<i>Fat and Sugar in Food and Drinks experiment sheet (teacher resource).....</i>	<i>47</i>
<i>Play dough recipe (teacher resource)</i>	<i>48</i>
<i>Fat and Sugar cards (teacher resource)</i>	<i>49</i>
<i>Overly Processed Foods cards (teacher resource).....</i>	<i>51</i>
<i>Small-Size-It Action Plan (student activity sheet).....</i>	<i>52</i>



Lesson 4: Navigate the Environment.....	53
<i>Getting Started</i>	<i>54</i>
<i>Core Activity</i>	<i>55</i>
<i>Digging Deeper</i>	<i>56</i>
<i>Food Environment (cards).....</i>	<i>57</i>
<i>Seeking Out Real Food Action Plan (student activity sheet).....</i>	<i>59</i>



Lesson 5: Be an Advocate	60
<i>Getting Started</i>	<i>61</i>
<i>Core Activity</i>	<i>62</i>
<i>Digging Deeper</i>	<i>63</i>
<i>Advocacy Project Ideas (teacher resource)</i>	<i>64</i>
<i>Food Environment Advocacy Project (student activity sheet)</i>	<i>65</i>
<i>Pledging to the Food Day Eating Goals (student activity sheet).....</i>	<i>66</i>

Appendix A: Adapting the Food Day Curriculum for Early Elementary Grades	67
--	----

Appendix B: Adapting the Food Day Curriculum for High Schools.....	78
--	----

Overview of the Food Day Lessons



Lesson 1: Eat Real

Eating real food is eating whole foods that come straight from plants or animals. These foods are filled with the nutrients that our bodies need to do our best at everything we want to do and help us stay healthy long into the future. Foods that are processed, especially those that are overly processed, are stripped of nutrients. Additionally the processing, packaging, transporting, and marketing of food uses excessive energy and is harmful to the natural environment. At the end of this lesson, students create an action plan to be on their way to eating real.



Lesson 2: Mostly Plants

When we eat plants, we get not only essential vitamins, minerals, protein, and dietary fiber, but also thousands of phytonutrients that may help our bodies be their healthiest now and protect us from diseases later. We eat all different parts of plants: roots, stems, leaves, flowers, fruits, and seeds. Animal foods are important too, as sources of protein, vitamins and minerals, but they are also often high in saturated fat and cholesterol so we should eat small portions. Students learn to use MyPlate so they can make sure at least three-quarters of their meals are plants.



Lesson 3: Not Too Much

In addition to the goals of “Eat Real” and “Mostly Plants,” today’s food environment demands that we also make a conscious effort not to eat too much, especially of overly processed foods with little or no nutrients and high amounts of added fat, sugar, and salt. Indeed, many of the typical portions of sweetened beverages and snack foods contain a day’s worth of fat and/or sugar. When we are aware of this, we can make a conscious effort to have whole foods instead of overly processed foods and to small-size-it when we do have overly processed foods.



Lesson 4: Navigate the Environment

The food environment is everything including corner stores, advertisements on television, gardens in our neighborhoods, fast food places that dot the countryside, to fruit stands. The food environment strongly influences what we eat, despite our best efforts to make healthful choices. When we become aware of choices that meet the Food Day Eating Goals of “Eat Real,” “Mostly Plants,” and “Not Too Much,” we can seek these options out and navigate our way to better health as a first step to having today’s children live long, healthful, and productive lives.



Lesson 5: Be an Advocate

The best way to get us all following the Food Day Eating Goals is to create an environment where real, plant-based foods are the norm and easy to find. We can do this by having more farmers’ markets, fruit stands, gardens, farms, and restaurants that serve whole, locally sourced foods, and families cooking and eating together. Additionally, we want to create an environment where overly processed foods come in small sizes and are not so prevalent. In this lesson, classes create a project to become advocates who change the food environment in their community.

How to Use This Guide

Lesson Plans

Getting Started

Each lesson begins with a Getting Started page. On this page there is a detailed **Overview** of the lesson. The **Behavior Change Objective** is the specific food behavior we want the students to change as a result of the lesson. The **Learning Objectives** are brief, clear statements of what the students will be able to perform by the end of the lesson in order to achieve the Behavior Change Objective. Finally, the **Background for Teachers** provides the background context for why the lesson is important. This section is designed to motivate you and get you excited to teach the lessons. Also, sometimes this section might be a bit shocking and get you angry enough to want to change the system and forge the way to our country eating real.



Core Activities

This page contains the **Aim**, which is a one-sentence overview of the main point of the lesson. You can share the aim with your students as appropriate. All the **Materials** needed for the lesson are listed. Any materials that are in **bold-italic** are provided in this guide. **Before You Begin** details what you will need to do before you teach this lesson to your class. The **Procedure** provides step-by-step instructions for teaching the lesson. The blue text after each procedure number gives you the big idea and the text below provides the details. Be creative and enhance the lessons to make them work for your class.



Digging Deeper

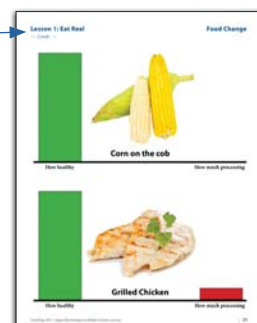
This lesson will give you enough to whet your appetite and get you ready for more exploration, discussion and activities about “Eat Real,” “Mostly Plants,” “Not Too Much,” “Navigate the Environment,” and “Be an Advocate.” Use the **Activities and Resources to Extend This Lesson** to be inspired by what others have done and to get resources and ideas for additional activities and projects.



Lesson Resources

Cards, Experiment Sheets, and Other Resources for Teachers

As appropriate, the lessons have cards, experiment sheets, and other resources that will help maximize your ability to effectively teach these lessons.



Activity Sheets for Students

Every lesson contains activity sheets, enabling students to create an action plan that will help them meet the Behavior Change Objective.



Slides of the visuals for key activities in the lessons along with additional supplemental materials are available at www.foodday.org/participate/resources.

Connecting the Food Day Lessons to the Common Core State Standards

As you are probably aware, our nation now has the Common Core State Standards for literacy and mathematics:

The Common Core State Standards ...are designed to be robust and relevant to the real world, reflecting the knowledge and skills that our young people need for success in college and careers. With American students fully prepared for the future, our communities will be best positioned to compete successfully in the global economy.

The Food Day lessons embrace the idea of preparing young people to be ready for the real world. And, part of the world they are inheriting is a world with a food system that is threatening both our personal health and the health of the natural environment. We hope these lessons inspire you to use food and our current food system as a topic throughout your curriculum.

The Food Day lessons can specifically help you meet the below standards in English Language Arts & Literacy in History/Social Studies, Science, and Technical Subjects:

College and Career Readiness Anchor Standards for Reading

Integration of Knowledge and Ideas

Standard 7: Integrate and evaluate content presented in diverse media and formats, including visually and quantitatively, as well as in words.

Use the visuals and experiments you are presenting in Lesson 1–3 as a way for students to evaluate content, and find ways to incorporate these experiences into what the students are reading and writing.

Standard 8: Delineate and evaluate the argument and specific claims in a text, including the validity of the reasoning as well as the relevance and sufficiency of the evidence.

Have these students analyze what they are learning so they can articulate the quality of the evidence. You may also have the students find different sources of information about food and compare and contrast the evidence from these various sources.

College and Career Readiness Anchor Standards for Writing

Research to Build and Present Knowledge

Standard 7: Conduct short as well as more sustained research projects based on focused questions, demonstrating understanding of the subject under investigation.

The projects the students create in Lesson 5 are perfectly suited to be a sustained project. Be sure the students develop clear, measurable questions for their projects and conduct observations and collect data to understand the nature and impact of the projects.

Standard 8: Gather relevant information from multiple print and digital sources, assess the credibility and accuracy of each source, and integrate the information while avoiding plagiarism.

Use the Food Day lessons as a starting point and have students gather information on any of the Food Day lesson topics. They can assess the credibility of each source and create their own writings or projects to teach others what they learned.

Connecting the Food Day Lessons to Science Education Standards

These lessons also touch upon some of the Benchmarks for Science Literacy by the American Association for the Advancement of Science (AAAS), Project 2061, specifically in the areas of “designed world,” and “living environment.” These lessons also touch on the National Science Education Standards (National Research Council) in the areas of “science in personal and social perspectives,” “science as inquiry,” and “science and technology.”

Lesson 1:

Eat Real



Lesson 1: Eat Real

— Getting Started —

Overview

In this lesson, students learn why eating real, that is eating whole foods from plants and animals — fruits, vegetables, whole grains, legumes, lean meats, poultry, fish and low fat dairy products — is so important. They are packed with the nutrients our bodies need. They keep us going today, and help us stay healthy long into the future. Food tastings with fresh, locally produced fruits and vegetables are recommended for students to experience wholesome eating. Students then contrast whole foods with overly processed foods, such as sweetened beverages, chips, and candy. These foods lack essential nutrients and are loaded with fat, salt, and sugar. The lesson ends with students making an **Eat Real Action Plan** to replace overly processed foods with whole foods. Possible action plans are: replace a bag of chips with a piece of fruit; replace soda with an ice cold glass of tap water adorned with lemon, orange, or cucumber slices; have a salad with lunch and skip the popsicle.

Behavior Change Objective

As a result of this lesson, students will eat more whole foods from plants and animals and fewer overly processed foods.

Learning Objectives

Students will be able to:

- explain what it means to “Eat Real;”
- describe the health and ecological benefits of eating more whole foods and fewer overly processed foods;
- list foods that are whole, foods that are minimally processed (changed a little), and foods that are overly processed (changed a lot);
- create a personal action plan to eat a whole food instead of a processed food.

Background for Teachers

The foods we enjoy should promote, not undermine, our good health. Several hundred thousand Americans die prematurely every year due to what we eat, with medical costs running well over \$100 billion. A healthy diet, especially one that follows the goals of “Eat Real,” “Mostly Plants,” and “Not Too Much” as is promoted in these lessons, can lower blood pressure, cholesterol levels, blood sugar, and prevent everything from tooth decay and obesity to heart disease, stroke, diabetes, and cancer. By teaching these lessons, you are playing a role in helping your students reach their fullest potential now, as well as maintaining their health in the future.

Although many nutrition lessons consist of students learning about food groups and how to sort foods into these groups, this typically does not translate into healthful eating behaviors. The Food Day curriculum takes the stance that to effectively change what students eat, we need to focus on specific, clear behaviors. During the activities in the Food Day lessons, students will become motivated to follow the Food Day Eating Goals and learn practical skills for making positive changes to their diet.

This lesson is about eating real. That means eating more whole foods — foods that come right from plants and animals. Students see beautiful, enticing photographs of real foods so they know what eating real means and feel good about eating real. They then see how foods can be changed or processed into other things. Sometimes some processing is useful, such as grinding wheat berries to make whole-wheat flour — but far too many of the foods available around us are overly processed and are dramatically changed to something unrecognizable from their plant and/or animal origins. Over-processing removes nutrients and adds excessive sugar, fat, and salt. In all the Food Day lessons, students take what they learn out of the classroom door by creating action plans. Actively making changes now can help them build positive habits for the future. In this lesson, the action plan is to eat a whole food instead of an overly processed food, getting them on the path to “Eat Real.”

Lesson 1: Eat Real

— Core Activity —



Aim

To gain an appreciation for **why** to eat more whole foods and fewer processed foods and create a specific action plan for positive change.

Materials

- **Whole Food Photographs** cards
- (optional) whole foods
- **Food Change** cards
- **Eat Real Action Plan** activity sheet

Before You Begin

- Print and display the **Whole Food Photographs** cards. If you brought in whole foods display them as well.
- Print the **Food Change** cards and be sure you have enough space on the board to hang the 15 cards. There are 5 foods (orange, corn, chicken, rice, milk) and 3 versions of each food (whole, minimally processed, highly processed).
- Print and make copies of the **Eat Real Action Plan** activity sheet for each student.

Procedure

1. Introduce Eating Real

Bring to the students' attention the **Whole Food Photographs** cards (and whole foods if you have them) displayed around the classroom. Ask the students to look at the photographs, to think about what these foods have in common with each other, and to share any thoughts they have about the photographs (and foods). Accept all answers. Explain that these are what are called "whole foods" — they are in their original forms, the way they come from plants and animals. This lesson is called "Eat Real" and when we eat real, we are eating foods that are right from nature, or close to how they come from nature. Ask the students what types of foods are missing from the photographs (they might mention foods such as chips, candy, and soda). Explain that some foods are processed foods. Although processed foods start out with ingredients from plants and animals, they are changed, sometimes a little and sometimes a lot, from how nature made them. If you brought in whole foods, have a food tasting with them during the lesson.

2. Discuss Why-to Eat Real

Explain that when we eat whole foods we get all the nutrients that come from nature as nature intended. Eating whole foods helps us be our best at everything we do today and keeps us healthy long into the future. When we "Eat Real," we are taking care of our bodies and maintaining our health. Eating real is also good for the earth. Foods that are whole, or close to whole, use less energy because they are not extensively processed and often have no or minimal packaging.

3. Contrast Whole and Processed Foods

Take out the **Food Change** cards. These cards take five whole foods and show what happens to them when they are processed. Hang up the five cards marked as "whole." Ask them to look at the "how healthy" bars (green) and the "how much processing" bars (red). Have them note that the green bars are all high and the red bars are all low. Use page 18 to guide the discussion on these foods with students: we explain why whole foods are good for us and for the earth.

Add the foods labeled "changed a little." Place these cards next to the cards with the same base food (for example put the orange juice next to the orange). Ask the students to share how these foods have changed, such as the corn was removed from the cob and put in the can, the chicken was fried in oil, and the yogurt had cultures added. Have the students look at the "how nutritious" and "how much processing" bars. The nutrient bars went down because some of the nutrients have been removed and fat, salt and/or sugar was added. The red bars consequently went up. Use page 19 to guide the discussion on why processing foods makes them less healthy for us and for the earth.

Add the foods labeled "changed a lot." The students may recognize these foods (and like these foods). Explain that, highly — or overly — processed foods are often also heavily marketed and typically have large quantities of added sugar, fat, and salt. Although these overly processed foods are designed to taste good, they are not good for long-term health and the energy used to create these foods is not good for the environment. Use page 20 to guide the discussion on why overly processed foods are not good for us or for the earth.

4. Create Eat Real Action Plans

Hand out the **Eat Real Action Plan** activity sheets. In the Food Day lessons, students not only learn why healthful eating is so important, they also make action plans that help them build their confidence and ability to make choices that are good for them and good for the earth. They start with making an action plan to replace an overly processed food with a whole food instead. As the students work through this sheet, make sure their action plan is specific and clear so they will know if they are successful at achieving their plan. Have several students share their plans. Help students make these plans specific, if they are not.

Lesson 1: Eat Real

— Digging Deeper —

Activities and Resources to Extend this Lesson

Watch What's On Your Plate

<http://www.whatsonyourplateproject.org/>

What's On Your Plate? is a witty and provocative documentary produced and directed by award-winning Catherine Gund about kids and food politics. Filmed over the course of one year, the film follows two eleven-year-old, multi-racial, city kids as they explore their place in the food chain.

Watch and Learn with Nourish

<http://www.nourishlife.org/>

Nourish is an educational initiative designed to open a meaningful conversation about food and sustainability, particularly in schools and communities. Be sure to check out the Nourish curriculum.

Watch FRESH

<http://www.freshthemovie.com/>

FRESH is more than a movie, it's a gateway to action. Its aim is to help grow FRESH foods, ideas, and become active participants in an exciting, vibrant, and fast-growing movement.

Visit a Farmers' Market

<http://apps.ams.usda.gov/FarmersMarkets/>

Taking a class trip to a farmers' market can provide an opportunity for your students to use all their senses as they experience eating real, eating seasonally, and learning about the different growing methods that farmers use. The USDA link above can help you locate a market in your area.

Study Food from Different Times and Places

A great way to connect real food to the curriculum is to incorporate agriculture, food production, and eating practices into social studies. You and your students will explore and learn by studying the food culture of any time and place.

Encourage Families to Cook with The Kids Cook Monday

<http://www.thekidscookmonday.org/>

You might try cooking in your classroom and/or encouraging your students to cook at home with their families. Try The Kids Cook Monday website, where there are new recipes every Monday along with motivational tips to start the week with families spending time cooking and eating together. Remind the students to have their families look at the website on Monday and start the day on Tuesday by asking students to share what they cooked at home.

Book FoodPlay

<http://www.foodplay.com/>

Emmy Award-winning FoodPlay tours the nation's schools and special events using the power of live theater, amazing feats of juggling, music, magic, and audience participation to improve the nutrition and health habits of our country's youth. Bring their fun-filled theater shows and curriculum-based resources to your community, and watch kids take charge of growing up healthy and fit!

Get Involved with Slow Food In Schools

http://www.slowfoodusa.org/index.php/programs/details/in_schools/

Slow Food in Schools is a network of community-based youth food education projects. Ranging from schoolyard gardens, to cooking classes, to farm-to-school initiatives, Slow Food in Schools projects are diverse yet all offer children hands-on opportunities to explore where their food comes from.

Explore the Resources Available from Acorn Naturalist

<http://www.acornnaturalists.com/store/index.aspx>

For over 20 years, Acorn Naturalists has offered resources that advance science education and promote environmental literacy.



apples



grapes



peppers



fat free milk



mixed vegetables



beans



chicken



fish



whole wheat bread



brown rice

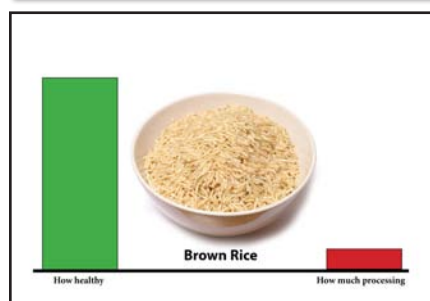
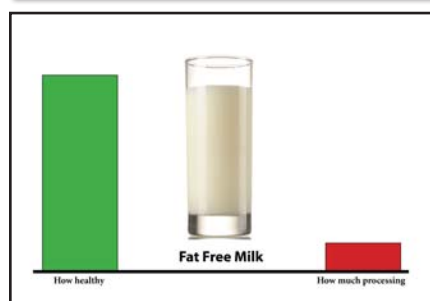
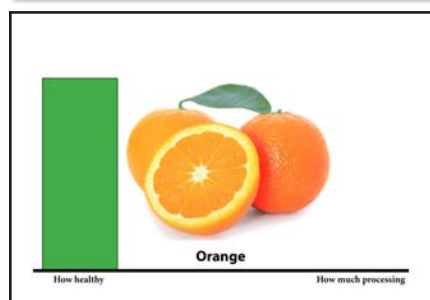
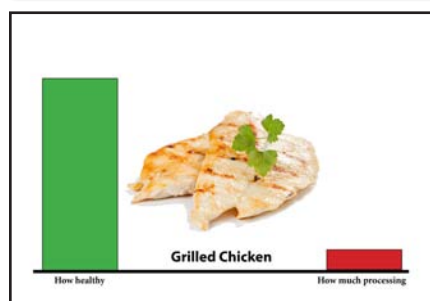
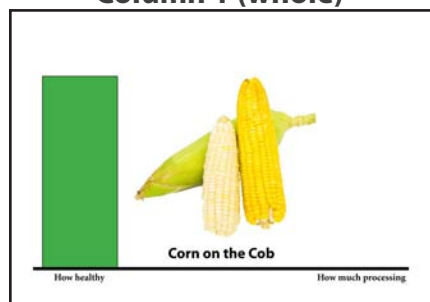
Lesson 1: Eat Real

Food Change

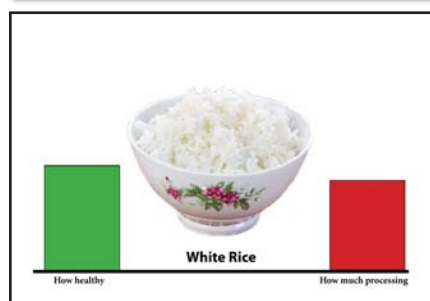
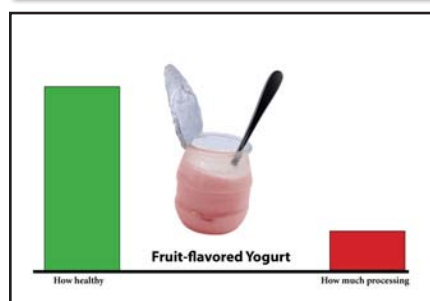
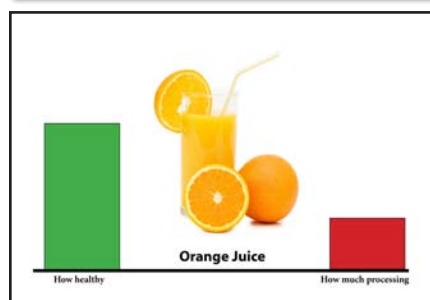
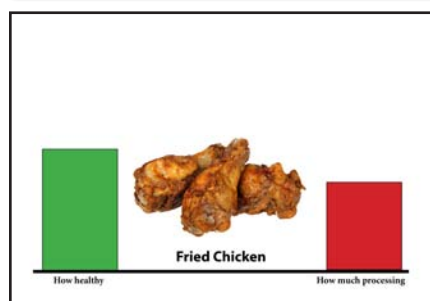
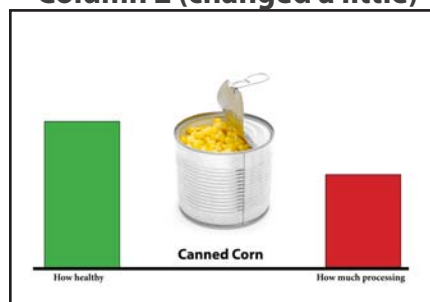
— Cards —

This activity will help your students understand why eating real is good for our bodies and good for the earth. Each card has a green bar that represents “how healthy” the food is and a red bar that shows “how much processing” is involved in producing the food. First, hang and discuss the cards in Column 1. Use cards on pages 21–23 and discuss information on page 18. Next, hang and discuss the cards in Column 2 (changed a little). Use cards on pages 23–25 and discuss the information on page 19. Finally, hang and discuss the cards in Column 3 (changed a lot). Use cards on pages 26–28 and discuss the information on page 20.

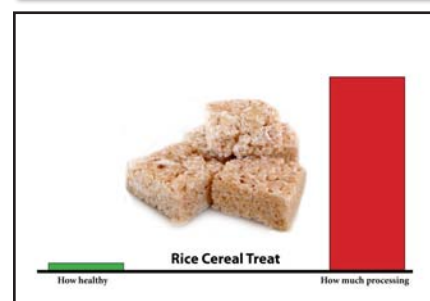
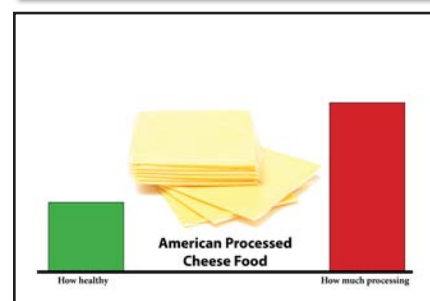
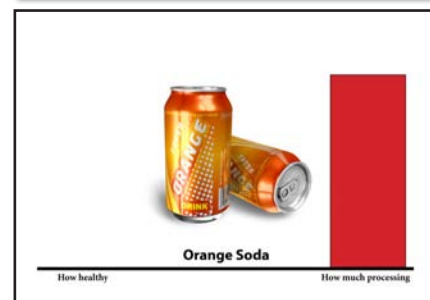
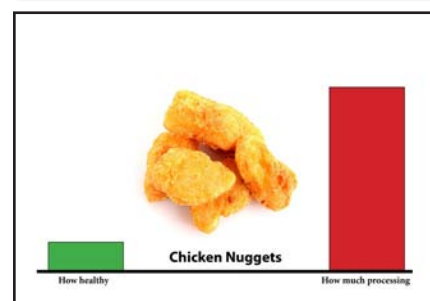
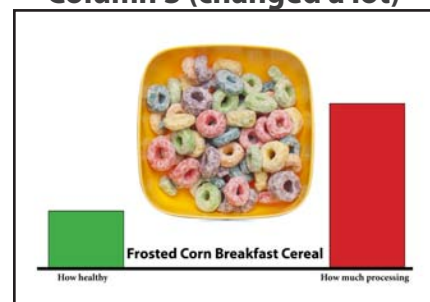
Column 1 (whole)



Column 2 (changed a little)



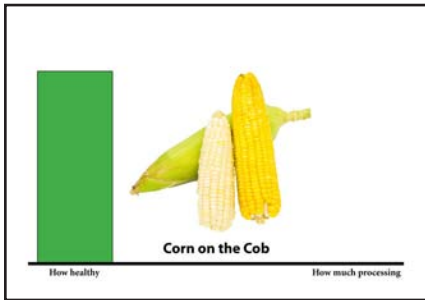
Column 3 (changed a lot)



— Cards —

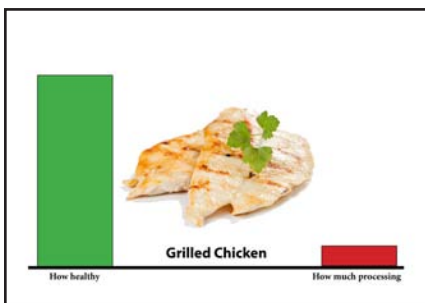
The foods in column 1 are whole, real foods that promote health to both our bodies and the earth (all have high green bars and low or no red bars). Additionally, when we have whole foods that are grown or raised close to where we live and are from farms that use organic and/or sustainable growing methods, we can further increase the healthfulness while decreasing the carbon footprint — a measure of carbon dioxide emissions due to human activity — from these foods.

Column 1 (whole)



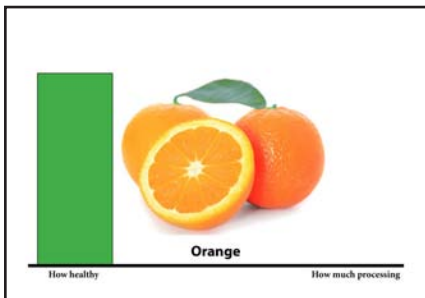
Corn on the cob is a real, whole food that remains just as it was after it was grown and harvested.

- Corn is good for our health because it contains nutrients such as fiber, potassium, and vitamin A, as well as complex carbohydrates. Of course, slathering the corn with butter and salt greatly reduces the nutritional quality.
- Corn on the cob is good for the environment because there is no packaging, no energy used for processing. All we do is shuck it and cook it.



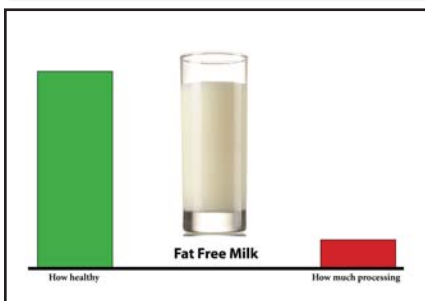
Grilled chicken comes right from a chicken, with only the skin and bones removed.

- Grilled chicken is good for our health because it is high in protein and iron, and low in fat. It also has some potassium and phosphorus.
- Grilled chicken is good for the environment because it is minimally processed and when the chickens are raised on farms that are organic and/or sustainable (where chickens have healthy foods and plenty of space to move around and are not given large doses of hormones or medicines) that makes them even better for the environment.



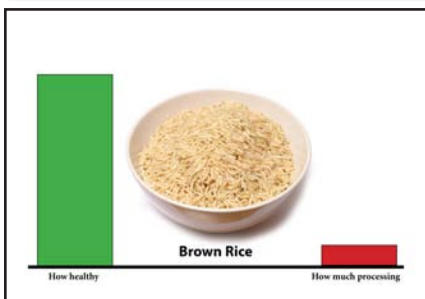
Oranges are eaten just as they are picked from the tree.

- Oranges are good for our health because they are full of many vitamins, minerals, and other health-enhancing substances, most notably vitamin C, potassium, and antioxidants.
- Oranges are good for the environment because they are not processed. All we have to do is peel and eat.



Fat free milk comes to us straight from dairy farms with minimal processing.

- Fat free milk is good for our health because it is chock full of calcium, protein, and other nutrients, including vitamins A and D that are added. The fat is also skimmed off.
- Fat free milk is good for the environment because it is minimally processed: it is only homogenized to mix in the fat and pasteurized to kill microorganisms. We can also help the environment by choosing milk that is grown on organic and/or sustainable farms, where the cows graze on grass, live outside, and are not given hormones or excessive medicine.



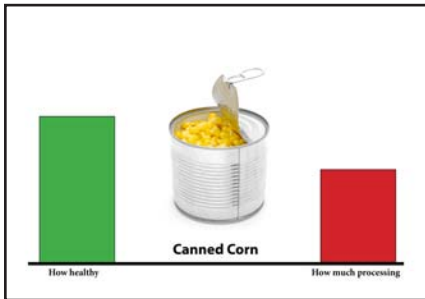
Brown rice is a whole grain with only the outer husk removed.

- Brown rice is good for our health because it is high in fiber, protein, B vitamins, and phytonutrients that can reduce the risk of chronic diseases, such as cancer and type 2 diabetes.
- Brown rice is good for the environment because it is minimally processed. When organically grown, it is even better for the environment.

— Cards —

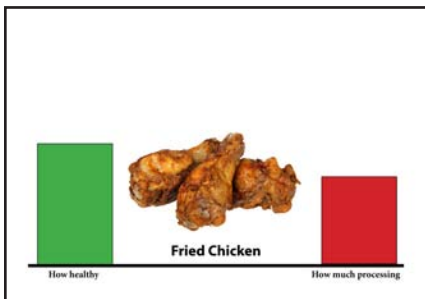
The foods in column 2 are minimally processed, that is, foods that have been “changed a little.” Many of them have fat, sugar, and/or salt added to them. Some of the nutrients are removed during processing. These foods are less health-promoting than whole foods. Also, because of the energy and resources used during the processing and packaging for these foods, they have a larger carbon footprint than whole foods. You will notice that the green bars are often lower and red bars are higher than for whole foods.

Column 2 (changed a little)



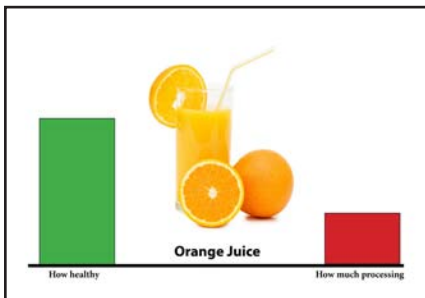
Canned corn has been removed from the cob and put into a can.

- Canned corn is not as good for our health as corn on the cob if salt has been added.
- Canned corn is more processed than fresh corn. Energy and resources are used both to produce the can and in the factory, where the kernels are mechanically removed from the cob and put into the can.



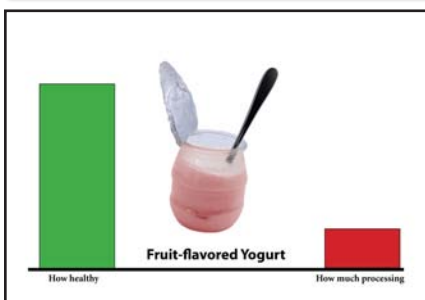
Fried chicken has been breaded and fried in oil.

- Fried chicken is not as good for our health because fat has been added when it is fried. There is more fat (and more calories) in the breading and oil than in the chicken itself.
- Fried chicken is more processed than grilled chicken. Vegetable oil used to fry chicken comes from the processing of seeds, such as soy, corn, sunflower, and rapeseed (canola). The processing of oil uses energy and resources, increasing the carbon footprint.



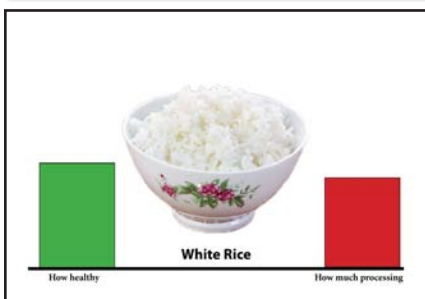
Orange juice is made by squeezing the juice out of oranges.

- Orange juice is not as healthy as whole oranges since the fiber is removed when the oranges are squeezed. In addition, the greater bulk of a whole orange is more filling and should help reduce the intake of calories.
- Orange juice is more processed than whole oranges. Energy and resources are used both to produce the carton the orange juice is in and in the factory that squeezes many oranges to make orange juice.



Fruit-flavored yogurt is made by culturing milk and adding sugar and flavoring to yogurt.

- Fruit-flavored yogurt is not as healthy as milk because sugar is usually added to the yogurt. It will be healthier to buy or make plain yogurt and add sliced or crushed fruit.
- Fruit-flavored yogurt is not as good for the environment because of the energy and resources used to produce all the small packages used for yogurt. Also, the processing to add sugar and mix the yogurt uses resources and energy.



White rice has had the germ removed.

- White rice is not as healthy as brown rice because the fiber in the bran layer and the nutrients that reside in the germ have been removed in the refining process.
- White rice has just a little larger carbon footprint than brown rice because of the energy and resources used to remove the germ.

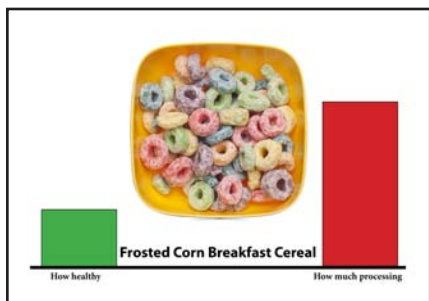
Lesson 1: Eat Real

Food Change

— Cards —

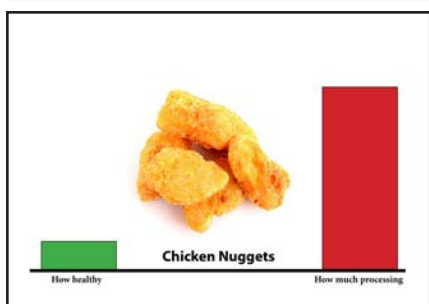
The foods in column 3 are overly processed, that is, they have been “changed a lot.” They have excessive fat, sugar, and/or salt added to them and many or all of the nutrients are removed during processing. These are nutritionally bankrupt foods that also have large carbon footprints. You will notice that the green bars are usually low and the red bars are high. When we realize that these foods can compromise both our own health and the health of the earth, we realize how important it is to “Eat Real.”

Column 3 (changed a lot)



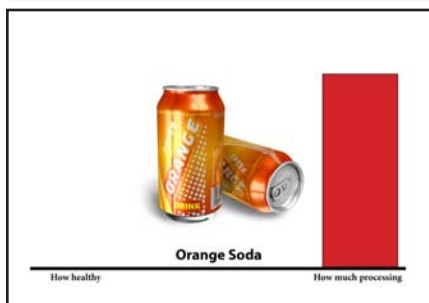
Frosted corn breakfast cereal is made from mixing cornmeal, other refined grains, sugar, and additives.

- Corn breakfast cereal is not healthy for our body because of the large amounts of sugar that are added to the corn flour, as well as food dyes and other additives. It is also low in fiber.
- Corn breakfast cereal has a much larger carbon footprint because of the energy and resources used to make the cereal and to create the box and plastic liner used to package the cereal.



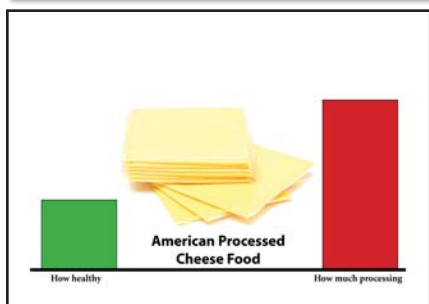
Chicken nuggets are molded pieces of chicken that are breaded and then usually fried in oil.

- Chicken nuggets are not so healthy for our body. The breading and oil used to fry them add extra calories and fat.
- Chicken nuggets have a large carbon footprint due to the energy and resources used to process the chicken into fried nuggets. Also, if the chicken nuggets are frozen for long periods this also uses significant energy and resources.



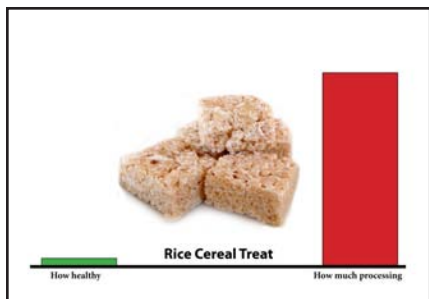
Orange soda is carbonated water with sugar, flavorings, and coloring added.

- Orange soda and other sweetened beverages are liquid candy. They are not healthy for our bodies because they have sugar, acids, sometimes caffeine, and artificial flavorings (usually caramel coloring or synthetic dyes) and none of the essential nutrients our body needs.
- Soda has a large carbon footprint due to all the energy and resources used to produce the sweeteners in non-diet soda, along with energy and resources used to make the cans and bottles. Resources are also used to chill soda. All this for a product that can lead to excessive energy intake and increased risk of obesity and chronic diseases.



American processed cheese food is so excessively processed that it has to be called cheese food instead of just cheese.

- American processed cheese food is high in saturated fat and salt.
- American processed cheese food has a large carbon footprint due to the energy and resources used during processing as well as the excessive energy and resources used to individually wrap each slice of cheese.



Rice cereal treat starts with processed rice cereal and adds fat and sugar.

- Rice cereal treat is not so healthy for our bodies because it has lost many of the nutrients in rice and gained a lot of added fat and sugar. It is also low in fiber.
- Rice cereal treat has a large carbon footprint due to the processing of the rice and the procedure used to make the sweetener and fat that are added. Resources are also used for the packaging.



Corn on the Cob

How healthy

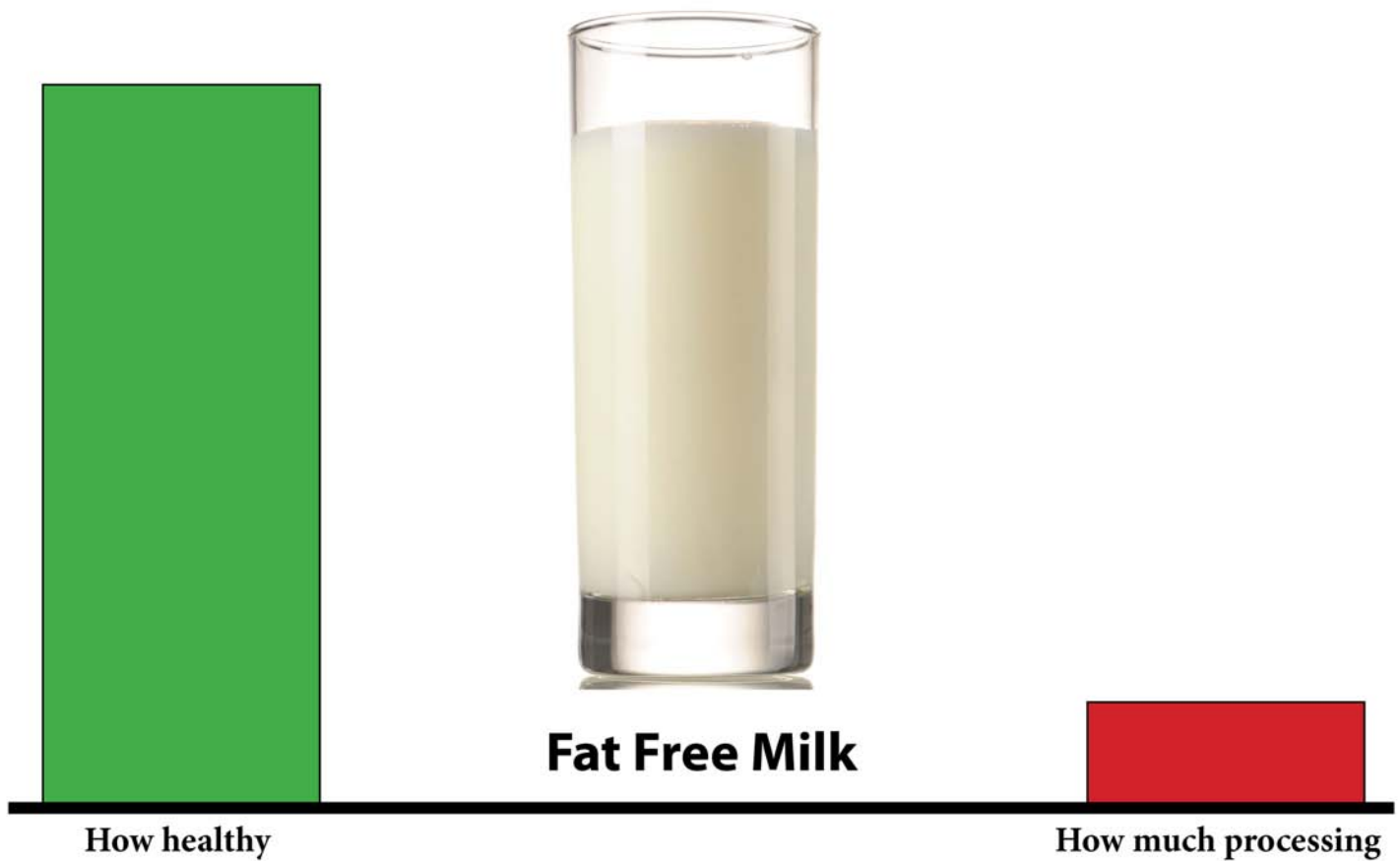
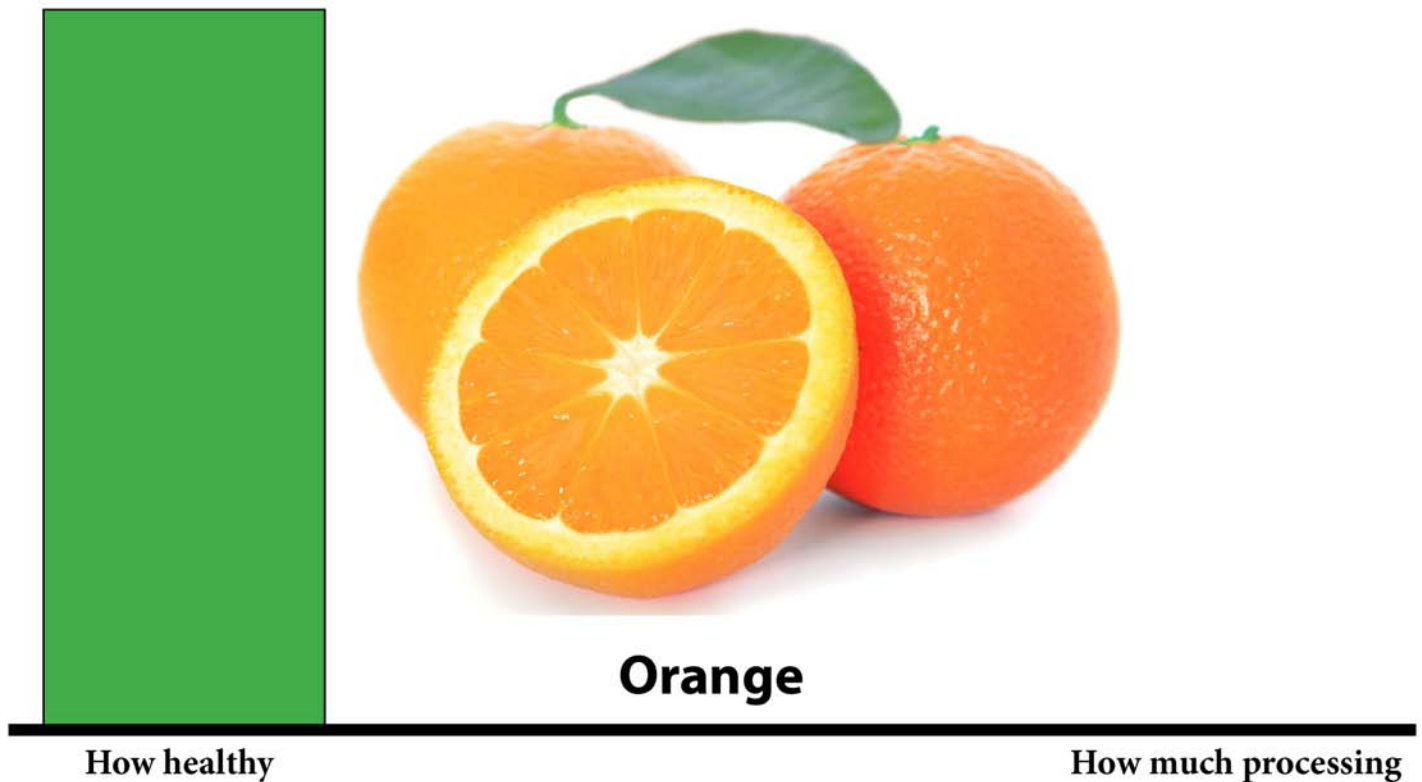
How much processing

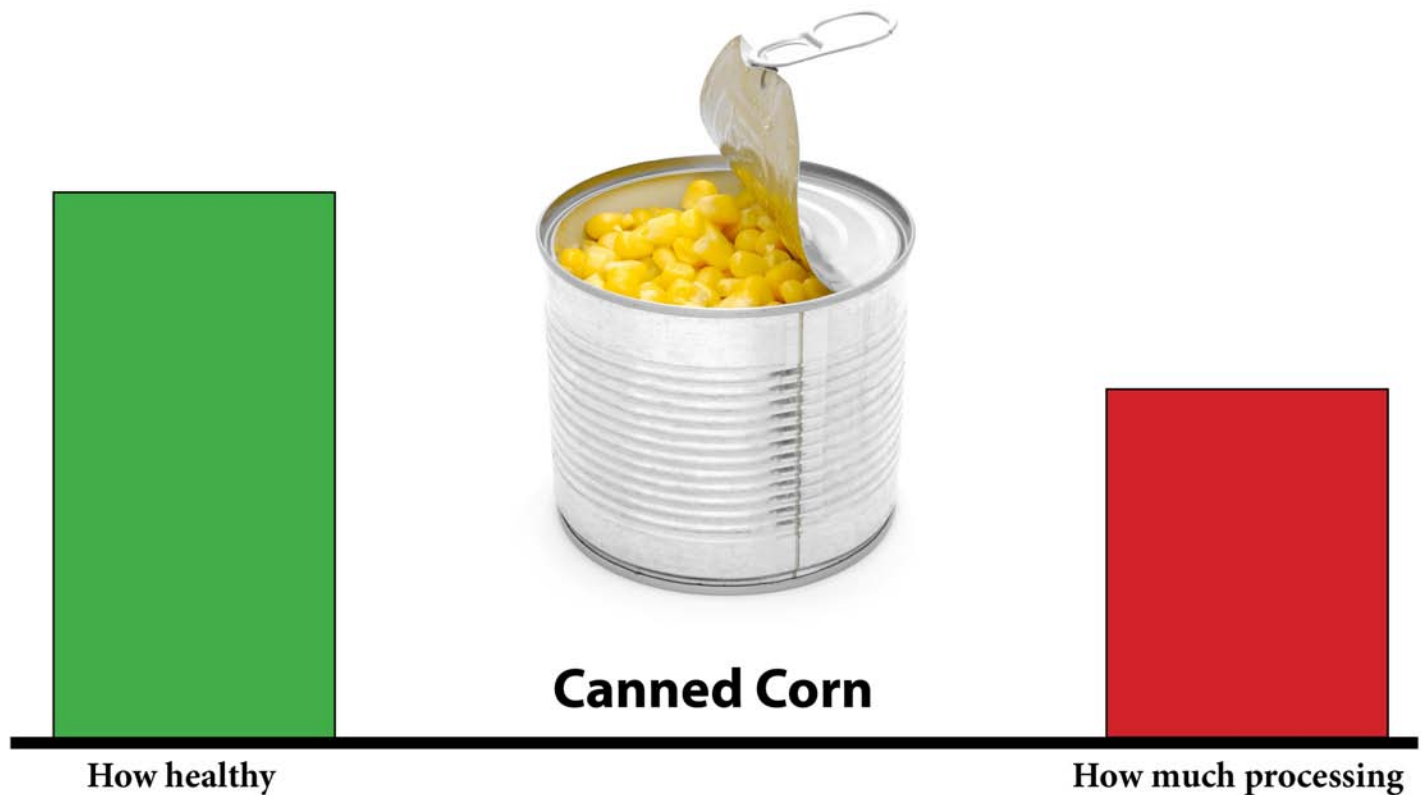


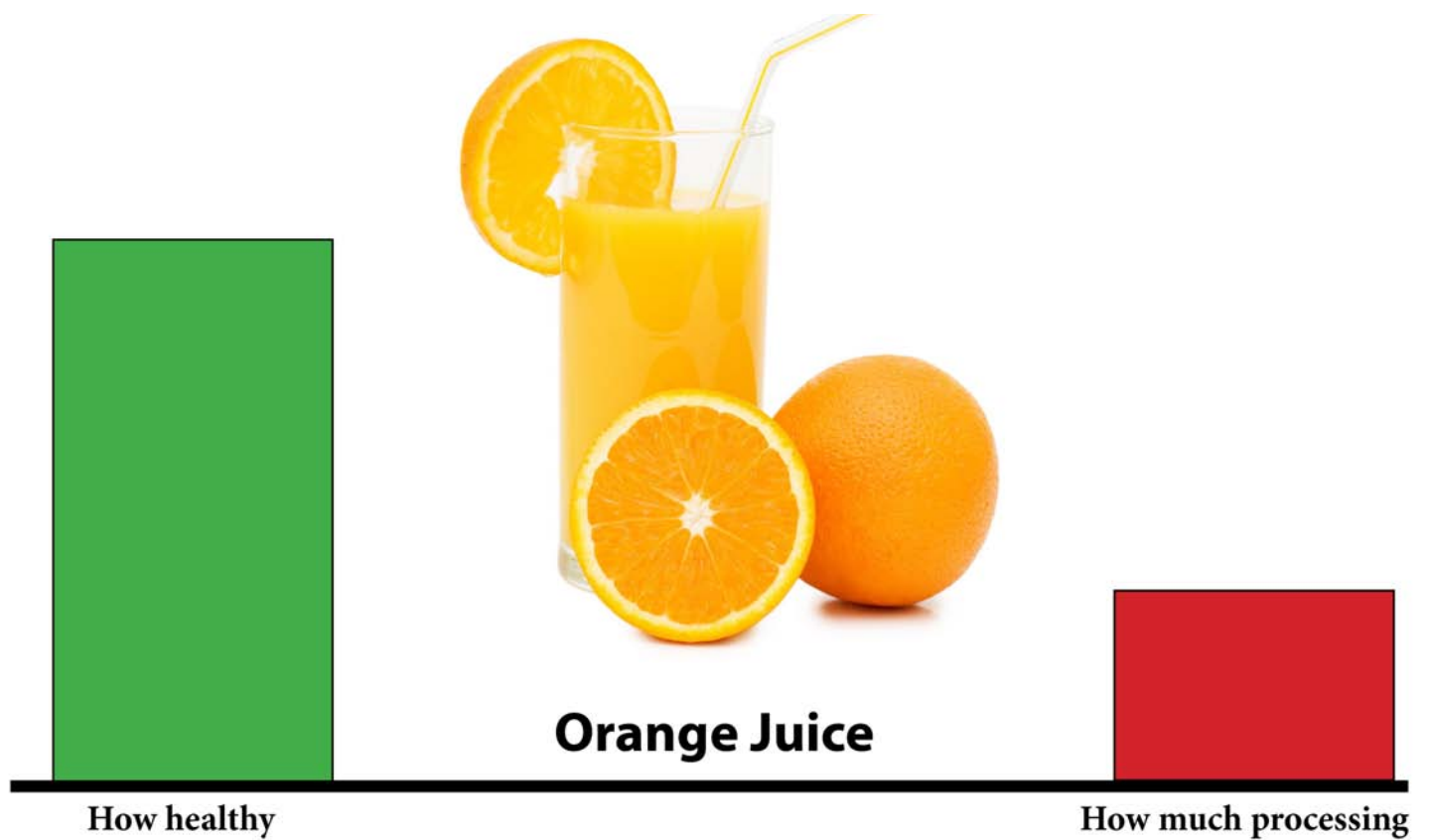
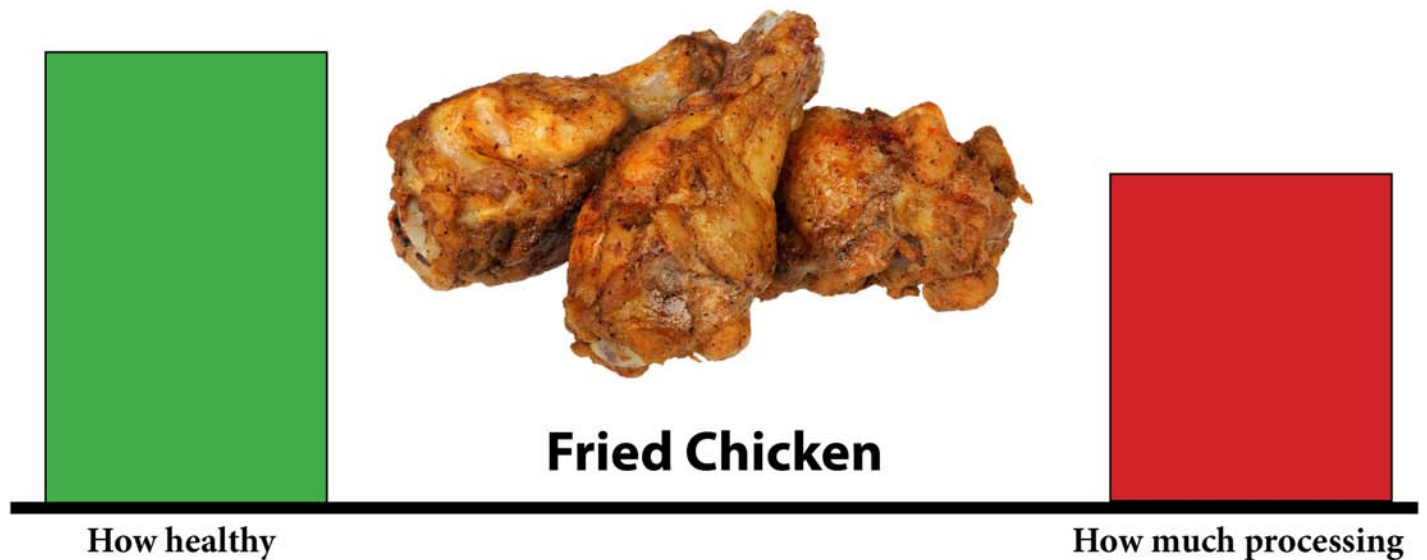
Grilled Chicken

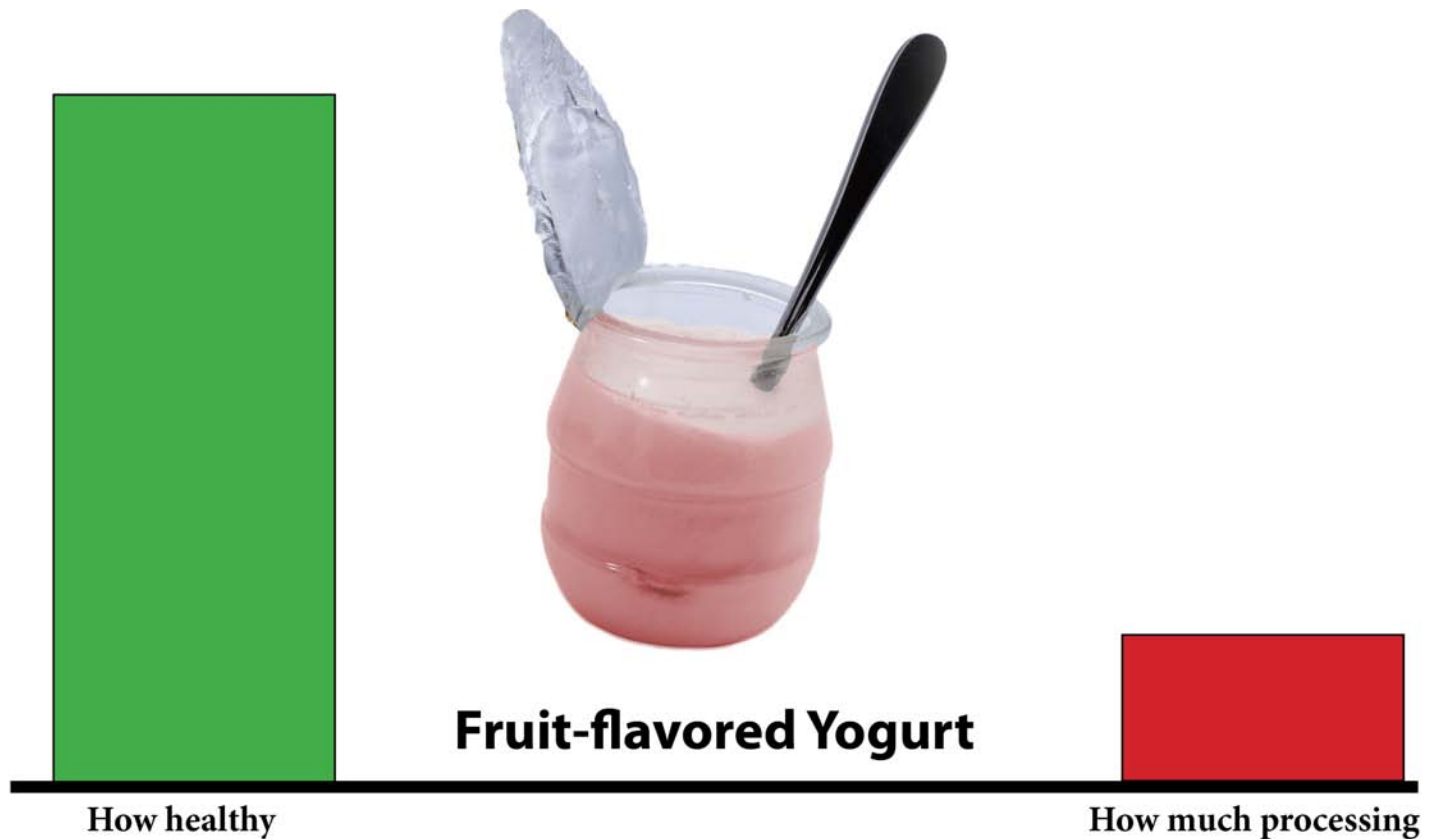
How healthy

How much processing









Lesson 1: Eat Real

— Cards —

Food Change



Frosted Corn Breakfast Cereal

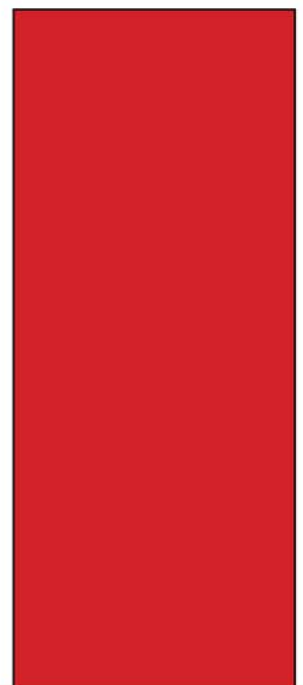


How healthy

How much processing



Chicken Nuggets



How healthy

How much processing

Lesson 1: Eat Real

— Cards —

Food Change



Orange Soda

How healthy

How much processing



**American Processed
Cheese Food**

How healthy

How much processing



Rice Cereal Treat

How healthy

How much processing

Lesson 1: Eat Real

— Activity Sheet —

Eat Real Action Plan

Name _____

Date _____

You have just learned all about why it is important to “Eat Real.” Eating real means eating whole foods from plants and animals, and not eating too much overly processed foods. When you “Eat Real,” you are helping your body be the best it can be, and you are also taking care of the earth.

In the Food Day lessons, you will make action plans that will get you on your way to following the Food Day Eating Goals. This action plan is like a trigger to remind you to “Eat Real.”

Samples:

My Action Plan:

I am going to eat an apple instead of a fruit roll up.
whole food **overly processed food**

Time of day (check one):

- ☐ At breakfast
- ☐ In the morning
- ☐ At lunch
- ☒ In the afternoon
- ☐ At dinner
- ☐ In the evening

Days of the week (check as many as you like)

- ☐ Sunday
- ☒ Monday
- ☐ Tuesday
- ☒ Wednesday
- ☐ Thursday
- ☒ Friday
- ☐ Saturday

My Action Plan:

I am going to eat grilled chicken breast instead of chicken nuggets.
whole food **overly processed food**

Time of day (check one):

- ☐ At breakfast
- ☐ In the morning
- ☐ At lunch
- ☐ In the afternoon
- ☒ At dinner
- ☐ In the evening

Days of the week (check as many as you like)

- ☐ Sunday
- ☐ Monday
- ☐ Tuesday
- ☒ Wednesday
- ☐ Thursday
- ☐ Friday
- ☒ Saturday

My Action Plan:

I am going to eat _____ instead of _____.
whole food **overly processed food**

Time of day (check one):

- ☐ At breakfast
- ☐ In the morning
- ☐ At lunch
- ☐ In the afternoon
- ☐ At dinner
- ☐ In the evening

Days of the week (check as many as you like):

- ☐ Sunday
- ☐ Monday
- ☐ Tuesday
- ☐ Wednesday
- ☐ Thursday
- ☐ Friday
- ☐ Saturday

Lesson 2:

Mostly Plants



Lesson 2: Mostly Plants

— Getting Started —

Overview

This lesson starts with students checking in on their **Eat Real Action Plan** and sharing their triumphs as well as their challenges. Students then confirm why it is very important to eat whole plant foods that they can get from supermarkets and also farms and gardens close to where they live. Plants contain hundreds of nutrients that their bodies need. That's why we want to eat "Mostly Plants" and have small portions of lean meat, poultry, fish, and low fat dairy foods — and when possible, have these from animals raised in a humane and sustainable way. Students look at illustrations of different plants and from these, students gain the appreciation that they eat many different parts of a variety of plants. They learn about filling half of their plates with fruits and vegetables and a quarter of their plates with grains. Remember from the last lesson that these foods should be whole rather than overly processed. Students are encouraged to share what they have learned with their families and suggest their families to buy and eat more plant-based foods together.

Behavior Change Objective

As a result of this lesson, students will have three-quarters of their plate be whole, plant foods.

Learning Objectives

Students will be able to:

- assess if they have been successful at following their **Eat Real Action Plan**;
- describe how a diet high in plant foods and low in saturated fat and cholesterol is good for our health;
- list the health benefits of eating roots, stems, leaves, flowers, fruits, and seeds;
- describe how to create a plate that has mostly plant-based foods.

Background for Teachers

If you have ever tried to change your own behaviors to be more healthful, you will probably agree that it is well worth the effort, but effort it is! Change comes slowly and it takes time and commitment to develop and maintain healthful habits. No doubt, change will be challenging to your students as well. We encourage you to check in with your students about their **Eat Real Action Plan** and we hope that you continue to make time to influence and encourage your students to adopt the Food Day Eating Goals of "Eat Real," "Mostly Plants," and "Not Too Much" of overly processed foods.

The focus of this lesson is the importance of having a diet with a strong foundation of whole plant foods. While animal foods are often rich in proteins, vitamins, and minerals, they are also often high in saturated fat and cholesterol. Those substances start clogging blood vessels even in youths and increase the risk of heart attacks as people get older. Plants are truly special. Not only are they essential for all life on earth, but they produce hundreds of natural chemicals, such as vitamins and minerals that help every organ — from our heart to our brain — in our body working right.

The U.S.D.A.'s MyPlate recommends that about three-quarters of our plates be plant foods: half fruits and vegetables and about one-quarter grains, of which at least half should be whole grains.

When students have the opportunity to experience whole plant foods with all their senses, as they get to do when they garden, cook, and eat foods from plants, they build their appreciation for eating plants just as they come from nature. Also, since foods from plants often have complex tastes that have bitter and/or sour flavors, students need to try these foods many, many times to develop a liking for them.

View this lesson as a way to build an appreciation for eating plants, and for students to really believe that when they eat whole foods from plants, they are making choices that are good for their own health and good for the health of the planet.

Lesson 2: Mostly Plants

— Core Activity —



Aim

To increase our understanding of the importance of eating mostly plants and make an action plan to make three-quarters of our meals based on whole plant foods.

Materials

- *Plants We Eat* cards
- *MyPlate* activity sheet
- *Choose MyPlate* activity sheet

Before You Begin

- Print and make copies of the *Plants We Eat* cards.
- Print and make copies of *MyPlate* and *Choose MyPlate* activity sheets for each student.

Procedure

1. Review Eat Real Action Plans

Have students take out their *Eat Real Action Plans* activity sheets. Ask students to share how they did. Encourage students to discuss their triumphs (sharing strategies that helped them be successful) as well as their challenges (sharing the barriers or obstacles they faced that made change hard). Remind them that change is hard yet is worth it to help them feel good now, be healthy in the future, and take care of the earth. If appropriate, you may share with students any personal experiences where you have tried to make changes and were successful.

2. Explore Why Plants Are Special

Ask students, “If there were no plants in the world, would we have food to eat?” Have students share their thoughts as they ponder this question. This can be done either as a large class discussion, or have small groups discuss and then share with everyone. At first, students might say they can eat food from animals such as milk, cheese, and meat. They might also say they can eat food like candy and cookies. Be sure the students think about what animals eat, and what foods like candy and cookies are made from. Have the students trace different foods back to plants. For example, eggs come from chickens, and chickens eat grains such as corn and oats. Continue the discussion until you feel your students are convinced that any food they can think of can be traced back to plants.

3. Discuss Why to Eat More Plants Foods and Fewer Animal Foods

Although animal products, such as meat, eggs, and dairy products, are rich in proteins, vitamins, and minerals, they are often also high in saturated fat and cholesterol. These can clog our blood vessels and increase our risk of heart attacks as we get older. Whereas plant foods are low in saturated fat and rich in dietary fiber, vitamins, minerals, and other potentially beneficial phytonutrients.

4. Investigate the Nutritional Benefits of Various Parts of Plants

Use the *Plants We Eat* cards to show the students that we eat many different parts of the plant: roots, stems, leaves, flowers, fruits, and seeds. As you review each part of the plant, have the students list examples of that plant part and discuss the nutrients we get from eating that part of the plant. Explain that eating all different parts of plants is a great way to get all of the nutrients we need.

5. Create a Plant-based Plate

Hand out the *MyPlate* activity sheet. Have students draw their lunch from yesterday or today if they have already had lunch. Now take a look at the *Choose MyPlate* activity sheet and have students compare their drawings to this plate. Have the students notice that on MyPlate, half the plate is fruits and vegetables because of all the nutrients that are in fruits and vegetables. Grains are about another quarter. Make at least half of these whole grains, such as brown rice and whole grain pastas and breads. Taken together, that is three-quarters of the plate! Note that protein foods include animal sources, such as lean meat, poultry, fish, and fat free or lowfat dairy foods and plant sources, such as beans, seeds, and nuts. Explain that using this plate is a way to remind us that when we eat meals, we want to cover most of our plate with foods from plants. Encourage students to fill their plate with whole, real foods, following the proportions of MyPlate. Snacks of overly processed foods, such as sugary drinks, candy, chips and processed packaged baked goods, are items that we can have once-in-a-while rather than as a regular part of what we eat. Have the students draw in a portion of vegetable they like to fill in the vegetable section, a fruit to fill in the fruit section, and a grain and a protein as well. That way, they have a visual of what a plant-based plate looks like filled with foods they like. Encourage the students to share their plate with their families so they can also have plant-based meals. Suggest an action plan to follow Choose MyPlate for at least three lunches at school and two dinners in the next week.

Lesson 2: Mostly Plants

— Digging Deeper —

Activities and Resources to Extend this Lesson

The Edible Schoolyard Project

<http://edibleschoolyard.org>

Join the Edible Schoolyard Network to share and search for lessons or best practices related to gardening, cooking, environmental studies and more in this online Resource Center.

Check out the Agriculture in the Classroom National Resource Directory

<http://www.agclassroom.org/>

The Agriculture in the Classroom National Resource Directory is an online, searchable database that lists hundreds of educational resources designed to help educators locate high quality classroom materials and information to increase agricultural literacy among their Pre-K through 12th grade students.

Start a School Garden

<http://www.whitehouse.gov/blog/2009/08/31/story-white-house-garden>

The White House Garden has inspired the nation to get gardening. Watch this inspirational video and seek out resources on school gardening in your school district or state.

Plan Your Garden with the School Garden Wizard

<http://www.schoolgardenwizard.org/>

A school garden offers a wonderful, creative space in which children of all abilities can achieve something real that is valued by others. Use the School Garden Wizard developed by the United States Botanical Garden and the Chicago Botanical Garden to get started.

Seek Out Garden Supplies and Curriculum

<http://www.kidsgardening.org/>

Visit the Gardening with Kids website to find inspiration to create a school garden, find gardening supplies, and discover excellent curricula about gardening, nutrition, and connecting positive food experiences to academic subjects.

Get Involved in Farm-to-School

<http://www.farmtoschool.org/>

Farm-to-School connects schools (K-12) and local farms with the objective of serving healthy meals in school cafeterias; improving student nutrition; providing agriculture, health, and nutrition education opportunities; and supporting local and regional farmers. Talk to your school food service director about initiating a connection to local farms.

Join Food Corps

<http://food-corps.org/>

Food Corps is the nation's school garden and farm-to-school service program. Watch their video to get inspired to make a change.

Teach About our Food Production system

<http://blogs.tc.columbia.edu/cfe/education/nutrition-curriculum/growing-food/>

Help your students appreciate the food production system by teaching **Growing Food**, a part of the Linking Food and the Environment (LiFE) Curriculum Series.

Create Art Inspired by Plant-based Foods

<http://www.artandhealthyliving.org/>

When we create art, we use observation skills and build appreciation for what we are observing. Use Studio In A School's Art & Healthy Living program as inspiration for your own ideas for connecting eating mostly plants with the creation of art.

Groove with Eat Like a Rainbow

<http://eat-like-a-rainbow.com>

Eat Like A Rainbow is a rocking, funky danceable collection of quirky kids songs about healthy food and sustainable living. Crunchy rhythms and tasty harmonies, with a very nutritious groove throughout, really gets kids dancing!

Lesson 2: Mostly Plants

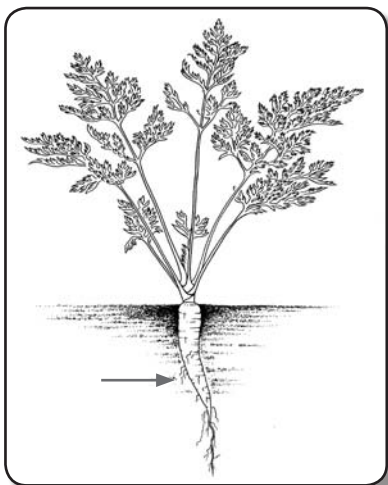
Plants We Eat

— Cards —

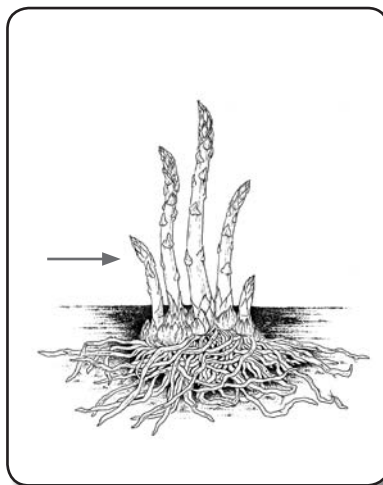
The following pages have cards with detailed illustrations of various plants we eat. Each card represents a different structural part of plants that we eat: roots, stems, leaves, flowers, fruit, and seeds.

You might want to discuss with your students that chefs classify vegetables as plants we eat that are savory and typically used as part of a meal, and fruits as the sweet part of the plant that we typically eat as dessert. Botanists (plant scientists) classify the plants we eat as the structural part of the plant that we eat. Challenge students to name as many vegetables as they can that are really the fruit of the plant (examples: tomatoes, peppers, zucchini, winter squash, cucumbers, and string beans). You can also discuss how many different foods we eat are seeds: grains such as wheat, oats, corn, and rice; nuts such as almonds, cashews, and walnuts; and legumes such as black beans, kidney beans, and peanuts.

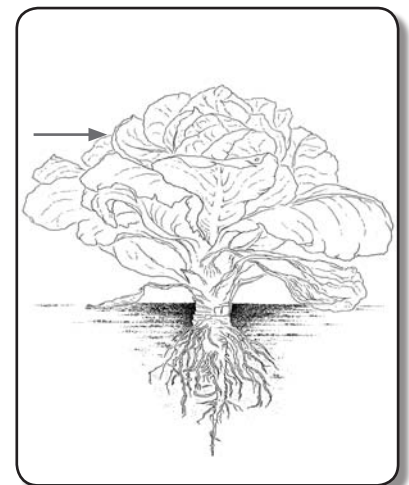
Project or hold up each card and ask the students to name what plant it is and to point to and name the part of the plant that we eat. For each plant part, ask students to name other foods that are also that part of the plant. Also review the nutrients that are in each part of the plant so students appreciate why to eat mostly plants.



Roots – carrot



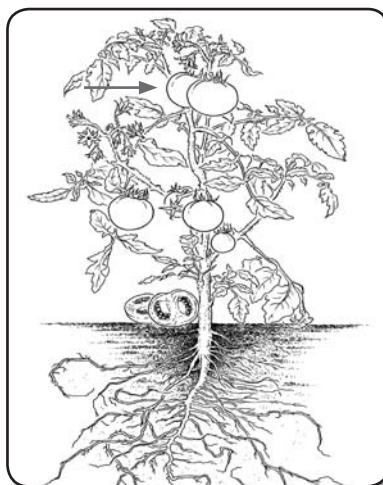
Stems– asparagus



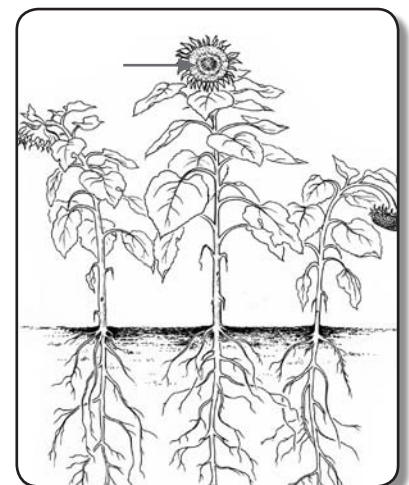
Leaves – lettuce



Flowers – broccoli

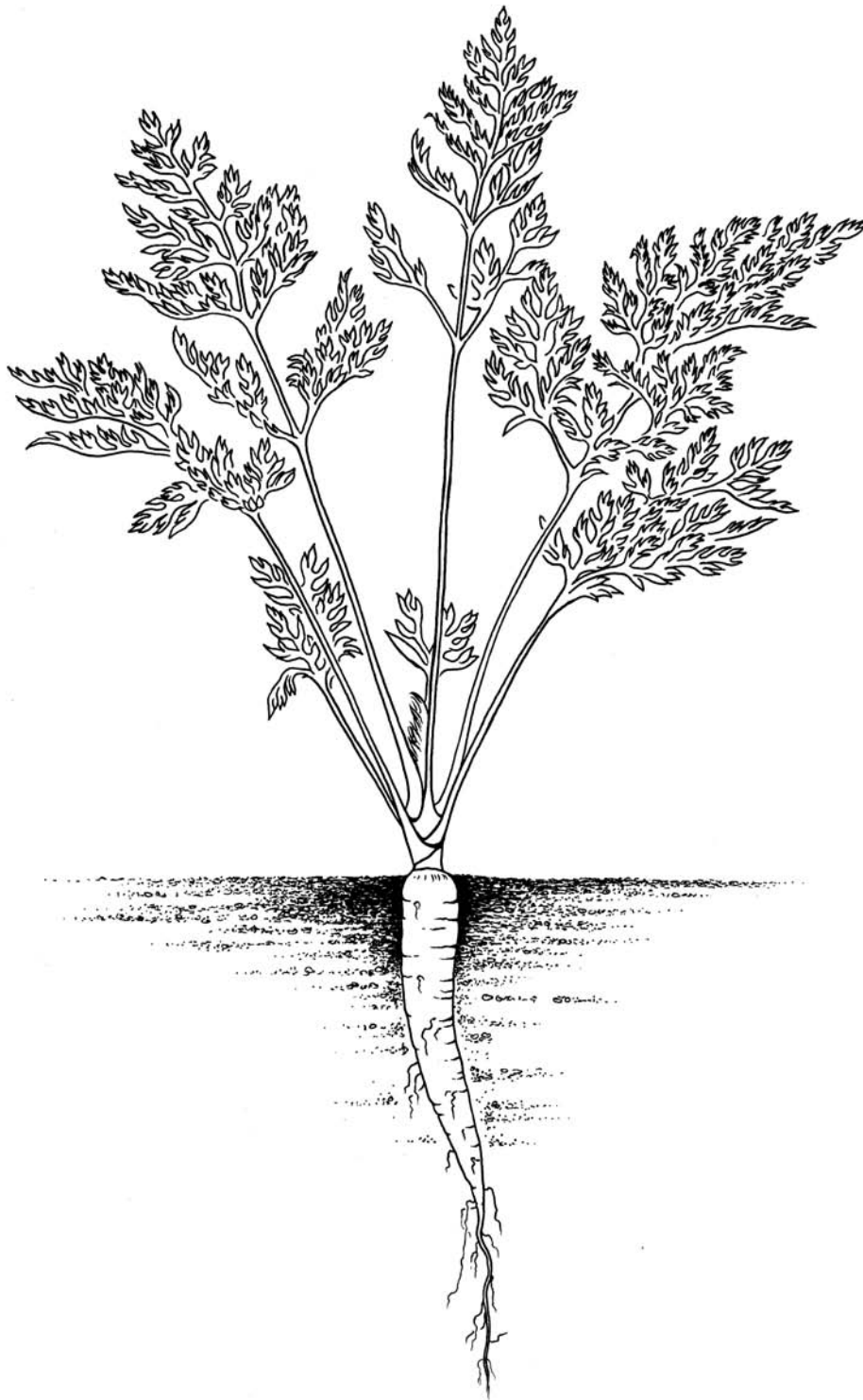


Fruits – tomato



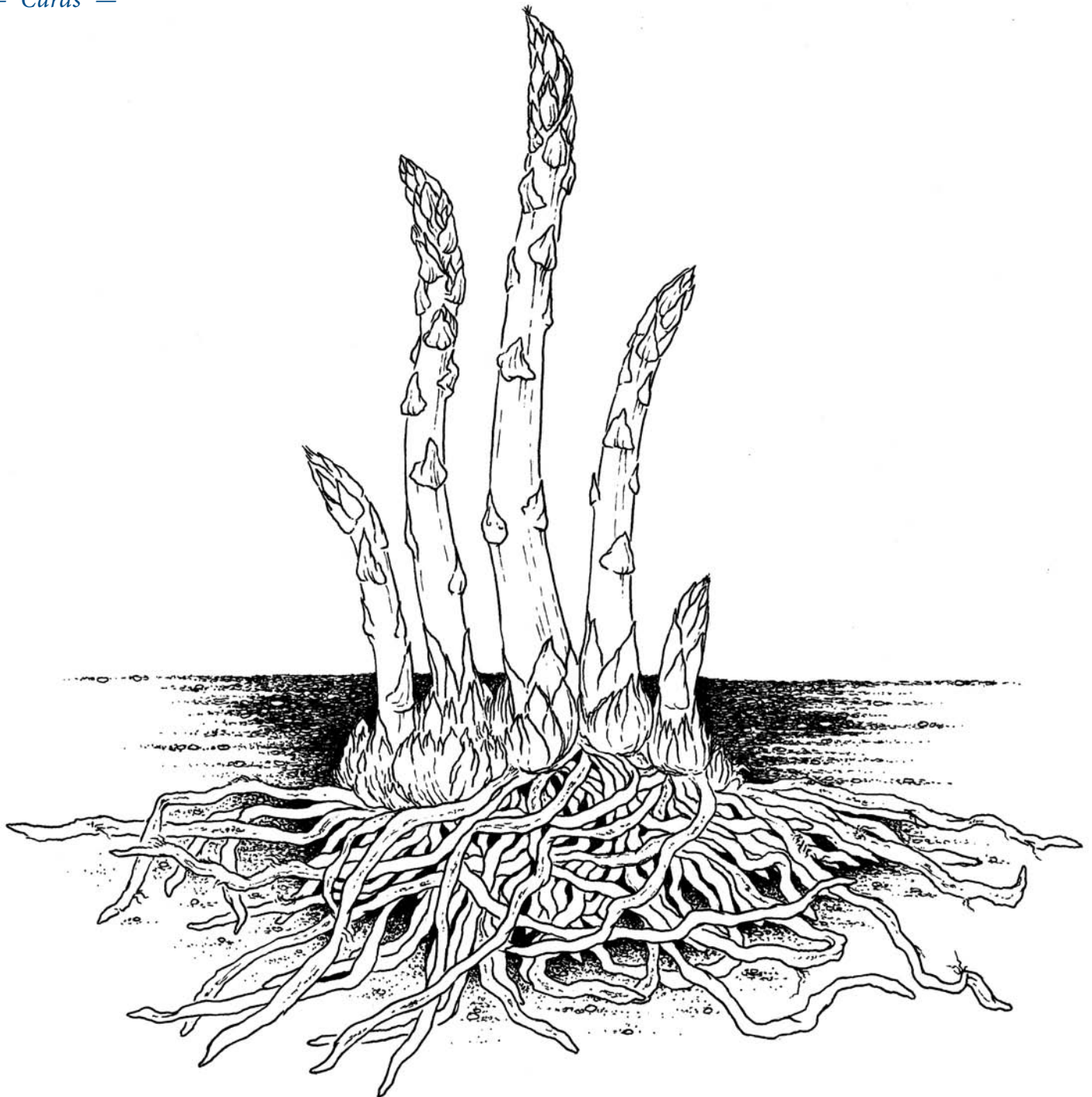
Seeds – sunflower seeds

Illustrations from Growing Food, Linking Food and the Environment Curriculum Series.
Reprinted with permission from Teachers College Columbia University, Center for Food & Environment.



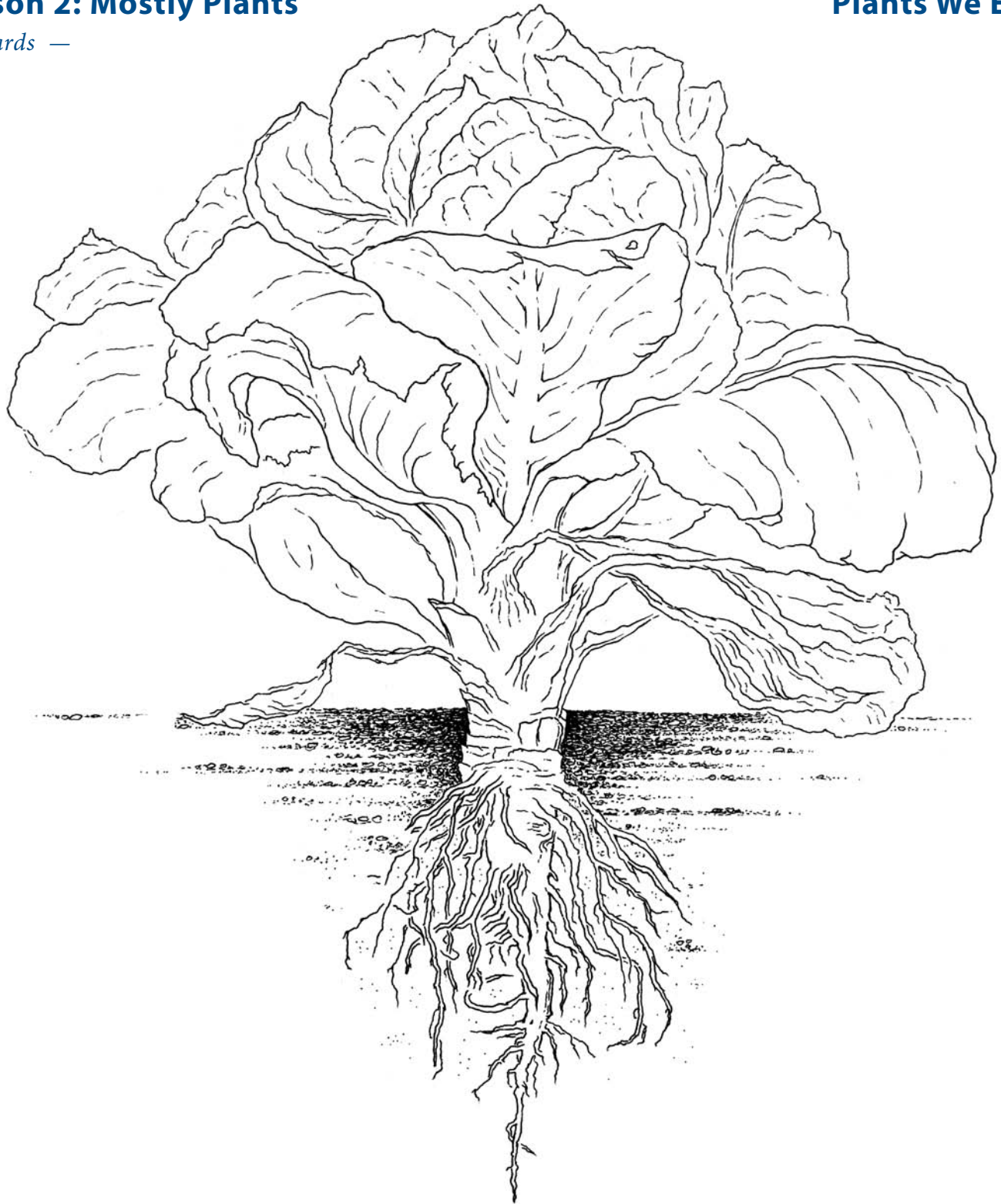
Examples of roots we eat: beet, carrot, cassava, horseradish, lotus root, parsnip, rutabaga, sweet potato, turnip

Nutritional benefits of eating roots: Orange roots, such as carrots and sweet potatoes, are good sources of vitamin A. Vitamin A can help us see well in the dark. Other root vegetables are good sources of fiber and complex carbohydrates, and various phytonutrients that can help every part of our body. For people who live in climates that are cold in the winter, roots are great vegetables to eat all winter long since they can be stored for a long time, are hardy and filling, and are loaded with nutrients we need.



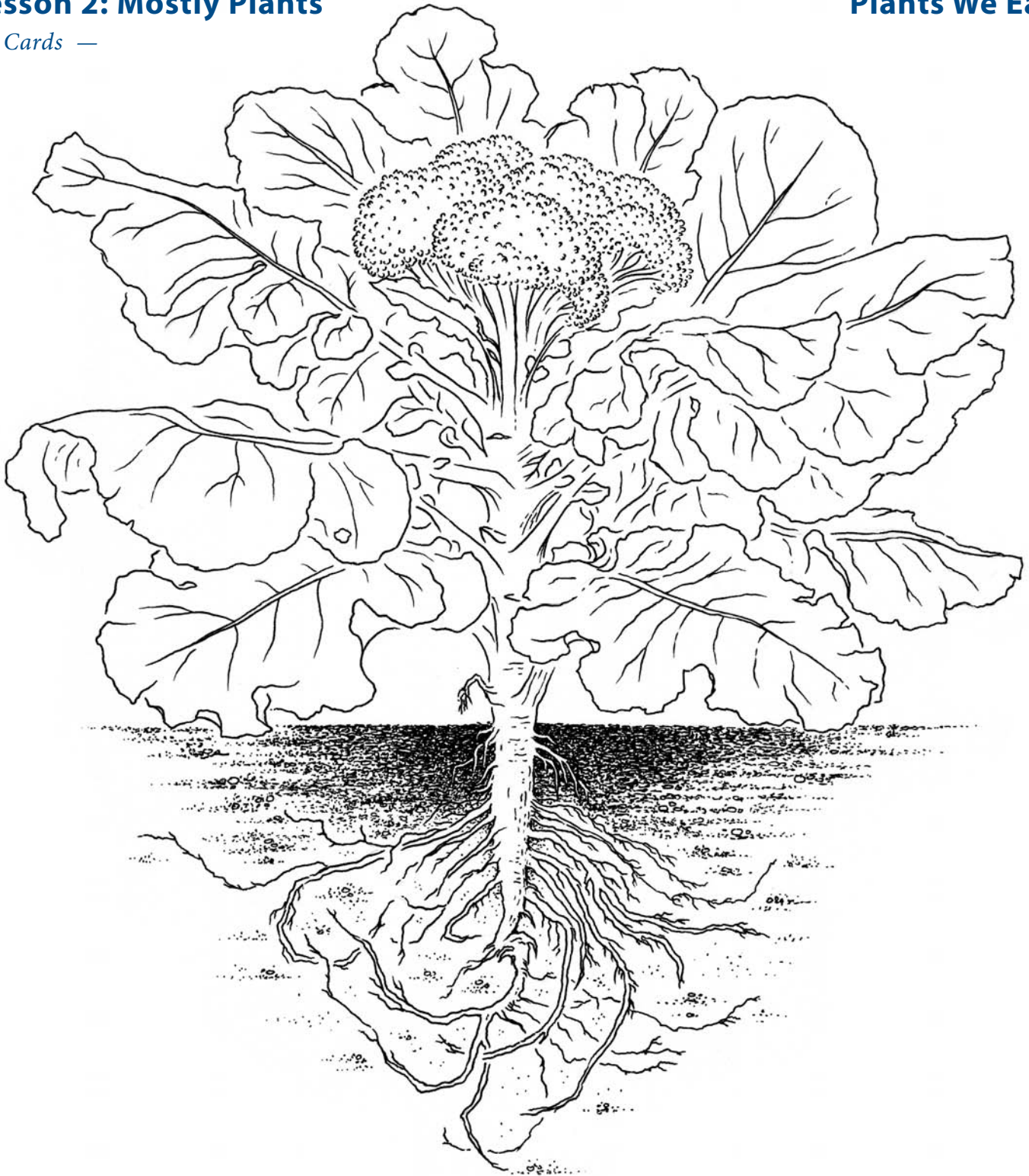
Examples of stems we eat: asparagus, garlic, ginger, white potato. Did you know that garlic and white potatoes are really underground stems of the plant? Garlic is a bulb. Potatoes are tubers that are underground swellings in the stem that store energy and other nutrients for the potato plant. Celery is a stalk, or leaf stem. The true stem of the celery plant is the base where all the stalks come out.

Nutritional benefits of eating stems: Asparagus are one of the first plants that come up in the spring. They are rich in potassium and phytonutrients. Other stems are also rich in these same nutrients.



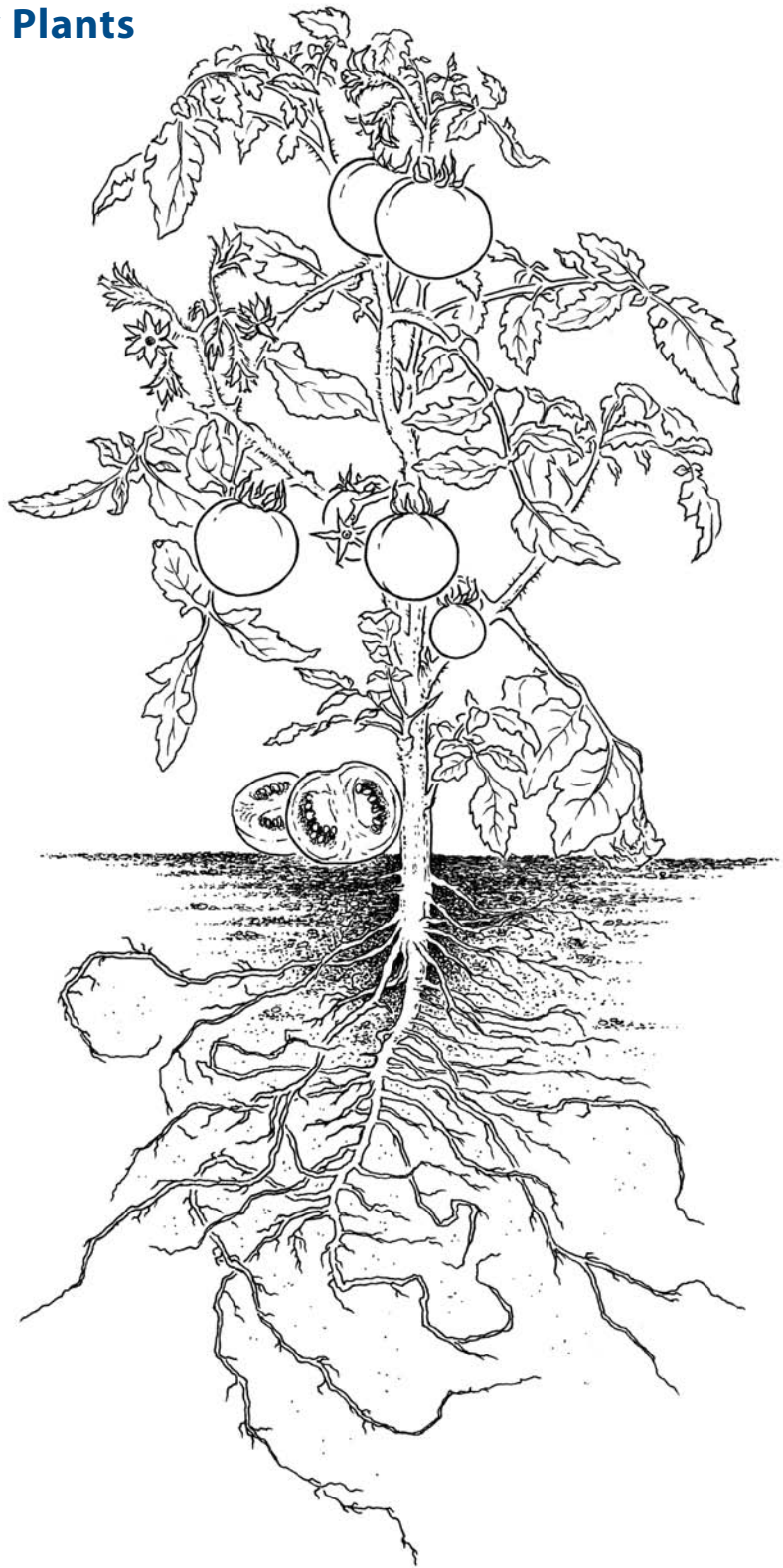
Examples of leaves we eat: basil, beet greens, cabbage, cilantro, collards, kale, lettuce, mustard, parsley, spinach

Nutritional benefits of eating leaves: Leaves are good sources of calcium, iron, many vitamins, and various phytonutrients. The darker green the leaves, the more packed with nutrients. Since leaves are low in calories and high in nutrients, they are one of the most nutrient dense foods we can eat. Leaves are available in the late spring, summer and fall, and might also be available in the winter in warmer climates.



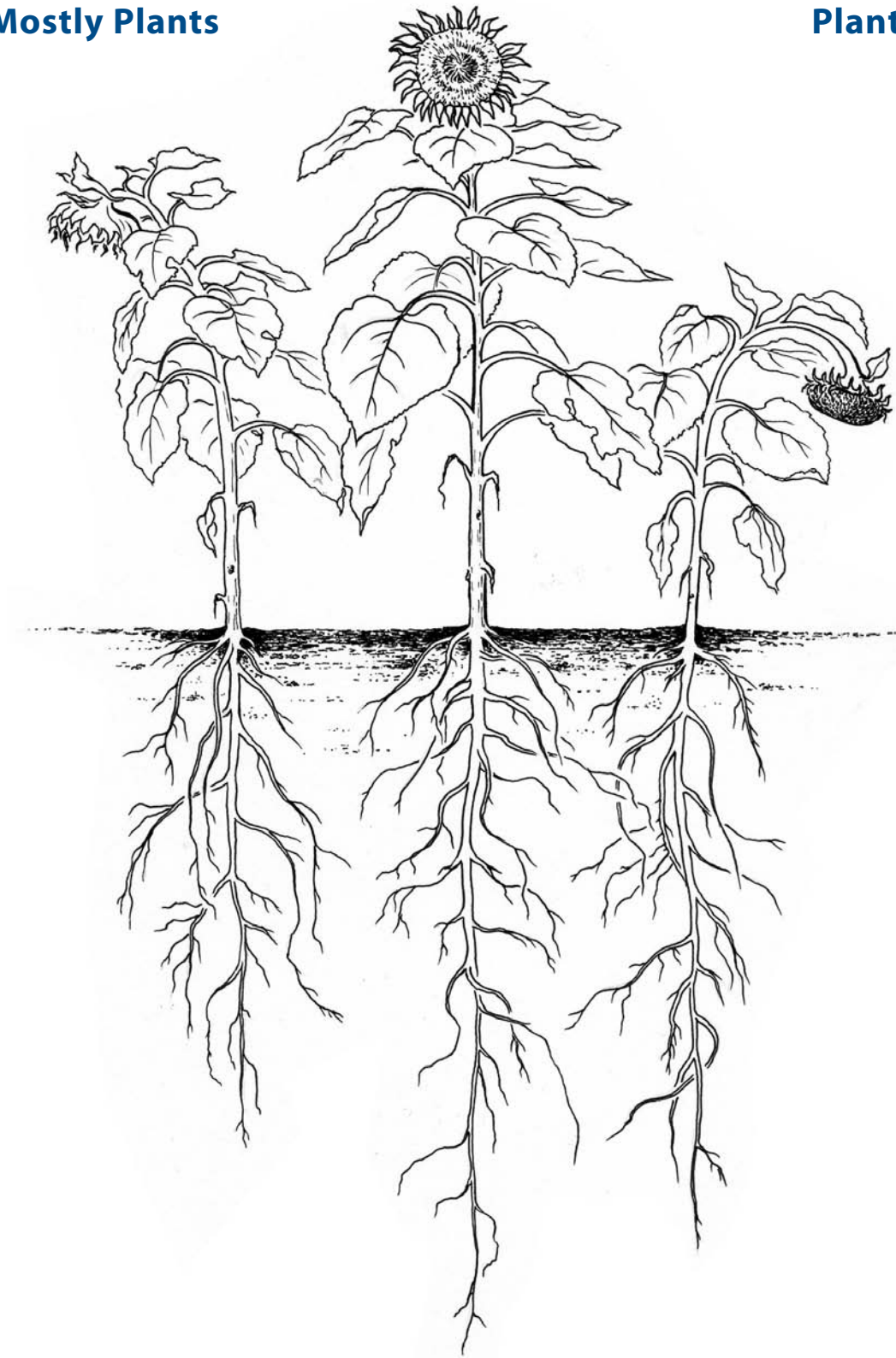
Examples of flowers we eat: borage, broccoli, calendula, cauliflower, chive blossoms, garlic blossoms, nasturtium, squash blossoms, violets

Nutritional benefits of eating flowers: Flowers come in various colors and shapes, and different flowers have different nutrients. Eating flowers can give us the phytonutrients that can help us stay healthy now and prevent diseases in the future.



Examples of fruit we eat: vegetables that are the fruit of the plant: cucumbers, peppers, squash, string beans, tomatoes, zucchini; **fruit examples:** apples, blueberries, cantaloupe, grapes, oranges, peaches, pears, plums, raspberries, strawberries, watermelon.

Nutritional benefits of eating fruit: Fruits come in so many different colors! Just about all fruits have fiber and complex carbohydrates. Various different colors are rich in different vitamins and phytonutrients. When having fruit, choose a wide variety of colors.



Examples of seeds we eat: seeds that are grains: barley, oats, quinoa, rye, wheat; **seeds that are good sources of protein:** black beans, cashews, chick peas, kidney beans, peanuts, pinto beans, sunflower seeds

Nutritional benefits of eating seeds: Grains are a good source of complex carbohydrates, fiber, and B vitamins. The seeds that are the good sources of protein also have fiber and various phytonutrients. Beans are great as part of a meal, and nuts and seeds can be sprinkled over vegetables and/or grains as the protein part of a meal.

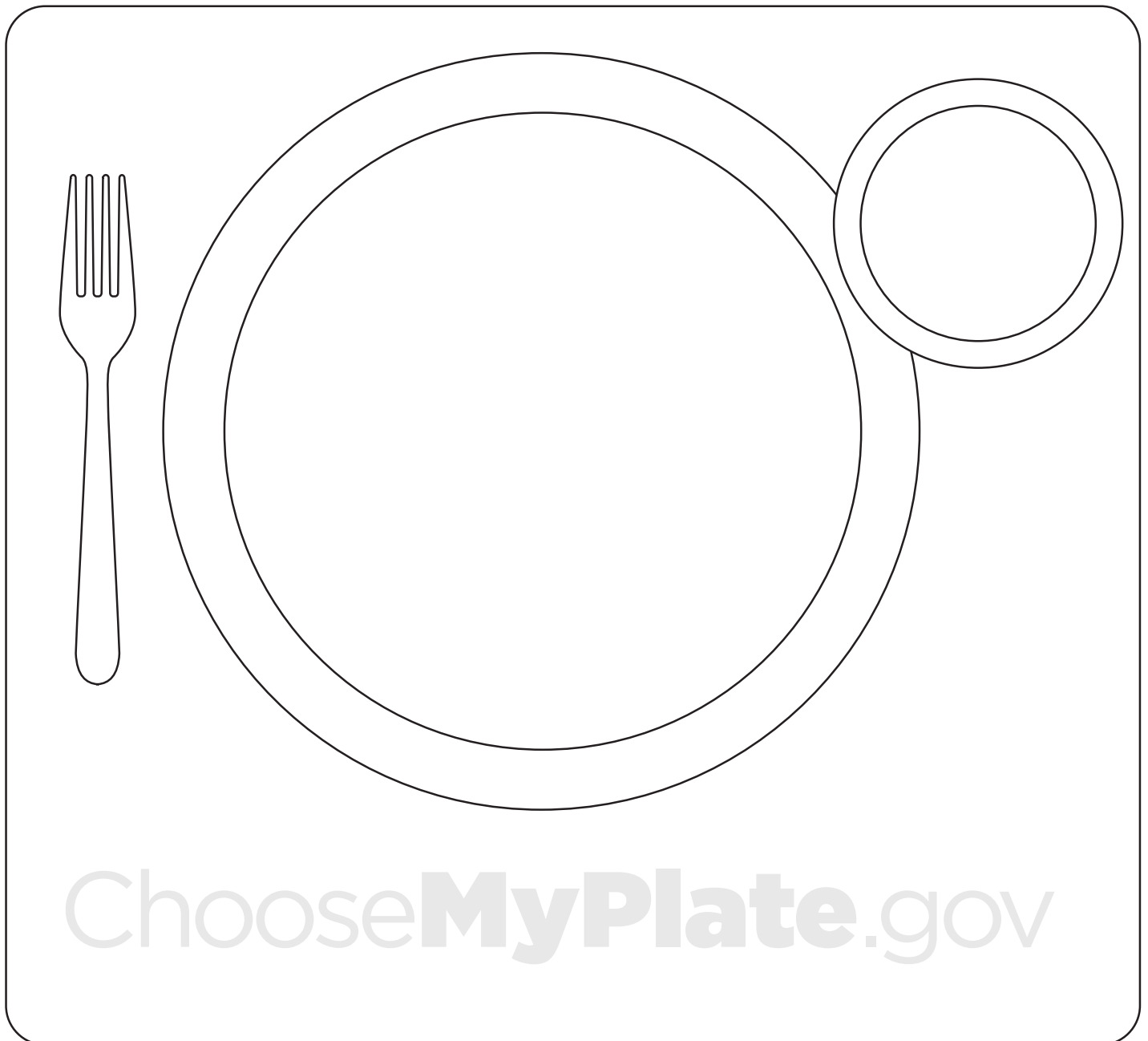
Lesson 2: Mostly Plants

— Activity Sheet —

Name

Date

Below is a picture of a plate and a cup. Draw what you ate and drank for lunch yesterday or today. Think about how much space each item took on the plate and make your drawing as accurate as possible.



Lesson 2: Mostly Plants

— Activity Sheet —

Choose MyPlate

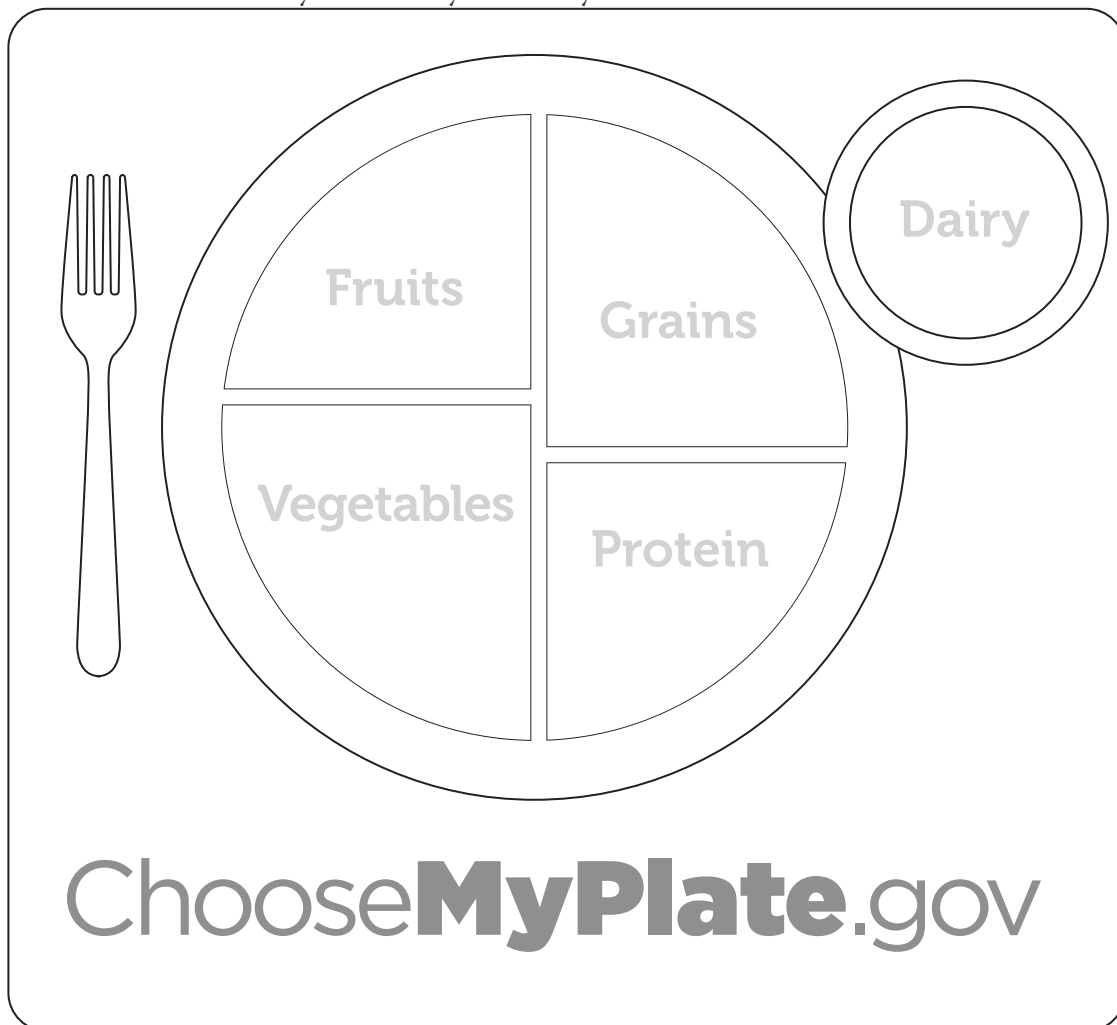
Name _____

Date _____

This is MyPlate! When you follow MyPlate, at least three-quarters of your plate is plants. The **amount** you should have in each section is shown. You might fill the Fruit section with apple slices, a peach, or some blueberries. Fill the Vegetables section with carrots, string beans, zucchini, or other vegetables. Fill your Grain section with whole-grain bread, pasta, or brown rice. Your Protein section can consist of animal-based proteins such as chicken, fish, or beef, or plant-based proteins such as beans or tofu. For the Dairy section you can have an 8-ounce glass of fat free milk, lowfat yogurt, or a piece of cheese.



On the plate below, draw a meal that you would like to eat that follows the amounts shown on MyPlate. Over the next week, try to eat a MyPlate lunch three times at school and a MyPlate dinner two times. Share MyPlate with your family!



Days I followed MyPlate at **school lunch**:

☐ Monday ☐ Tuesday ☐ Wednesday ☐ Thursday ☐ Friday

Days I followed MyPlate at **dinner**:

☐ Monday ☐ Tuesday ☐ Wednesday ☐ Thursday ☐ Friday ☐ Saturday ☐ Sunday

Lesson 3:

Not Too Much



Lesson 3: Not Too Much

— *Getting Started* —

Overview

Students review the health and ecological benefits of eating real, and mostly plants and what positive changes they have made. Then they learn about why it is important to limit overly processed foods that contain little or no nutrients and often have high amounts of added fat and sugar. They learn that the recommendation for empty calories is no more than 150 calories per day for this age group and learn to translate that to teaspoons of sugar and fat. They measure out the teaspoons of sugar and fat in common foods and learn that many of these foods have more than the recommended daily maximum — just in one food or drink. Since we live in an environment that is dishing out more fat and sugar than our bodies can handle, the “Not Too Much” message is very important. The students write a paragraph or create a drawing that describes why eating plenty of whole plant-based foods and fewer overly processed foods is personally important. Finally, they create a “small-size-it” action plan for how they will have a small size when they do have processed foods such as sweetened drinks, chips, candy, fast foods, and baked goods.

Behavior Change Objective

As a result of this lesson, students will eat fewer overly processed foods with excessive sugar and fat.

Learning Objectives

Students will be able to:

- assess if they have successfully consumed more whole, plant-based foods at their meals;
- state the number of empty calories they can have in a day and how that translates into snacks and drinks;
- discuss how much fat and sugar are in commonly consumed snacks and drinks;
- create an action plan for “small-sizing” overly processed foods.

Background for Teachers

The first two lessons are about what to eat — to eat real food and to eat mostly plants. This lesson is on the third Food Day Eating Goal, to not eat too much of overly processed foods. In today’s world, telling kids what not to eat is a very necessary reality.

The food industry aggressively markets unhealthful foods to kids yet rarely prompts children to eat whole, healthful meals. These marketing efforts are pervasive, and include: television advertising, advergames, web sites, cartoon characters on packages, and even toys included with nutritionally poor fast-food meals. They help kids cultivate a taste for white bread, French fries, fatty meat, fatty cheese, and sweetened drinks. Most of the foods marketed to kids are mediocre fast foods, sugary breakfast cereals, and candies. Many of them are based on white flour, sugar, fat, and salt, plus a sprinkling of artificial colorings and flavorings.

Additionally, ordinary sugar and high-fructose corn syrup make up one-sixth of the average American’s calorie intake. Half of all added sugars come to us in the form of “liquid candy”: soft drinks, fruit drinks, sports drinks, and iced teas. And it is those sugary drinks that pose the biggest risk of weight gain, because they don’t seem to curb appetite as much as solid foods do.

See this lesson as a way to give your students the antidote to food industry marketing. They learn that our bodies cannot handle excessive sugar and fat on a regular basis and see first-hand how much fat and sugar are in common foods. We believe that the way to have students become people who want to make healthful choices for themselves, despite the obstacles, is for them to believe that it has personal benefits. Encourage your students to think seriously as they write their personal essay on making healthful choices, and encourage them to make a “small-size-it” action plan that is specific, clear, and measurable to be on the road to positive change.

Lesson 3: Not Too Much

— Core Activity —



Aim

To explore why it is important to not eat excessive fat, sugar, and salt and make an action plan to “small-size” overly processed foods.

Materials

- *Fat and Sugar in Food and Drinks* experiment sheet
- *Play Dough* recipe
- *Sugar and Fat* cards
- *Overly Processed Food* card
- sugar
- play dough
- teaspoon
- 16 clear plastic cups
- (optional) EMPTY 12-ounce can and 20-ounce bottle
- *Small-Size-It Action Plan* activity sheet

Before You Begin

- Make play dough.
- Cut out the *Sugar and Fat* cards and print the *Overly Processed Foods* card.
- Print and make copies of the *Small-Size-It Action Plan* activity sheet for each student.

Procedure

1. Review Eating Plant-based Meals

Ask the students to share how it went when they showed their family their *Choose MyPlate* action plans. Encourage students to share positive feedback from their families as well as challenges their families face when trying to eat plant-based meals. Remind the students that the point of these Food Day lessons is to bring what they learn to their families and communities.

2. Discuss Why to Small-Size-It

Discuss as a class that in the first few lessons, the main focus has been about WHAT TO EAT, that is to “Eat Real”: whole foods from plants and animals with a focus on having “Mostly Plants.” This lesson focuses on the foods we want to eat less of. That is, overly processed foods that have been significantly changed from how they exist in nature such as soda and other sweetened drinks, chips, candy, and highly processed packaged snacks. When these foods are changed from their whole state, the nutrients that came in them are often removed and sugar, fat, and salt are added. Although we all like the taste of these additives, when we have too much of them, our bodies cannot be their best and we are at risk of getting diseases as we get older. We can try to choose healthier options of processed foods that may have less fat, sugar, and salt in them, but the most sure way is to have these foods once-in-a-while and when we do, to remember the power of “small-sizing-it.”

3. Explain Empty Calorie Recommendations

Discuss with students that after you eat your meals according to MyPlate portions, there is a maximum number of empty calories* we can have within a day from beverages and snack foods. Empty calories are energy (calories) we get from fat and sugars that are added to processed foods. Empty calories give us excessive energy while providing very little or none of the nutrients we need. You might want to remind students of the activity in lesson 1 with the *Food Change* cards that showed the degree of nutritiousness and the degree of processing of various foods. Explain that reducing the number of empty calories will help them be their best today and stay healthy into the future. For children their age, the recommended maximum is 150 empty calories a day. Follow the *Fat and Sugar in Food and Drinks* experiment sheet. You will first show the students 150 calories of fat and sugar. Then you will measure the amount of fat and sugar in various foods. It becomes apparent that we use up all of our empty calories for the day with ONE small sweetened beverage, OR ONE bag of chips that is high in fat, OR ONE highly processed packaged snack high in sugar and fat. Clearly, our food environment is providing too many large portions of overly processed foods, consequently compromising our health.

4. Write Personal Essays (optional, if time permits, or assign as homework)

Have the students write an essay about why it is personally important to them to follow the Food Day Eating Goals. They can think about what they want to be good at right now (such as school subjects, sports, dancing, music) and how following the Food Day Eating Goals will help them be successful. The more the students feel personally connected to and committed to the Food Day Eating Goals, the more they will be able to make changes and maintain them.

5. Create a Small-Size-It Action Plan

Hand out the *Small-Size-It Action Plan* activity sheet. Follow the directions on the sheet. The students are to make a plan that they will have a smaller portion of an overly processed food. Remind students they can also have a whole food instead of a highly processed food. Make sure to review the action plans to give students guidance on making their plan clear, specific, and measurable.

* empty calorie recommendations: www.choosemyplate.gov/foodgroups/emptycalories_amount.html

Lesson 3: Not Too Much

— Digging Deeper —

Activities and Resources to Extend this Lesson

Book Jump With Jill

<http://www.jumpwithjill.com/>

Are you ready to rock?! Jump with Jill is a rock 'n roll nutrition show that encourages your students to rock their way towards great health.

Host a Viewing of Super Size Me

<http://super-size-me.morganspurlock.com/>

Super Size Me is a film documenting what happens to Morgan Spurlock when he decides to eat nothing but food from McDonalds for 30 days. The film is available in a classroom version made especially for students.

Read or Watch Fast Food Nation

<http://www.foxsearchlight.com/fastfoodnation/>

This film and book provides an eye-opening journey into the dark heart of the All-American meal.

Watch Simulations That Show the Consequences of “Too Much”

<http://www.tc.edu/cfe>

These simulations show what happens in our blood when we have too much fat and sugar. To access these videos, go to the Teachers College Columbia University Center for Food & Environment website and click on the right side Spotlight on Choice, Control & Change. The consequences videos are in the Unit 4 section and you will find other resources on this site as well.

Check Out Chew On This

<http://www.chewonthis.org.uk/>

This UK website geared towards kids aged 11-14 includes information on the repercussions of eating too much fat, sugar, and salt; and many activity sheets on different food topics. It is a strong website for advocating eating whole foods and not eating too much processed foods high in fats, sugar, and salt.

Make Simple Swaps with Change4life

<http://www.nhs.uk/Change4Life/Pages/change-for-life.aspx>

This is a National Health Services (UK) website that focuses on eating healthy and exercising. Check out the Change4life for adults tab, where you can find information to make smart swapping choices for small-sizing portions, and snack and fiber swapping. Under the “partners & supporters” tab, click on the tools section to find handouts and posters with information on healthful living.

Get the Power of Choice

http://www.fns.usda.gov/tn/resources/power_of_choice.html

The Power of Choice was developed by the U.S. Department of Health and Human Services' Food and Drug Administration and USDA's Food and Nutrition Service. It is intended for after-school program leaders working with young adolescents. Check out the curriculum and play the power of choice song to inspire your students to use their power.

Teach Choice, Control & Change

<http://blogs.tc.columbia.edu/cfe/education/nutrition-curriculum/c3/>

This inquiry-based science curriculum will help your students learn the connections between our biology, the built environment, personal behaviors, health, and body weight and apply what they learn by changing their own food and activity choices.

Lesson 3: Not Too Much

— Experiment Sheet —

Fat and Sugar in Food and Drinks

The purpose of this activity is for students to see, first hand, just how much fat and sugar is in overly processed foods. Instead of feeling guilty about eating these foods, our goal is to shock the students and make them angry that our food system is filled with products that contain excessive and unhealthful amounts of fat and sugar. They can positively rebel against our mainstream food system by making a conscious effort to choose whole foods and to “small-size-it” when they do have overly processed foods. The maximum of 150 empty calories for the day is used up by ONE sweetened beverage, **OR** ONE bag of chips, **OR** ONE highly processed packaged snack high in fat and sugar (NOT ALL THREE).

Throughout this activity, have students come up and help you with the measuring. When measuring sugar, make sure the sugar is at a level teaspoon (you can overfill the spoon and then give it a tap or shake so that the sugar is straight across the top, or you could use a flat edge to even off the top of the spoon).

Set-up

1. Make play dough (see recipe on page 48).
2. Make play dough into teaspoon-sized balls. Put play dough in a plastic teaspoon, slip out, and make into a ball. Use this ball as a model and make more balls. Each ball represents one teaspoon of fat.
3. Print and cut out **Fat and Sugar Cards** (see pages 49–50).
4. Place each card by a plastic cup. Have the side without the fat and/or sugar information facing the students.

Procedure

1. (Card 1) Show the students that if they get ALL of their maximum empty calories from sugar it would come to 10 teaspoons a day. Measure out 10 teaspoons of sugar into a clear plastic cup to demonstrate how much sugar this is.
2. (Card 2) Explain that from 1915 until the 1960s, Coke was sold in 6.5-ounce (reusable) bottles. Measure out 5 teaspoons of sugar and explain that this is the amount of sugar in a 6.5-ounce bottles. This uses about half of our empty calories. Use the **Overly Processed Food** card to show images of the beverages and foods. This will help the students visualize the foods.
3. (Card 2) In the 1960s, Coke introduced 12-ounce aluminum cans. Measure out 9 teaspoons of sugar and explain that this is the amount in a 12-ounce can of Coke and other types of soda. A 12-ounce can of soda uses up all your empty calories for the day.
4. (Card 2) In 1993, Coke introduced a 20-ounce plastic bottle. Over the years, this has become a popular size of beverage, especially among children and youth. Measure out 15.5 teaspoons of sugar and explain that this is the amount of sugar in a 20-ounce bottle of Coke and other types of soda. Note that a 20-ounce bottle has way more sugar than the recommended maximum empty calories.
5. (Card 3) Ask the students how much sugar they think is in 20-ounce bottles of fruit punches and sweetened iced teas. Measure out another 15.5 teaspoons of sugar and explain that fruit punches and sweetened iced teas have the same amount of sugar as soda.
6. (Card 4) Ask the students how much sugar they think are in flavored waters (such as Vitamin Water) and sports drinks. Measure out 8 teaspoons of sugar and explain that these are still sweet but have about half the sugar as other sweetened beverages.
7. (Card 5) Show the students that if they get ALL of their maximum empty calories from fat it would come to 3.5 teaspoons. Place 3.5 play dough balls (representing fat) into a clear plastic cup to demonstrate how much fat this is.
8. (Card 6) Measure out the fat (play dough balls) in different sizes of bags of chips as on the card. Small bags of chips are one ounce. Chips also typically come in about two or seven ounce bags.
9. (Card 7) Explain that if you have a processed snack (INSTEAD of a sweetened beverage or chips) for your empty calories, it has both sugar and fat. Five teaspoons of sugar and 2 teaspoons of fat use up all your empty calories.
10. (Card 8) Measure out the amount of sugar and fat in different sizes of peanut butter cups and explain that about a medium-sized snack uses all your empty calories. Large sizes exceed the maximum for empty calories.
11. Have the students look at the cups with the sugar and fat and ask them to share what they think, what was shocking, and what they want to do differently after seeing this demonstration. Explain that the students can start by choosing whole foods instead of overly processed foods. When they do have overly processed foods — small-size-it!

NOTE: 4 grams of sugar equals 1 teaspoon, 5 grams of fat equals 1 teaspoon. If your students have overly processed snacks they often eat, calculate how many teaspoons of sugar and fat are in these snacks. Be sure to look at the food label carefully to see how many servings are in the packages. Many “single-size” packages have more than one serving.

Ingredients

2 1/2 cups flour
1 1/4 cup salt
1/3 cup cream of tartar
1/3 cup vegetable oil
2 1/2 cups water
Yellow food coloring

Supplies

Hot plate or stove
1 spoon
Measuring cups
Measuring spoons
4 quart pot

Directions

1. Combine ingredients in pot over medium heat. Use enough yellow food coloring to give the play dough an unappealing color that looks like fat.
2. Stir constantly, frequently scraping the bottom of the pot to make sure it does not stick. When the dough has formed into a sticky, solid mass, remove it from the heat.
3. Set the play dough aside until it is cool enough to be handled.
4. Knead the dough on a smooth, clean surface for several minutes, until it is smooth and elastic.

Adapted from www.kinderplanet.com/playdo.htm.

Go to <http://blogs.tc.columbia.edu/cfe/education/nutrition-curriculum/c3/c3-supplemental-resources/making-play-dough/> to watch a video that demonstrates making this play dough. Please note: the recipe above is half of what is made in the video. The amount of play dough in this recipe is plenty for this activity.

Lesson 3: Not Too Much

— Cards —

Fat and Sugar Cards

Print, copy, cut out, and fold these cards into table tents to put by the cups with the side that only says the name of the food or beverage or food facing out toward students. You will turn around the cards to reveal how much sugar or fat is in the food or beverage as you measure it out. Compare what is in these single foods and beverages to the recommended maximum (card 1 if all empty calories used on sugar, card 5 if empty calories are split between fat and sugar).

**Empty calories only
from sugar**

Card 1

Card 1

**Empty calories only
from sugar**
10 teaspoons (t) sugar (S)

**Cola
(and other soda pop)**

Card 2

Card 2

Cola
6.5-oz. bottle = 5 t S
12-oz. can = 9 t S
20-oz. bottle = 15.5 t S

**Fruit Punch and
Sweetened iced tea**

Card 3

Card 3

**Fruit Punch and
Sweetened iced tea**
20 oz. = 15.5 t S

**Flavored Waters and
Sports Drinks**

Card 4

Card 4

**Flavored Waters and
Sports Drinks**
20 oz. = 8 t S

Lesson 3: Not Too Much

— Cards —

Fat and Sugar Cards

**Empty calories only
from fat**

Card 5

Card 5

**Empty calories only
from fat**

3.5 t F

Potato chips

Card 6

Card 6

Potato chips

1 ounce = 2 t F

2 ounces = 4 t F

7 ounces = 15 t F

**Empty calories from
sugar and fat**

Card 7

Card 7

**Empty calories from
sugar and fat**

5 t S, 2 t F

Peanut-butter cups

Card 8

Card 8

Peanut-butter cups

1 cup = 1.5 t F + 3 t S

2 cups = 2.5 t F + 5 t S

3 cups = 4 t F + 8 t S

Lesson 3: Not Too Much

— Cards —

Overly Processed Foods



This thick glass bottle holds **6.5 ounces of soda** and was the primary way soda was sold from 1915 until the 1960s.



This aluminum can holds **12 ounces of soda**, and was introduced in the 1960s, and increased the portion size of soda.



This plastic bottle holds **20 ounces of soda**, and was introduced in 1993. In the 1990s, this became a widely used container, about three times as large as the original bottle.



This **1 ounce** bag of chips is a small portion.



These **two** peanut butter cups are a medium portion.

Name

Date

You have just learned all about why it is important to not eat too much overly processed foods and not eat more than the recommended amount of empty calories.

On this sheet you will make an action plan to small-size-it when you do have overly processed foods. Remember you can also have whole foods instead of overly processed foods. When we eat whole food and small-size-it with overly processed foods, we are taking care of our own health and the health of the earth.

Sample:

My Action Plan:

The overly processed food I am going to eat smaller sizes of is packaged cupcakes.

The portion size I usually have is 3 cupcakes.

To small-size-it, I am going to reduce my portion size to 1 cupcake.

Use the table below to keep track of each time you small-size it.

Date	Day of week	I small-sized it!	Describe what made it work
10/27	Thurs	✓	I split a three-pack with two friends.
11/1	Tues	✓	I found a one-pack at the store by school.
11/3	Thurs	✓	I split the pack with friends again.
11/4	Fri	✓	I bought the one-pack.
11/7	Mon	✓	I like eating one cupcake, I feel less full.
11/9	Wed	✓	My friends only eat 1 cupcake now too.

My Action Plan:

The overly processed food I am going to eat smaller sizes of is .

The portion size I usually have is ,

To small-size-it, I am going to reduce my portion size to .

Use the table below to keep track of each time you small-size-it.

Date	Day of week	I small-sized it!	Describe what made it work

Lesson 4:

Navigate the Environment



Lesson 4: Navigate the Environment

— Getting Started —

Overview

Now that students have learned the Food Day Eating Goals in Lessons 1–3, this lesson examines the strong influence our food environment has on what we eat. The food environment is everything from food advertisements to what is available in the corner store and from the ice-cream truck driving down the street to the garden in our neighborhood. Students learn that much of what is available in our food environment does not support the Food Day Eating Goals of “Eat Real,” “Mostly Plants,” and “Not Too Much.” For example, vending machines are packed with sweetened beverages and snacks that are overly processed and have more ingredients than we can count. Yet, at the same time, there are growing opportunities for wholesome eating, such as fruit and vegetable stands, farmers’ markets, gardens at schools and in the community, and families taking time to cook and eat together. Every time we choose what to eat, we vote with our food dollars. Therefore, we need to take opportunities to navigate through the challenges of the environment and seek out opportunities to “Eat Real.” The lesson ends with students making a *Navigate the Environment* Action Plan.

Behavior Change Objective

As a result of this lesson, students will be able to navigate the food environment to “Eat Real,” “Mostly Plants,” and “Not Too Much.”

Learning Objectives

Students will be able to:

- describe the food environment in their community;
- list at least two opportunities in their food environment that can help them meet the Food Day goals;
- create an action plan that navigates through their environment to make a choice that meets the Food Day messages.

Background for Teachers

In developed countries like the United States, the food system makes processed food products available in an ever-widening array of choices. More than 50,000 food items are available in U.S. supermarkets, and about 9,000 new brand-name processed foods are introduced each year. In addition, many overly processed foods and sweetened beverages are available all around us — from vending machines to mini-markets at gas stations to corner stores.

Despite food seeming to be everywhere, access to health-promoting foods is more limited. Many people need transportation to reach a supermarket or a farmers’ market where fresh, whole foods such as fruits and vegetables are typically available. Often the places where students can pick up food on the way to school or after school have mostly overly processed food products and few wholesome foods.

The information that surrounds food is complex as well. Billions of dollars are spent on food advertising every year and much of this is for less-healthy foods. Additionally, the way the media presents food and nutrition information is sensationalized and confusing. It takes critical thinking skills to competently navigate the information environment.

Taken together, the food and information environments push us towards processed food products, sweetened beverages, and fast foods and pull us away from water, vegetables, fruits, and other whole foods.

We hope Lessons 1–3 convinced you and your students of the importance of the Food Day Eating Goals of “Eat Real,” “Mostly Plants,” and “Not Too Much.” To meet these goals, we need to navigate through the challenges of the food environment in order to find healthy choices. This way, we take control and make positive changes.

This lesson is about understanding our food environment and personally navigating through it. In the next, and final, lesson, you and your students will become advocates to create a better food environment for your community.

Lesson 4: Navigate the Environment

— Core Activity —



Aim

To discover the challenges and the opportunities in our food environment and create a plan for how to navigate through the environment to meet the Food Day Eating Goals.

Materials

- online map of area around your school
- chart paper and markers
- **Food Environment** cards
- **Seeking Out Real Food Action Plan** activity sheet

Before You Begin

- Get an online map, using google maps or another on-line map, of the area around your school. Be sure your map includes an area big enough to have several venues to obtain food. In an urban area, your map might be an area of about 10 blocks. In a rural area, your map might cover several miles.
- Print and make copies of the **Seeking Out Real Food Action Plan** activity sheet for each student.

Procedure

1. Review the Food Day Eating Goals

Review the Food Day Eating Goals of: “Eat Real,” “Mostly Plants,” and “Not Too Much.” Ask the students to share how they are doing on their action plans. Remind students that following these goals is important for their personal health and the health of the environment. Yet, making changes can be really challenging. Make a list of some of the challenges students have faced on chart paper. These challenges might include: taste (not liking vegetables), habits, being enticed by advertisements, ready availability to overly processed foods, and limited availability to whole plant foods.

2. Introduce the Food Environment

Write “Food Environment” in the middle of a sheet of chart paper. Ask students to share ideas about what they think food environment means. Accept all answers. Explain that the food environment is the actual food that is available to us (e.g., food we can get from grocery stores, vending machines, food stands/trucks, restaurants) and messages we get about food (e.g. advertisements we see on TV, billboards, and bus stops or a bumper sticker that says “support farmers, eat local”). Use the **Food Environment** cards to show positive and negative examples of our current food environment.

3. Investigate Your Community Food Environment

Project (if you can) and distribute the online map of the area around your school. Have the students look at the map and think about places they can get food. Draw and write onto the map to indicate these places. For each location, discuss what whole foods are available and what types of overly processed foods are available. If you have a school or community garden near your school, be sure this is also indicated on the map. Please note that you will use this map again in Lesson 5, when you come up with ideas you can do to advocate for positive changes in your environment. Therefore, it is important to make the map as complete as you can.

4. Highlight Opportunities to Meet the Food Day Goals

Look at the map and have students find places where they have opportunities to meet the Food Day Eating Goals (places with real food) and mark these places with a crayon, marker, or colored pencil on their map. Be sure to mark all venues that offer fresh fruits and vegetables (such as supermarkets, farmers’ markets, fruit stands, and corner stores) and restaurants that serve simple, basic wholesome meals, and gardens that are growing food. If you offer plant-based snacks and other whole foods in your classroom, mark your classroom. Also, school meals offer fruit at breakfast and fruits and vegetables at lunch. Explain that seeking out these positive opportunities is navigating through the food environment and not letting the challenges of the food environment get the best of us. Once you have the places marked on the map, write the names of each place on chart paper. Have students list some of the health-promoting options offered at each place. This list will help them make their action plans.

5. Create Navigating the Environment Action Plans

Distribute the **Seeking Out Real Food Action Plan** activity sheet. Have students look at the list of places you just created. Explain that in this action plan, they are going make a plan to seek out something on the list they typically do not eat. They can eat this health-promoting food instead of a highly processed food. For example, a student might skip eating at a fast food place and have a whole grain cereal topped with fresh fruit at home; skip the overly processed, packaged cupcake and stop by the farmers’ market to grab some freshly harvested fruit or a homemade muffin. This action plan could be a recommitment to their **Eat Real Action Plan** from Lesson 1, or something new to try. Remind students that change is hard and takes time and work. We create action plans that help us create a trigger that contributes to making positive changes.

Lesson 4: Navigate the Environment

— Digging Deeper —

Activities and Resources to Extend this Lesson

Help Reverse Childhood Obesity in a Generation

<http://www.letsmove.gov/>

Check out all the resources of the Let's Move Campaign.

Develop Snack Guidelines

<http://ps75pta.org/ps75/welcome-back/snack-guidelines.html>

A great way to navigate the environment is to create a classroom that models eating real. Use these guidelines from PS 75, the Emily Dickinson School in New York City, to help you develop your own snack guidelines.

Don't Buy It: Get Media Smart

<http://pbskids.org/dontbuyit/teachersguide.html>

No wonder we have such a hard time navigating the environment, children spend the majority of their days consuming mass media. On average, children spend four-and-a-half hours a day using television, video games, and computers. Yet children are not provided with the tools needed to evaluate and analyze the media messages they see. Teach your students to access, evaluate, analyze, and produce positive electric and print media.

Watch Jamie Oliver, Why We Need to Teach Every Child About Food

http://www.ted.com/talks/jamie_oliver.html

Learn why we need everyone to know about food to help us to decrease diet related diseases.

Watch What's Wrong With Our Food System

http://www.ted.com/talks/birke_baehr_what_s_wrong_with_our_food_system.html

Watch 11-year-old Birke Baehr tell us in a simple, practical way what is wrong with our food system and what we can do to implement change.

Rethink School Lunch

<http://www.ecoliteracy.org/downloads/rethinking-school-lunch-guide>

Rethinking School Lunch is a planning framework based on a positive vision: healthy children ready to learn, “food literate” graduates, invigorated local communities, sustainable agriculture, and a healthy environment. The Guide is a downloadable pdf that explains the rationale for reforming school food and explores the ten pathways that constitute this planning framework. Additional links on this site lead to essays, interviews, and other tools.

Get Some Big Ideas

<http://www.ecoliteracy.org/books/big-ideas-linking-food-culture-health-and-environment>

Big Ideas: Linking Food, Culture, Health, and the Environment, written by the Center for Ecoliteracy with a foreword by best-selling author Michael Pollan, provides a conceptual framework for integrated learning in these important areas in K–12 classrooms.

Start a School Salad Bar

<http://saladbars2schools.org/>

Are you a school that wants a salad bar? If so, this website is for you! Part of First Lady Michelle Obama's Let's Move!

Dedicate Monday to Health

<http://www.mondaycampaigns.org/>

Check out all the Monday Campaigns resources about food, physical activity, and much more. A great way to navigate the food environment.

Lesson 4: Navigate the Environment

Food Environment

— Cards —



Seeking out fresh, local produce from the farmers' market.



Seeking out a wide array of fresh produce from the supermarket.

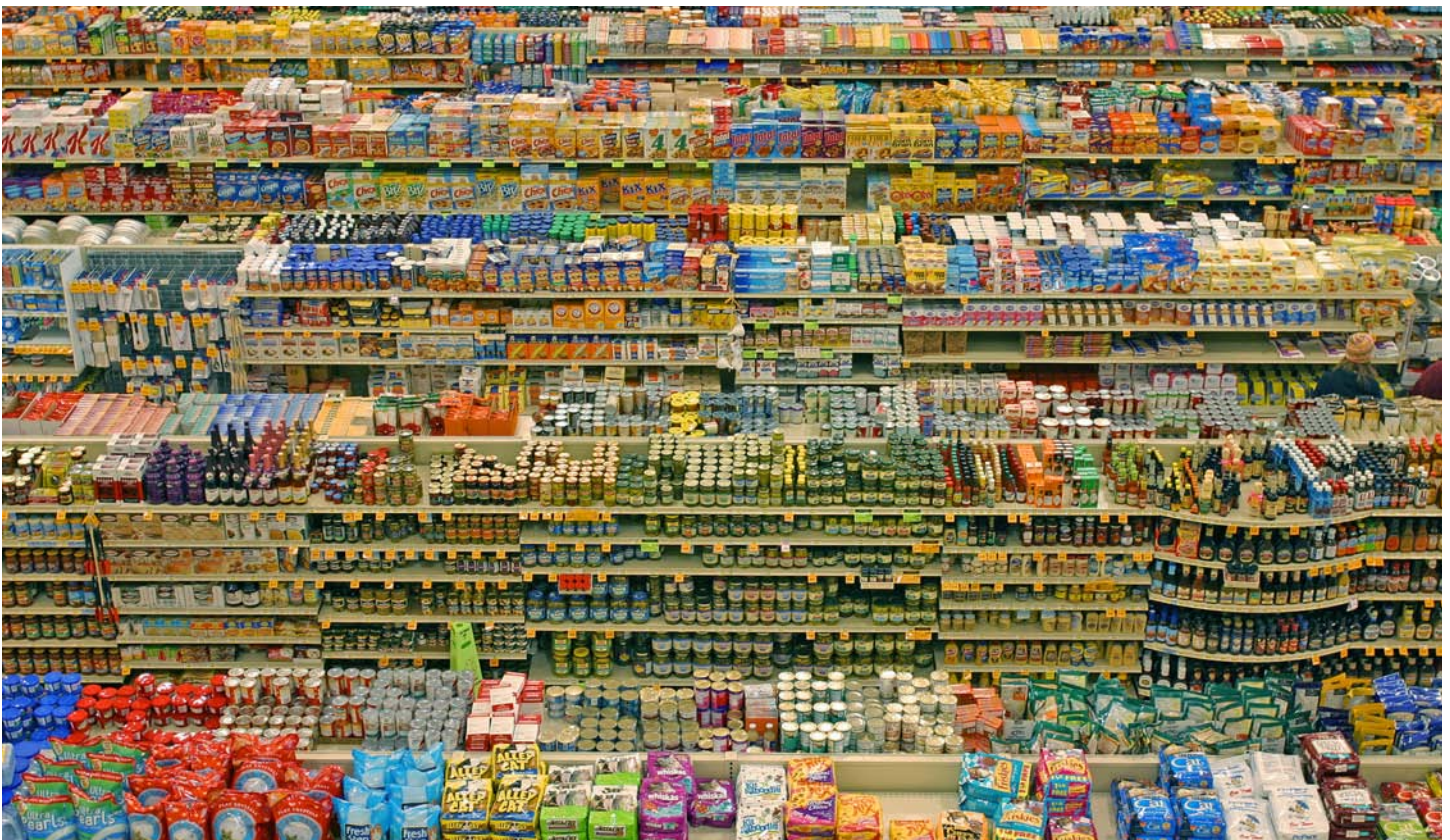
Lesson 4: Navigate the Environment

— Cards —

Food Environment



Avoiding the challenges of many fast food places in the environment.



Avoiding the challenges of many overly processed foods in the environment.

Lesson 4: Navigate the Environment Seeking Out Real Food Action Plan

— Activity Sheet —

Name _____

Date _____

You have just learned about both the challenges and the “Eat Real” food options in the food environment around your school. In this action plan, you are going to seek out the “Eat Real” foods that are available in your food environment. This will get you on your way to making choices that meet the Food Day Goals.

Remember, when you meet the Food Day Eating Goals to “Eat Real,” “Mostly Plants,” and “Not too Much,” you are taking care of your body and taking care of the earth. So, navigate through the challenges of the food environment to seek out real food today!

Sample:

My Action Plan:

To get real food, I am going to go to the fruit stand on first street and chestnut.
a place that offers real food

I am going to buy an orange.
real food

Time of day (check one):

- ☐ Before school
- ☐ During lunch
- ☒ After school
- ☐ In the evening

Days of the week (check as many as you like):

- ☐ Sunday
- ☒ Monday
- ☒ Tuesday
- ☒ Wednesday
- ☒ Thursday
- ☒ Friday
- ☐ Saturday

My Action Plan:

To get real food, I am going to go to _____.
a place that offers real food

I am going to buy _____.
real food

Time of day (check one):

- ☐ Before school
- ☐ During lunch
- ☐ After school
- ☐ In the evening

Days of the week (check as many as you like):

- ☐ Sunday
- ☐ Monday
- ☐ Tuesday
- ☐ Wednesday
- ☐ Thursday
- ☐ Friday
- ☐ Saturday

Lesson 5:

Be An Advocate



Lesson 5: Be an Advocate

— *Getting Started* —

Overview

In this final lesson, you and your students will come up with ideas and create a plan to make a change in the food environment that will make it easier for your community to meet the Food Day Eating Goals. Even though this is the last lesson in the Food Day series, it is really the launching of what we hope will turn into a short or long-term project where you, your students, and your entire school community become advocates for positive change. You and your students will brainstorm several ideas for community change plans. Then, you will create a list of steps it will take to carry out your plan and explain each step, with a timeline for when you will complete each step. You will also discuss how you will track your progress and what data you can collect to determine if your plan is successful at making it easier for your community to meet the Food Day Eating Goals.

Behavior Change Objective

As a result of this lesson, students will create and implement a plan that will make positive changes to the food environment in their community.

Learning Objectives

Students will be able to:

- create a list of potential ideas to change their community to make it easier to meet the Food Day Eating Goals;
- list and explain the steps needed to carry out an action plan for community change;
- (once the plan is implemented) evaluate how effective they were at changing their community food environment to make it easier to meet the Food Day Eating Goals.

Background for Teachers

“Never doubt that a small group of thoughtful, committed, citizens can change the world. Indeed, it is the only thing that ever has.” You may have seen this quote by Margaret Mead many times before, but it bears repeating here. We can all try to meet the Food Day Eating Goals by navigating through the challenging food environment. However, if we want long-term, sustained change that will lead to a meaningful decrease in type 2 diabetes, heart disease, and obesity, as well as decreases in greenhouse gases and pollution created by our food system, we need an environment that makes meeting the Food Day Eating Goals easy, affordable, and accessible to all.

This lesson is about you and your class working together to launch a project to become advocates to make positive changes to the food environment in your community. This project could be as small or large as makes sense for your situation. When students help to co-create their activities for learning, they engage in deeper ways than they do with teacher-led lessons. As you create and implement your food environment change project, think about how you can connect what students are doing with this project across the various topics you are teaching during this school year. You might use math skills to determine the extent of the changes you make and science skills to collect and implement data. Students can conduct research and read resources to learn what others have done before and can write stories, poems, and conduct interviews to document their experiences. Be sure to log on at www.foodday.org to post your project and check out various projects from around the country.

To motivate you to get started on your project, here is a quote from Ted Kennedy, “We know the future will outlast all of us, but I believe that all of us will live on in the future we make.”

Lesson 5: Be an Advocate

— Core Activity —



Aim

To plan a project that will change our community to make it easier for all to meet the Food Day Eating Goals.

Materials

- chart paper and markers
- *Advocacy Project Ideas* lesson resource
- *Food Environment Advocacy Project* activity sheet
- *Pledging to the Food Day Eating Goals* activity sheet

Before You Begin

- Discuss potential project sharing with other teachers from your school or community who are participating in the Food Day lessons.

Procedure

1. Check in on Navigating the Environment Action Plans

Have students share how they are doing with their *Seeking Out Real Food Action Plans*. Remind them that change is hard and takes time. Also, review the benefits of the Food Day Eating Goals for personal health and ecological sustainability. Also explain that as they navigate the environment, they are “voting” with their choices and paving the way to make whole, plant-based foods and small sizes of overly processed foods the norm, instead of the exception.

2. Explain Becoming an Advocate for Change

Ask students, “What if everyone started to seek out foods that meet the Food Day Eating Goals?” Discuss that soon real, whole foods would be more available because the supply would meet the demand. And, in time, overly processed foods would become less available. This would also change the social norm. Explain that we can move this process along by doing a project that changes the food environment to make whole foods, and especially plant-based whole foods more readily available. If you would like to share some examples of types of projects use the *Advocacy Project Ideas* lesson resource.

3. Brainstorm Ideas for Changing the Food Environment Projects

Create a list of potential ideas that your class could do as a project that would change the environment to make foods that meet the Food Day goals more readily accessible to everyone in your home, school, community. Also consider a projects that would change the information environment to create promotions for whole foods, especially plant-based foods, or materials that educate people on the health and ecological consequences of eating too much overly processed foods.

4. Choose One Project

Review the list of projects. Choose one of the projects to work on by using these criteria to think about the projects: exciting to the class, would have a real impact on the food environment, and feasible given the resources and time you have to devote to the project. If other classes in your school are doing projects as well, you might want to team up with another class or plan a complementary project.

5. Plan the Steps and Timeline for Your Project

Distribute the *Food Environment Advocacy Project* activity sheet. As a first step to your plan, think through the goal of your project. The goal answers the question, “If our project is really successful, how will the food environment be better?” A goal is important because this keeps you focused on what the project is all about and keeps you motivated to continue to work on the project even when you face obstacles. After you have a goal, create a list of the steps it will take to do your project, and create a timeline for completion of your project.

6. Determine How to Evaluate the Effectiveness of Your Project

Create a plan with your students for how you could determine if you are successful at meeting the goal for your project.

7. Pledge to Continue to Follow the Food Day Eating Goals

Distribute the *Pledging to the Food Day Eating Goals* activity sheet and have the students fill in what they will continue to do to “Eat Real,” “Mostly Plants,” “Not Too Much,” “Navigate the Environment,” and “Be an Advocate.” Have students review all their action plans as they complete this sheet.

Lesson 5: Be an Advocate

— Digging Deeper —

Activities and Resources to Extend this Lesson

Be sure to look at all the activities and resources from Lessons 1–4 for more ideas for advocacy projects.

Adopt a Corner Store

<http://www.nyc.gov/health/bodegas>

Many school children buy their snacks at small corner stores near their schools. Students can advocate that options that meet the Food Day Eating Goals are available and affordable. Also, we can make sure healthful options are prominently placed and less healthful options are harder to find. A good example of how this could be done is New York City's Adopt a Bodega program. Be sure to download the toolkit, it is loaded with lots of great details.

Feeding Minds, Fighting Hunger

<http://www.feedingminds.org/fmfh/home/en/>

Join the global initiative for creating greater awareness and understanding of hunger, malnutrition and food insecurity. Find resources that will inspire people of all ages to seek solutions to reduce hunger and malnutrition in their families, communities and in the world.

Advocate for a Garden in Your Community

<http://nashvilleurbanharvest.org/>

Think of your project as the first step toward a more whole, sustainable, and health-promoting food system for your community. Get inspired by the work of the Nashville Urban Harvest.

Build a Greenhouse

<http://nysunworks.org/thegreenhouseproject/the-greenhouse-project-at-ps333>

Be inspired by what a small group of parents were able to build at the Manhattan School for Children.

Advocate for a School Garden

<http://www.schoolgardenwizard.org/>

A school garden offers a wonderful, creative space in which children of all abilities can achieve something real that is valued by others. Use the School Garden Wizard developed by the United States Botanical Garden and the Chicago Botanical Garden to get started.

Foster Interest with the Fairchild Challenge

<http://www.fairchildgarden.org/education/fairchildchallenge/>

The Fairchild Challenge is an annual, standards-based, environmental education outreach program of Fairchild Tropical Botanic Garden in Miami, Florida. Read about their menu of challenge ideas to spark ideas of your own.

Join the Youth Food Movement

http://www.slowfoodusa.org/index.php/programs/details/youth_food_movement/

Slow Food's Youth Food Movement is a global alliance of young people working for good, clean, and fair food for all. The Youth Food Movement represents the first international effort to unify and galvanize the profound effect that young people are having on realigning local and regional food systems with principles of justice and sustainability.

Sponsor an Eat Real Festival

<http://eatrealfest.com/>

Have a festival open to your entire school community so everyone can experience eating real. Check out the website to be inspired by the Eat Real events in California.

Start a CSA at Your School

<http://tnscsa.wordpress.com/>

See what The Neighborhood School in New York City was able to do when they partnered with the Angel Family Farm.

Advocates at home

- **Home Inventory:** Make an inventory of foods that meet the Food Day Eating Goals (e.g., fruits and vegetables, whole grains, fat free versions of milk and dairy products) and a list of overly processed and unhealthful foods. Talk with their families about buying more foods that meet the Food Day Eating Goals.

Home Inventory	
Foods that Meet the Food Day Eating Goals	Overly Processed and Unhealthful Foods

- **Family Action Plans:** Create family action plans, similar to the personal action plans from the Food Day lessons to get their family to “Eat Real,” “Mostly Plants,” and “Not Too Much.”
- **Family Cooking Night:** Plan a day to go to a farmers’ market or supermarket to buy some fresh fruits and vegetables. Follow The Kids Cook Monday, and make Monday evening the night for the family to cook and eat together.

Advocates at school

- **School Water Fountain Inventory:** Make a list of working and non-working water fountains in the school. Write a letter, as a class, advocating for getting non-working water fountains fixed, stating reasons why it is important to have access to water in school.

School Water Fountain Inventory			
Location	Working?		Notes
	Yes	No	

- **Healthy Fundraisers:** Talk to school administrators and/or officers of the Parent Teacher Association (PTA) to get a list of school fundraisers. Research, as a class, ideas for healthful fundraisers and present these ideas to administrators and parents. Check out <http://www.cspinet.org/new/200702141.html> to help you get started.
- **Healthy Classroom Celebrations, Snacks, and Rewards:** Come up with a list of foods that meet the Food Day Eating Goals and create a classroom food policy. Send the policy home to families.
- **Wellness Policy Implementation:** Ask to see the school wellness policy. If some of the policies are not being implemented, create a plan for how to more fully enact school-food-environment policies.
- **Start a School Garden:** Find out what it would take to start a school garden and talk with parents and school administrators about steps to take. Check out <http://aggie-horticulture.tamu.edu/kindergarden/child/school/sintro.htm> to get started.

Advocates in the community

- **Community Water Fountains:** Inventory how many working vs. non-working water fountains are in their community and nearby parks. Write a class letter to the city or town mayor or other individuals responsible to get non-working water fountains fixed and/or to get new water fountains installed.
- **Increase Healthful Foods in Local Stores:** Go back to the map of the food environment that the students developed in Lesson 4. Have the class come up with a plan on how best they could ask the stores in their neighborhoods to stock more foods that meet the Food Day Eating Goals.

Lesson 5: Be an Advocate

Food Environment Advocacy Project

— Activity Sheet —

Name	Date
------	------

Your class really can make positive changes to the food environment in your community! Use this sheet to plan your project. On the line below, come up with a catchy title to name your project. Then plan out the steps you will do to complete the project and think about how you could determine if your project is successful.

(title of your project)

On the lines below, list the steps to complete your project.

<u>Steps</u>	<u>Completion Date</u>

Write in the box below what you could do to determine if your project was successful at changing the food environment in your community.

Name _____

Date _____



Lesson 1: Eat Real

To “Eat Real” in the future, I will eat _____

instead of _____.



Lesson 2: Mostly Plants

To eat “Mostly Plants” in the future, I will follow MyPlate at:

☐ breakfast ☐ lunch ☐ dinner



Lesson 3: Not Too Much

To follow the goal of “Not Too Much” overly processed food, I will

small-size _____.



Lesson 4: Navigate the Environment

To seek out real food, I will shop at _____

and buy _____.



Lesson 5: Be an Advocate

To be an advocate and change the food environment, my class will

_____.

Appendix A: Adapting the Food Day Curriculum for Early Elementary Grades



A key way to making the lessons successful for early elementary students is to provide students with clear and simple explanations of each of the Food Day Eating Goals, and to have students complete the action plans to implement the Food Day Eating Goals in their lives. Encourage students to talk about what they learn in these lessons with their families to foster adoption of the Food Day Eating Goals in students' homes. Also, try to make all the food that students eat in your classroom meet the Food Day Eating Goals.

In this appendix, we provide materials for adapting the lessons for younger grades. Before using this appendix, read the Overview on page 5 and each of the lessons. This appendix provides: tips for modifying these lessons for younger grades (pages 68–70) and replacement activity sheets (pages 71–77).

Tips for Modifying the Lessons for Elementary Grades



Lesson 1: Eat Real



Preparation: Read the *Eat Real* lesson plan on pages 9–10.

Teaching Tips:

- Introduce that “Eat Real” means eating mostly foods that come from plants and animals. To explain eating real, show the **Whole Food Photograph** cards (pages 12–16) as examples of real foods.
- Use the **Food Change** cards (pages 17–28). Show the students all of the whole foods (column 1) and point out that the tall green bars mean these foods are healthy for our bodies. You might want to skip the “changed a little” (column 2) foods. Show the students the “changed a lot” (column 3) foods and explain that these are no longer whole foods. The green bars are now short and the red bars are tall showing they are not very healthy.
- Use the replacement **Eat Real Action Plan** activity sheet (pages 71–72). Have students circle the whole foods they will eat in the future and use the second page if they want to draw more whole foods they will eat in the future.

Lesson 2: Mostly Plants



Preparation: Read the *Mostly Plants* lesson plan on pages 31–32.

Teaching Tips:

Note: we changed the order and simplified the activities for this younger audience.

- Start the lesson by asking students how they did on their **Eat Real Action Plan** activity sheet. Encourage students to keep trying to Eat Real.
- Introduce that “Mostly Plants” means eating meals and snacks that have plenty of vegetables, fruit, nuts, seeds, beans, whole grains and other foods from plants.
- Use the replacement **MyPlate** activity sheet (page 73) on which students can draw the lunch that they ate today or yesterday.
- Show students the **Plants We Eat** cards (pages 34–40) so they can see we eat roots, stems, leaves, flowers, fruits, and seeds. Skip the information about nutrition benefits.
- Use the **Choose My Plate** activity sheet (page 74) to explain that we can “help our body do everything we want to be able to do” when we follow the proportions of MyPlate. Have students draw a meal that follows the proportions of MyPlate. Help them draw realistic sizes to fill each of the food groups on their plate.



Lesson 3: Not Too Much



Preparation: Read the *Not Too Much* lesson plan on pages 44–45.

Teaching Tips:

- Ask students how it went when they shared their *Choose MyPlate* activity sheet with their families.
- Introduce that “Not Too Much” means that when we do have “changed a lot” foods (from lesson 1) — especially foods such as chips, candy, cookies, cupcakes, and other baked goods — that we want to have “not too much” or small portions. Having only small portions of these foods will help us keep our bodies healthy and will also be good for the natural environment.
- Describe the size of small-sized snacks:
 - Chips: 1 ounce of chips (small bag)
 - Candy: a small chocolate bar or a lollypop
 - Cookies and other baked goods: 1 or 2 cookies or a small muffin, brownie, or piece of cake.
- Discuss that when we have small sizes, we can eat them slowly and focus on eating (instead of doing something else such as watch television when we eat). When we focus on eating, we can enjoy every bite.
- Ask students to brainstorm a list of reasons for why to small-size-it.
- Skip procedure #3, as understanding empty calories, and the fat and sugar inside of foods is hard for young students.
- Have students draw a self-portrait of themselves doing something they want to be good at. This could be a sport, dancing, a subject in school, a game, or doing chores at home. Explain that following the Food Day Eating Goals of “Eat Real,” “Mostly Plants,” and “Not Too Much” will help them be good at what they want to be able to do. If possible post these self-portraits in the classroom or on a bulletin board and use them as motivation for why it is important to follow all of the Food Day Eating Goals.
- Use the replacement *Small-Size-It Action Plan* activity sheet (page 75) to have students plan out what they will have as snacks for the week. Challenge the students to have whole foods at least three days and small portions of overly processed foods no more than two days.



Lesson 4: Navigate the Environment



Preparation: Read the *Navigate the Environment* lesson plan on pages 54–55.

Teaching Tips:

- Review the Food Day Eating Goals of “Eat Real,” “Mostly Plants,” and “Not Too Much.” Ask students how they are doing on their action plans. Use the blank activity sheets from Lessons 1–3 as props.
- Introduce that “Navigate the Environment” means to seek out and choose more whole foods at school, at home and from stores, gardens, and farms in their neighborhood.
- Hold up each of the *Navigate the Environment* cards (pages 57–58). First, ask the students where they can find fruits and vegetables (as pictured in the first two cards) then use the fast food and supermarket cards to show that some foods that are in our environment are not best to have all the time. Discuss different places where you can get whole foods in your neighborhood (use a map if appropriate).
- After the discussion, have students complete the *Seeking Out Real Food Action Plan* activity sheet (page 76). First, list places to get whole foods. Second, list foods available at each place. Third, have students circle all the foods they will eat in the next week.

Lesson 5: Be an Advocate



Preparation: Read the *Be an Advocate* lesson plan on pages 61–62.

Teaching Tips:

- Ask students how they are doing on their *Seeking Out Real Food Action Plan* activity sheet.
- Create posters or do a performance. For young children, a great way to change the environment is to teach others. Have your student make posters or plan and do a performance that they can use to teach others at school and at home about the Food Day Eating Goals.
- Conduct an advocacy project. If you think your class can conduct an additional advocacy project, use the *Food Environment Advocacy Project* activity sheet (page 65) to plan their project.
- Use the *Pledging to the Food Day Eating Goals* activity sheet (page 77) for students to decide how they will keep practicing the Food Day Eating Goals. Encourage students to show this sheet to their families so they can advocate for change in their families as well.

Lesson 1: Eat Real

— Activity Sheet —

Eat Real Action Plan

Early Elementary Students

Name _____

Date _____

Eating real means eating whole foods from plants and animals. When you “Eat Real,” you are helping your body be the best it can be. You will be able to do what you want to do such as run, play, and do well in school. When you “Eat Real,” you are also taking care of the earth.

Try to “Eat Real!” Look at the pictures below and circle the foods you will eat when they are served at home or at school. In the last box, draw another whole food you will eat.



apple



broccoli



vegetable sticks



brown rice



orange



grilled chicken



corn on the cob



fat free milk



Lesson 1: Eat Real

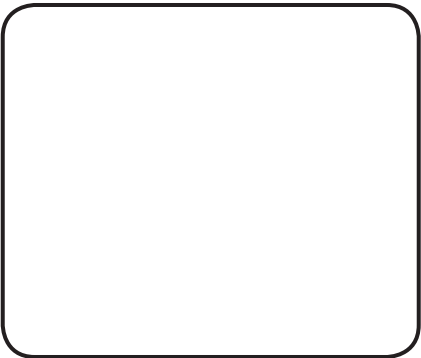
— Activity Sheet —

Eat Real Action Plan

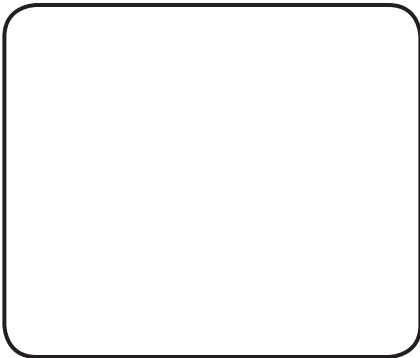
Early Elementary Students

Name	Date
------	------

Use this page if you want to draw in more whole foods that you will eat in the future.

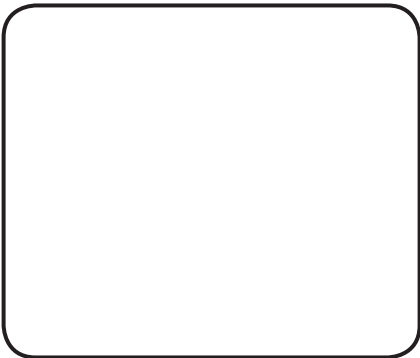


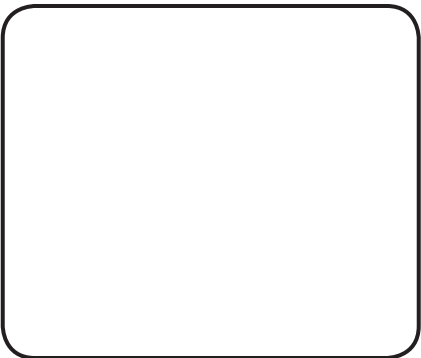


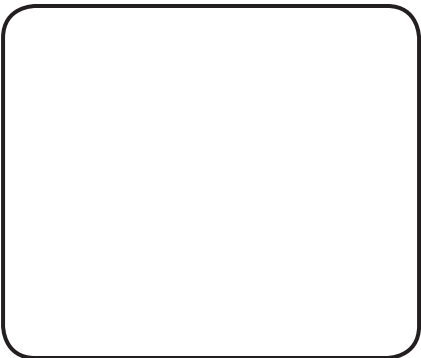


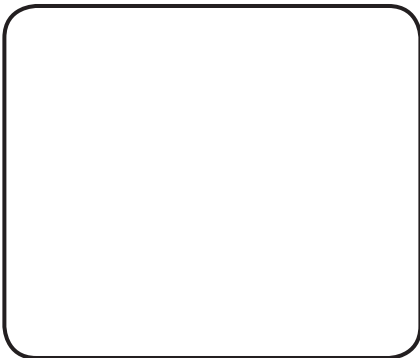












Lesson 2: Mostly Plants

— Activity Sheet —

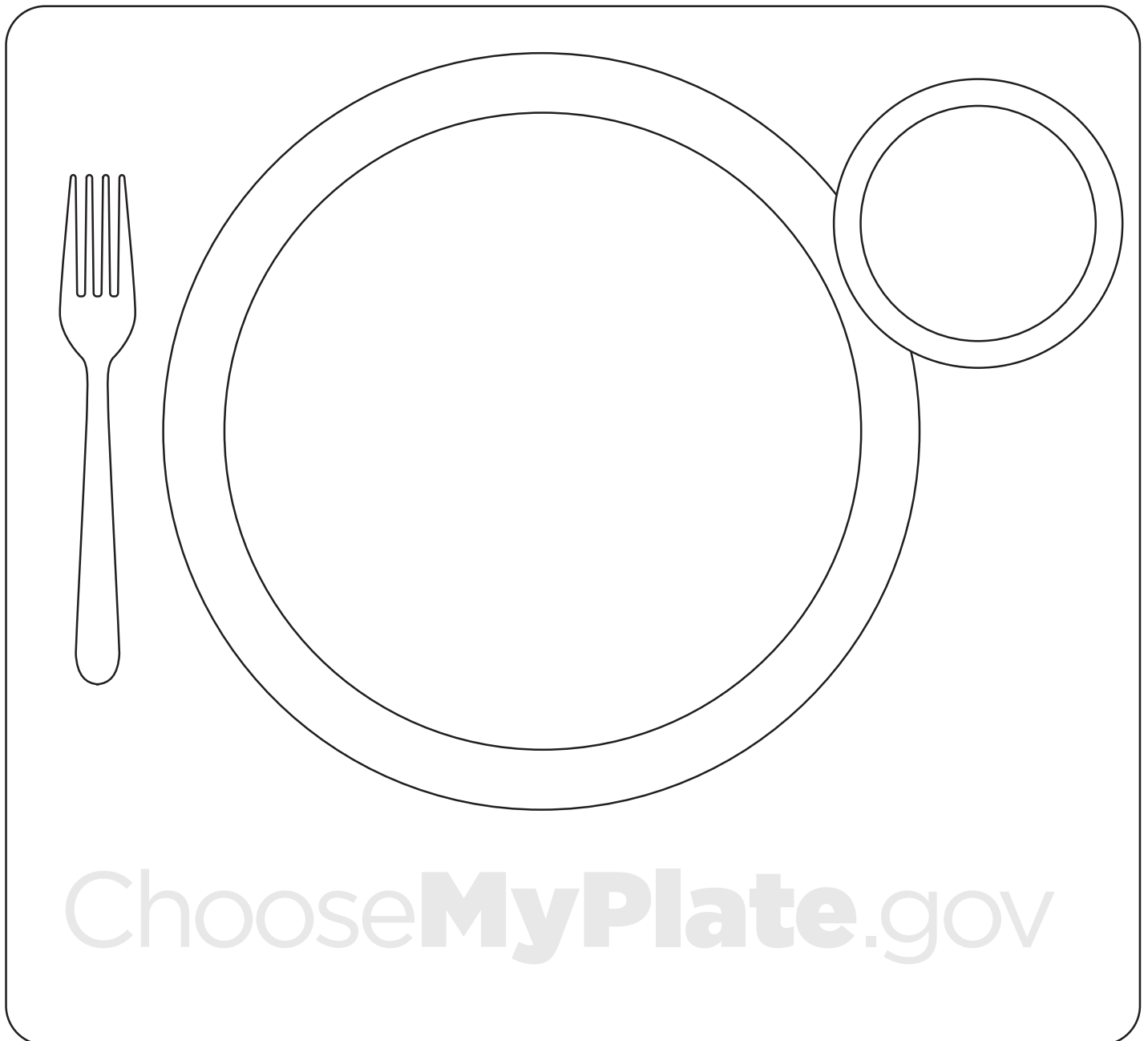
MyPlate

Early Elementary Students

Name _____

Date _____

Below is a picture of a plate and a cup. Draw what you ate and drank for lunch yesterday or today. Think about how much space each item took on the plate as you draw.



Lesson 2: Mostly Plants

— Activity Sheet —

Choose MyPlate

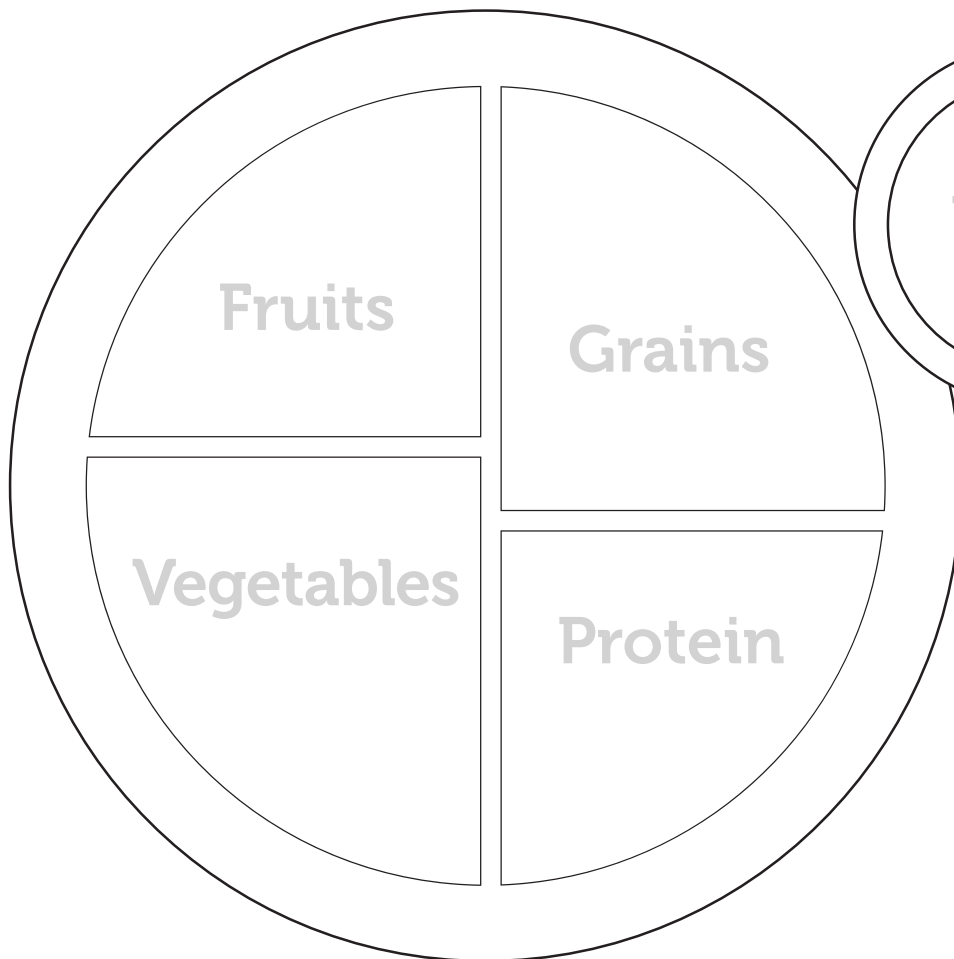
Early Elementary Students

Name _____

Date _____

This is MyPlate!

On the plate below, draw a meal that you would like to eat that follows the amounts shown on MyPlate. Try to eat a MyPlate lunch at school for the next three days.



Choose**MyPlate**.gov

Name

Date

When we choose foods for snacks, we want to “Eat Real” by choosing whole foods most of the time. Choose a whole food, such as fruit, vegetables, or whole wheat bread with peanut butter, at least three days and a small portion of chips, candy, or cookies no more than two days. When we do have overly processed foods such as chips, candy or cookies we want to have a **small portion**. In the rectangles below, draw a picture and write the name of the snack you will have each day of the week.

My after-school snacks:

Monday

Tuesday

Wednesday

Thursday

Friday

Lesson 4: Navigate the Environment Seeking Out Real Food Action Plan

— Activity Sheet —

Early Elementary Students

Name	Date
------	------

There are many places we get food, such as our school cafeteria, our home, and stores, gardens, or farms in our neighborhood. List some places you get food below and then list some whole foods you can get at each place. After you make your list, go back through and circle all the foods you will eat in the next week.

Places I get food:

Whole foods I can get at that place:

1.	
2.	
3.	
4.	

Name _____

Date _____



Lesson 1: Eat Real

To “Eat Real” in the future, I will eat more whole foods:

☐ everyday ☐ some days of the week ☐ a few days a week



Lesson 2: Mostly Plants

To eat “Mostly Plants,” I will follow MyPlate at (check all that apply):

☐ breakfast ☐ lunch ☐ dinner ☐ snacks



Lesson 3: Not Too Much

When I eat snacks such as chips, candy, and cookies, I will have small

portions: ☐ all the time ☐ sometimes ☐ once in a while



Lesson 4: Navigate the Environment

At school, home, and from stores, I will try to ask for more whole foods such as fruits, vegetables, and whole grains:

☐ all the time ☐ sometimes ☐ once in a while



Lesson 5: Be an Advocate

To be an advocate and change the food environment, my class will

_____.

Appendix B: Adapting the Food Day Curriculum for High Schools



High school students can think more deeply about the issues discussed in the Food Day School Curriculum. These lessons can be taught basically the same as the original curriculum, with students being better able to engage in meaningful conversations about the content of the lessons. They will also have more choice about what they eat and can take control to make changes. Additionally, high school students are able to become active and involved advocates for change in their homes, schools, and communities.

In this appendix, we provide materials for adapting the lessons for high school students. Before using this appendix, read the Overview on page 5 and each of the lessons. This appendix provides tips for modifying the lessons for high school students (pages 79–81) and replacement activity sheets (pages 82–88).

Tips for Modifying the Lessons for High Schools



Lesson 1: Eat Real



Preparation: Read the *Eat Real* lesson plan on pages 9–10.

Teaching Tips:

- Conduct the lesson plan as written.
- Use the replacement *Eat Real Action Plan* activity sheet (page 82). Point out the tracker on the bottom which will allow students to track when they were able to successfully have a whole food instead of a highly processed food. Research has found that when we assess our own behavior and track our progress, we are more likely to be successful at making changes.
- If you have time to extend the lesson, watch the films *Fresh* or *Nourish*; see page 11.

Lesson 2: Mostly Plants



Preparation: Read the *Mostly Plants* lesson plan on pages 31–32.

Teaching Tips:

- Review their *Eat Real Action Plan* activity sheet from Lesson 1, ask them to share how they did on choosing a whole food instead of an overly processed food and to discuss what they wrote on their tracker.
- Conduct the lesson plan as written.
- If you are teaching this lesson in a science class, you could add more about photosynthesis and the vital role plants play in our food web. Choose different foods and trace them back to plants to show students that all foods come from plants.
- Use the replacement *MyPlate* and *Choose MyPlate* activity sheets (pages 83–85). The *Choose MyPlate* activity sheet provides a table for students to track how often they are able to eat “Mostly Plants” through following MyPlate at meals and snacks.



Lesson 3: Not Too Much



Preparation: Read the *Not Too Much* lesson plan on pages 44–45.

Teaching Tips:

- Ask students to get out their *Choose MyPlate* activity sheet and have them discuss what they recorded on their tracker. Remind students that making change takes time and can be hard. If students are having a hard time, encourage them to choose one aspect of their meals to work on changing, such as adding more vegetables OR having smaller portions of meat.
- Follow the lesson plan as written.
- Discuss empty calories. You can read about empty calories at <http://www.choosemyplate.gov/foodgroups/emptycalories.html> and click on “How Many Can I have?” Please note that the amounts are higher (160 calories for girls and 265 calories for boys) than what is stated in the lesson plan, which is for upper elementary and middle school students.
- Students may become very interested in how much added fat and sugar are in different foods they eat. Students can look up nutrition information online or bring in empty packages of food. Use the nutrition label to get the number of grams of fat and sugar in various foods. Remind students to look at the serving size on the package (often we eat more than one serving of foods as listed). To convert grams to teaspoons note: there are about 4 grams of sugar in a teaspoon and about 5 grams of fat in a teaspoon.
- Use the replacement *Small-Size-It Action Plan* activity sheet (page 86). Encourage students to work together to determine how they can small-size overly processed snacks, or replace overly processed foods with real foods.
- If you have time to extend this lesson, consider watching the films *Fast Food Nation* or *Supersize Me* (see page 46).

Tips for Modifying the Lessons for High Schools



Lesson 4: Navigate the Environment



Preparation: Read the *Navigate the Environment* lesson plan on pages 54–55.

Teaching Tips:

- Review the Food Day Eating Goals of “Eat Real,” “Mostly Plants,” and “Not Too Much.” Ask students how they are doing on their action plans. Use the blank activity sheets from lessons 1–3 as props.
- Follow the lesson plan as written. You might give the students a map of the neighborhood the day before this lesson so they can write in places to get food and be able to refer to their maps during the lesson.
- Use the replacement *Seeking Out Real Food Action Plan* activity sheet (page 87). Convince students that seeking out real food is healthy for their bodies, healthy for the earth, and makes them an independent person. Resisting the foods advertiser’s push on teens is a form of positive rebellion.

Lesson 5: Be an Advocate



Preparation: Read the *Be an Advocate* lesson plan on pages 61–62.

Teaching Tips:

- Ask students how they are doing on their *Seeking Out Real Food Action Plan* activity sheet. Remind students that seeking out real food can be challenging as overly processed foods are readily available and inexpensive. Real food is worth the effort!
- Follow the lesson plan as written.
- Use the replacement *Pledging to the Food Day Eating Goals* activity sheet (page 88).
- Try to create an advocacy project that you can follow through with and can make meaningful positive change in your community. Review the Digging Deeper pages from all the lessons (pages 11, 33, 46, 56, 63) for ideas for advocacy projects.

Name

Date

You have just learned all about why it is important to “Eat Real.” Eating real means eating whole foods from plants and animals, and not eating too much overly processed foods. When you “Eat Real,” you are helping your body be the best it can be. Additionally, this helps the natural environment by using less energy and fewer resources.

In the Food Day lessons, you will make action plans that will get you on your way to following the Food Day Eating Goals. This action plan is like a trigger to remind you to “Eat Real.”

Sample:

My Action Plan:

I am going to eat grilled chicken breast instead of chicken nuggets .

whole food

overly processed food

Time of day (check one):

☐ At breakfast

☐ In the morning

☐ At lunch

☐ In the afternoon

☒ At dinner

☐ In the evening

Days of the week (check as many as you like):

☐ Sunday

☐ Monday

☐ Tuesday

☒ Wednesday

☐ Thursday

☐ Friday

☒ Saturday

My Action Plan:

I am going to eat _____ instead of _____ .

whole food

overly processed food

Time of day (check one):

- ☐ At breakfast
- ☐ In the morning
- ☐ At lunch
- ☐ In the afternoon
- ☐ At dinner
- ☐ In the evening

Days of the week (check as many as you like):

- ☐ Sunday
- ☐ Monday
- ☐ Tuesday
- ☐ Wednesday
- ☐ Thursday
- ☐ Friday
- ☐ Saturday

Use the table below to keep track of each time you eat real — eat a whole food instead of an overly processed food.

Date	Day of week	I ate real!	Describe what made it work.

Lesson 2: Mostly Plants

— Activity Sheet —

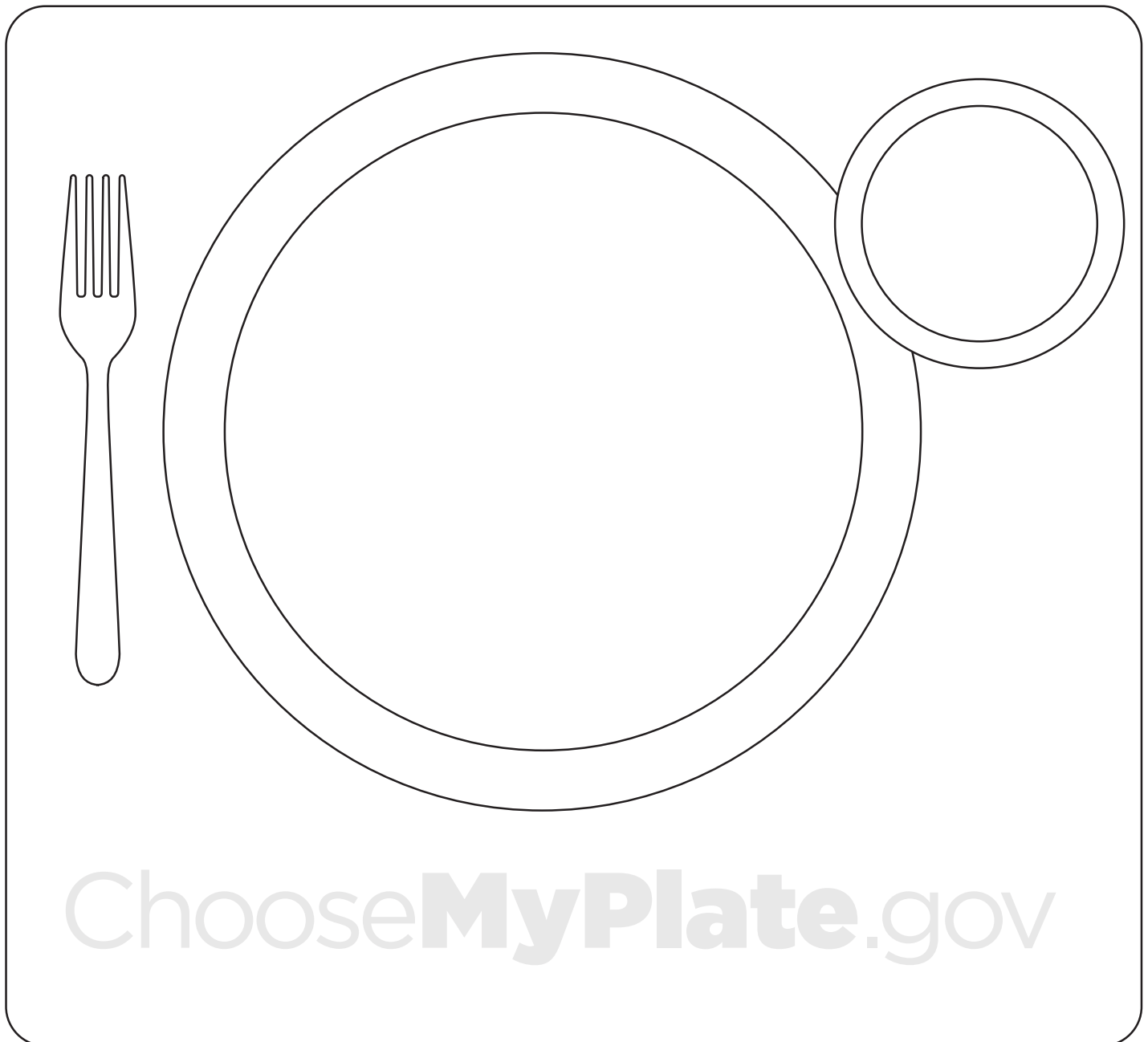
MyPlate

High School Students

Name _____

Date _____

Below is a picture of a plate and a cup. Draw what you ate and drank for dinner yesterday. Think about how much space each item took on the plate and make your drawing as accurate as possible.



Lesson 2: Mostly Plants

— Activity Sheet —

Choose MyPlate

High School Students

Name _____

Date _____

This is MyPlate! When you follow MyPlate, at least three-quarters of your plate is made up of foods from plants. The **amount** recommended for each food group is shown by the size of the sections. Be creative and fill each section with different fresh, whole foods. You might fill the Fruit section with apple slices, a peach, or some blueberries. Fill the Vegetables section with carrots, string beans, zucchini, or other vegetables. Fill your Grains section with whole-grain bread, pasta, or brown rice. Your Protein section can consist of animal-based proteins such as lean chicken, fish, or beef, or plant-based proteins such as beans, tofu, nuts, or seeds. For the Dairy section, you can have a glass of fat free milk, lowfat yogurt, or a piece of cheese.

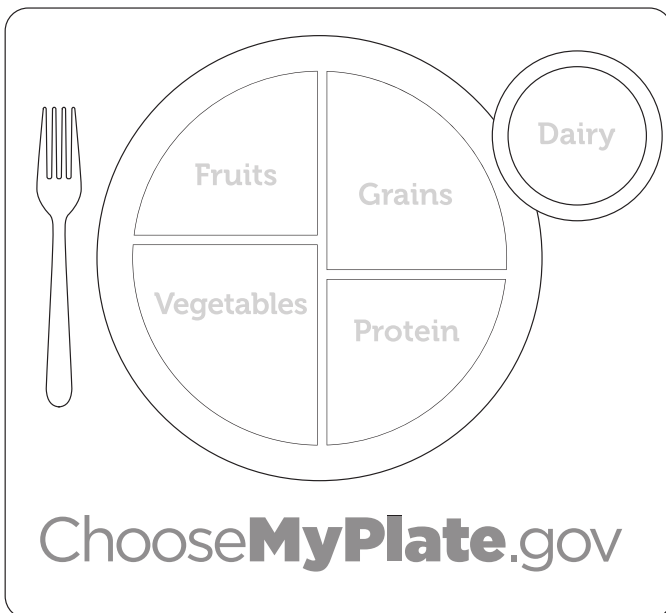


On the plate on the left, draw a breakfast or snack that you would like to eat that has at least two foods from plants and at least three of the five MyPlate food groups.

On the plate on the right, draw a lunch or dinner that you would like to eat that fills all the sections of MyPlate.

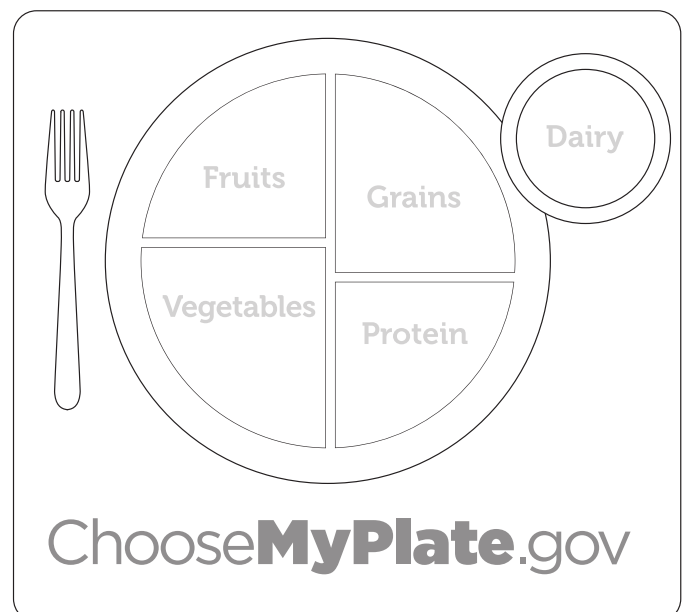
Draw a breakfast or snack you would like to eat:

- Have at least three of the five food groups in your snack or breakfast.
- Have at least two items that are from plants.



Draw a lunch or dinner you would like to eat:

- Fill all the sections of MyPlate.
- Consider having a whole grain and a plant-based protein source.
- Try to have lowfat or fat free dairy products.



Lesson 2: Mostly Plants

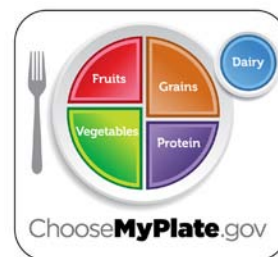
— Activity Sheet —

Choose MyPlate

High School Students

Name	Date
------	------

Over the next week, try to adapt the proportions of your foods to make it closer to MyPlate. Some people might need to have more vegetables, others might need to have smaller portions of proteins, and still others might need to try to have whole grains such as brown rice instead of refined grains such as white bread. Think about what changes will move you toward MyPlate. Use the table below to track your changes. Remember that changing what you eat is challenging. But, it is worth the effort! Your body will be healthier now and into the future, and eating more whole, plant-based foods is good for the natural environment. Keep trying even if at first you don't succeed. Make small changes, such as adding just a bit more fruits or vegetables. Small changes can boost your confidence, keep you going, and together, add up to big changes.



Use the table below to keep track of the changes that you make to move toward MyPlate.

Date	Day of week	Meal or snack?	Describe the change you made	What made it work?
		<input type="checkbox"/> Breakfast <input type="checkbox"/> Lunch <input type="checkbox"/> Dinner <input type="checkbox"/> Snack		
		<input type="checkbox"/> Breakfast <input type="checkbox"/> Lunch <input type="checkbox"/> Dinner <input type="checkbox"/> Snack		
		<input type="checkbox"/> Breakfast <input type="checkbox"/> Lunch <input type="checkbox"/> Dinner <input type="checkbox"/> Snack		
		<input type="checkbox"/> Breakfast <input type="checkbox"/> Lunch <input type="checkbox"/> Dinner <input type="checkbox"/> Snack		
		<input type="checkbox"/> Breakfast <input type="checkbox"/> Lunch <input type="checkbox"/> Dinner <input type="checkbox"/> Snack		
		<input type="checkbox"/> Breakfast <input type="checkbox"/> Lunch <input type="checkbox"/> Dinner <input type="checkbox"/> Snack		
		<input type="checkbox"/> Breakfast <input type="checkbox"/> Lunch <input type="checkbox"/> Dinner <input type="checkbox"/> Snack		
		<input type="checkbox"/> Breakfast <input type="checkbox"/> Lunch <input type="checkbox"/> Dinner <input type="checkbox"/> Snack		

Name	Date
------	------

You have just learned all about why it is important to not eat too much overly processed foods and not eat more than the recommended amount of empty calories.

On this sheet you will make an action plan to small-size-it when you do have overly processed foods. Remember you can also have whole foods instead of overly processed foods. When we eat whole food and small-size-it with overly processed foods, we are taking care of our own health and the health of the earth.

Sample:

My Action Plan:

The overly processed food I am going to eat smaller sizes of is **packaged cupcakes**.

The portion size I usually have is **3 cupcakes**,

To small-size-it, I am going to reduce my portion size to **1 cupcake**.

My Action Plan:

The overly processed food I am going to eat smaller sizes of is _____.

The portion size I usually have is _____,

To small-size-it, I am going to reduce my portion size to _____.

Use the table below to keep track of each time you small-size-it.

Date	Day of week	I small-sized it!	Describe what made it work

Lesson 4: Navigate the Environment

Seeking Out Real Food Action Plan

— Activity Sheet —

High School Students

Name	Date
------	------

You have just learned about both the challenges and the “Eat Real” food options in the food environment around your school. In this action plan, you are going to seek out the “Eat Real” foods that are available in your food environment. This will get you on your way to making choices that meet the Food Day Goals.

Remember, when you meet the Food Day Eating Goals to “Eat Real,” “Mostly Plants”, and “Not too Much,” you are taking care of your body and taking care of the earth. So, navigate through the challenges of the food environment to seek out real food today!

My Action Plan:

To get real food, I am going to go to _____
a place that offers real food

I am going to buy _____
real food

Time of day (check one):

- ☐ Before school
- ☐ During lunch
- ☐ After school
- ☐ In the evening
- ☐ Week-end

Days of the week (check as many as you like):

- ☐ Sunday
- ☐ Monday
- ☐ Tuesday
- ☐ Wednesday
- ☐ Thursday
- ☐ Friday
- ☐ Saturday

Many people describe navigating through the environment as making them feel confident, independent, and like a stronger person. Describe how it felt for you to navigate through the environment and “Eat Real.”

Name _____

Date _____



Lesson 1: Eat Real

To “Eat Real” in the future, I will eat _____
instead of _____.



Lesson 2: Mostly Plants

To eat “Mostly Plants” in the future, I will follow MyPlate at:

☐ breakfast ☐ lunch ☐ dinner



Lesson 3: Not Too Much

To follow the goal of “Not Too Much” overly processed food, I will
small-size _____.



Lesson 4: Navigate the Environment

To seek out real food, I will shop at _____
and buy _____.



Lesson 5: Be an Advocate

To be an advocate and change the food environment, my class will
_____.

Define what “Eat Real” means to you and describe why it is important for you to keep “Eating Real.”
