



Lesson 4

Identify Opportunities
and Make a Farm to
School Plan



FARM TO SCHOOL

YOUTH LEADERSHIP CURRICULUM

Lesson 4
Farm to School Youth Leadership Curriculum: 11th & 12 Grades

Authors:

Erin McKee VanSlooten, Institute for Agriculture and Trade Policy (IATP) and JoAnne Berkenkamp with Natasha Mortenson, Agriculture Education Instructor and FFA Advisor, Morris Area High School and Vanessa Herald, Great Lakes Region Farm to School Coordinator, University of Wisconsin – Madison’s Center for Integrated Agricultural Systems

This curriculum was published with the support of the Center for Prevention at Blue Cross and Blue Shield of Minnesota, the John P. and Eleanor R. Yackel Foundation, the Minnesota Agricultural Education Leadership Council and the Minnesota Department of Agriculture.

Published March 2014

The Institute for Agriculture and Trade Policy works locally and globally at the intersection of policy and practice to ensure fair and sustainable food, farm and trade systems.

More at iatp.org

FARM TO SCHOOL YOUTH LEADERSHIP CURRICULUM

The high school level Farm to School Youth Leadership Curriculum is designed to empower youth, teach them about their local food system, engage them in meaningful, hands-on learning activities that also strengthen their school's Farm to School program and link them directly with farmers in their community. Implementation of the curriculum in a high school setting simultaneously gives students ownership and commitment to their school's Farm to School program, while reducing the amount of legwork and research required of teachers or food service staff to establish or expand a farm to school program.

The curriculum is comprised of 6 Lessons, each containing a lesson summary, a list of lesson activities, lesson outcomes, facilitator preparation notes, a materials and equipment list, additional resources, detailed facilitator descriptions of core activities, additional recommended activities, a chart of the lesson's alignment to national and Minnesota academic standards and worksheets and handouts for students. The lessons can be taught consecutively over a semester or facilitators can choose to use single lessons or activities as a complement to their classes. Activities are interdisciplinary, and may fit into classes focused on Agriculture, Family and Consumer Sciences, Social Studies, Economics, Health, Science or other subjects. The curriculum was developed with the 11th and 12th grade high school classroom setting in mind, but could also be used by educators teaching about Farm to School or local foods systems in other settings. Occasional connections with external farmers or food service professionals deeply enrich the lessons; when these connections are recommended, this is indicated in the introductory notes to give the facilitator time to prepare.

Farm to School programs link children to nearby small and mid-size farms and ranches that produce fresh, healthy and minimally processed foods that are served at their schools. Aimed at educating children about where and how their food is grown, strengthening local economies and supporting healthy eating habits, the Farm to School movement is rapidly growing.

Farm to School advances the following goals:

- Promote children's health by providing fresh, healthy and minimally processed foods in schools and supporting the development of healthy eating habits
- Enhance children's "food literacy" by familiarizing them with foods grown nearby, teaching them how and where their food is grown, building knowledge about how to prepare healthy foods, and educating them about the health, nutrition, social and environmental impacts of food choices
- Strengthen local economies by expanding markets for small and mid-size agricultural producers and food entrepreneurs whose products have typically been unavailable in school meal programs
- Build vibrant locally oriented food systems by fostering positive relationships and increase understanding of local food systems among children, farmers, parents, educators and school districts, healthcare professionals, and other community members
- Advance environmental stewardship, where practicable, by supporting more sustainable food production methods, reducing reliance on long distance transportation, and reducing food waste

We hope that this curriculum will be useful in engaging students to start or expand a Farm to School program, and we welcome feedback and stories of how it works for you!

LESSON SUMMARY

In this lesson, students will apply what they have learned about Farm to School principles to their own school environment to identify Farm to School foods that could potentially be incorporated into school meals given your school's kitchen facilities, the availability of locally grown foods and other factors. In Lesson 5, students will continue to use this information to connect with farmers to identify nearby sources of these priority foods.

LESSON ACTIVITIES

1. What's on the Menu?
2. Select a Local Food Recipe Appropriate for Your School
3. Presentations to School Food Service Staff, School Administrators, Parents or Other Students and Student Leadership Engagement

LESSON OBJECTIVES:

Students will be able to:

1. Identify foods that can be purchased locally
2. Select a Local Food Recipe Appropriate for Your School
3. Presentations to School Food Service Staff, School Administrators, Parents or Other Students and Student Leadership Engagement

MATERIALS AND EQUIPMENT

- Copies of Worksheets for all students:
 - Worksheet 4-1: Venn Diagram of Locally Grown Foods and School Meal Foods
 - Worksheet 4-2: Priority Local Food Item and Recipe Suggestions
- Multiple copies of four or five different months of your school's lunch menus.
- Your school or district's Wellness Policy.

ADDITIONAL RESOURCES

■ “GETTING STARTED: WISCONSIN FARM TO SCHOOL TOOLKIT”

- <http://www.cias.wisc.edu/toolkits/>

The opening chapter of this toolkit for Food School Nutrition Directors outlines the community, school and administrative basics to start purchasing local food. (website and pdf)

■ “WSDA WASHINGTON STATE FARM TO SCHOOL TOOLKIT”

- <http://www.wafarmtoschool.org/>

Through stories, photos, templates, documents and more, this toolkit highlights Farm to School and school garden successes throughout the state and draws together best practices and Farm to School tips.

■ “FARM TO SCHOOL DISTRIBUTION SYSTEMS: CASE STUDIES FROM DIFFERENT STATES”

- <http://www.okfarmtoschool.com/resources/fts-distro-foodsafetymanual/section1-FTS-distribution-systems.pdf>

This chapter from the Oklahoma Farm to School Toolkit provides detailed case studies of local food purchasing from a variety of different schools. (pdf)

■ “DISTRIBUTION MODELS FOR FARM TO SCHOOL”

- www.foodsecurity.org/f2s_distribution_method.pdf

This publication from the Community Food Security Coalition outlines four major methods of distribution for Farm to School. (pdf)

■ LOCAL FOOD RECIPE GUIDES

- Fresh from the Farm: The Massachusetts Farm to School Cookbook

- http://www.farmtoschool.org/files/publications_134.pdf

- Kidchen Expeditions Cookbook

- <http://www.kidchenexpedition.com/cookbook/>

- Minnesota Farm to School Recipes

- <http://www.extension.umn.edu/farm-to-school/toolkit/using-food/>

■ “FARM TO SCHOOL EVALUATION TOOLKIT”

- www.farmtoschool.org/files/resources_644.pdf

This toolkit provides templates for evaluating the impact of Farm to School programs on schools, students, food service and others and is produced by the National Farm to School Network and the University of North Carolina at Chapel Hill. (pdf)

LESSON INITIATION

Ask students if they have ever used a recipe to make their own food, or if they have a favorite recipe. What are some things that all recipes have in common? Have students ever tried to cook without a recipe? Could they imagine cooking a meal for a whole school?

LESSON INTRODUCTION

This lesson will involve students taking a leadership role in exploring how your school's Farm to School program could be started or expanded and going through the process of meeting logistical requirements for school meals. Optimally, students' research would inform decisions made by school foodservice personnel about what foods to include in their menus that come from nearby producers.

If that isn't possible at your school, students can still complete the process as a learning experience. Keep in mind: Even for schools that are able to incorporate some of the students' research into school meal planning, the timeline for implementing new menu ideas may be longer than the length of a class semester.

ACTIVITY 1: IDENTIFY OPPORTUNITIES TO SOURCE LOCALLY GROWN FOODS (90 minutes)

Materials:

A few months of school menus

Open this activity by reviewing Lesson 1 and Lesson 2 to refresh students about Farm to School and available locally grown foods. Allow students five minutes to flip through their Farm to School Journals to remember what they have learned previously.

STEP 1: Define Local (30 minutes)

Take this opportunity for the class to create their own definition of 'local' to apply to Farm to School food at the school.

Allow students to suggest different definitions of "local" and provide a reason for each suggestion. Write all the suggestions on the board, and then ask students to come to a consensus. Definitions may include a radius, specific counties, a specific hour drive, state or regional boundaries. The definition can be as creative as students prefer, including a tiered approach with a different definition of local applied to different food items.

STEP 2: Determine Important Local Products (30 minutes)

➔ Worksheet 4-1: Venn Diagram of Locally Grown Foods and School Meal Foods

Divide students into small groups that will work together for the remainder of Lesson 4 and all of Lesson 5. Students will start work in their small groups by completing a Venn Diagram on Worksheet 4-1 showing the overlap between foods that are grown or raised nearby and foods commonly used in your school meals. To determine the list of available products, students will refer back to the resources and information they gathered in Lesson 2, Activity 2. Students can supplement this information with their personal experience or any other research they would like to undertake.

Students will identify foods commonly used in their own school meals by referring to school menus from the previous year or semester and the information they have learned through their talk with the food service professional and the Farm to School Assessment.

For examples, students may see "Veggie Pizza" on the menu and infer that this menu item includes: wheat (dough), tomatoes (sauce) and vegetables (toppings). Another example may be "Chicken and Seasonal Vegetables" for which students will be able to select specific vegetables based on the month of the menu and their knowledge of seasonality in their geographic region.

STEP 3: Highlight Priority Foods (30 minutes)

Have each group select a "Priority Farm to School Food" from the foods listed in the overlapping portions of the Venn Diagram, indicating that the food is used in school meals already and is available locally. If possible, all groups in the class should select a different priority food in order to maximize the amount of local product research going forward. Use the following discussion questions to help select the "Priority Foods." Ask students to take good notes about the questions below as they can use this information to report back to their food service professional in Activity 3 below.

- A. Which items would be the easiest to replace in the menu? Replacing non-local with locally grown foods, for example exchanging non-local zucchini on the menu for local zucchini, might be a relatively straightforward way to get more locally grown foods in your school meals while local zucchini is in season. Similarly, can students select a food from the same category that would replace a food item that isn't otherwise available locally? Have students look for foods that are used often, and see if either of these replacement strategies would work. Examples of this replacement include substituting a non-local apple with a local apple, replacing non-local oranges with a local melon or replacing a non-local vegetable with a vegetable that can be grown locally. Review old menus and identify how many times locally grown foods could potentially be featured.

B. Look back at your meeting with the food service professional. Did she or he identify any locally grown foods that the nutrition staff view as priorities for incorporating into menus? Did she or he discuss any items that are already being purchased locally but that they would like to “scale up” and get more of?

C. What other considerations may be important to consider? Think about cost, if the item can be purchased whole or lightly processed (chopped, peeled, etc.), the capacity of the school’s kitchen facility to prepare this food, the quantities needed and if students may like it.

ACTIVITY 3: RESEARCH FOR YOUR FOOD SERVICE PROFESSIONALS (45 MINUTES)

► Worksheet 4-2: Priority Local Food Item and Recipe Suggestions

In this activity students will get to know a bit more about the food item selected in Activity 2. Although food items that can most easily be substituted into existing menus have been selected, students will have the opportunity to undertake additional research, to provide leadership to the school and to suggest local items and recipes to a food service professional. In this activity students will select a food service–appropriate recipe for a meal item that features the Priority Food their group selected. Then students will calculate how much of the product is needed to prepare the menu item for the average number of students eating school lunch at the school. Students will also figure out which form of the product is needed (fresh, raw, uncut, minimally processed, frozen, etc.)

STEP 1: Students will complete Worksheet 4-2 to provide information about their Priority Food Item to their food service professional. This worksheet will help them explain why they have selected the specific food item, and how the students think that the food item can be most easily inserted into the school menu.

STEP 2: Students will select a new recipe that features their Priority Food Item, and prepare information about the new recipe for the food service professional. Your food service professional may not be able to implement new recipes, but this activity may provide inspiration for your FSD even if it can’t be followed exactly. The following activity also utilizes your students’ math skills.

First, students will research the resources listed below to select one recipe that features their Priority Local Food Item. This information will be recorded in Worksheet 4-2. Students will then use the information they have learned from Lesson 3 on their school food service to:

1. Determine how many students, on average, eat lunch each day.
2. Determine what quantity of the Local Food Item (in culinary measurements) will be needed to prepare a lunch for the average number of students who eat at school each day. For example: The recipe is written to provide 100 meal servings, and calls for 10 cups of the Priority Food Item. How many cups of apples are needed to serve 200 students, the average number of students who eat lunch each day. (Answer: 20 cups).
3. The students will then estimate the amount of apples needed to supply the 20 cups.

Note to instructors: Recipes will be written using various measurements such as serving sizes, volumes (cups, quarts) or measurements of weight. To help convert these various measurements, have students familiarize themselves with these three resources (links provided below): the Oklahoma Farm to School Produce Calculator, Pecks to Pounds and the Food Buying Guide Calculator for School Nutrition Programs. If students seem frustrated remind them that this is what their food service professional must figure out in order to put their priority food item into a new recipe. Also, allow students to make estimates if needed, although they should make note of it.

In the next Lesson, students will focus on finding local farmers/growers who could supply this item to the school.

Recipe Ideas:

- “A Guide for Using Local Foods in Schools” (starting on page 85)
<http://www.vtfeed.org/materials/guide-using-local-food-schools>
- “Massachusetts Farm to School Cookbook”
http://www.massfarmtoschool.org/wp-content/uploads/2012/05/farm_to_school_cookbook.pdf
- “Minnesota Farm to School: Recipes”
<http://www.extension.umn.edu/farm-to-school/toolkit/using-food/recipes.html>
- “Now We’re Cooking! A Collection of Simple Scratch Recipes Served in Minnesota Schools”
<http://www.health.state.mn.us/schools/greattrays/pdfs/NowCooking.August22.pdf>
- “Kidchen Expedition: Oklahoma Farm to School Cookbook”
<http://www.kidchenexpedition.com/cookbook/>
- “USDA Recipes for Healthy Kids: Cookbook for Homes”
www.teamnutrition.usda.gov/resources/r4hk_homes.html
- “Oklahoma Farm to School Produce Calculator” (bottom of page, download Excel)
<http://www.okfarmtoschool.com/resources/fts-distro-foodsafetymanual/index.htm>
- “Pecks to Pounds”
<http://www.cias.wisc.edu/foodservtools/3-Locate-and-purchase-local-foods/pecks-to-pounds.pdf>
- “Food Buying Guide Calculator for School Nutrition Programs (National Food Service Management Institute)”
<http://fbg.nfsmi.org/>

ACTIVITY 4: SHARING YOUR RESEARCH WITH YOUR FOOD SERVICE PROFESSIONAL (30 MINUTES)

➔ Worksheet 4-2: Priority Local Food Item and Recipe Suggestions

Have students make copies of Worksheet 4-2 in order to share them with their food service professional and/or other people or groups who may also be interested in this information, like the school’s PTA, school administrators or others. Ask students to reflect on their selection of a Priority Food Item, recipe and calculations, and encourage them to write about the process they have just undertaken.

You may ask students to use the perspective of the food service professional to write about what it is like for her or him to do this planning on a regular basis for the entire school. Attach these explanatory papers to the worksheets to give context to the food service professional or other you share the Priority Foods with.

ADDITIONAL ACTIVITIES

Food Service Professional Feedback (20 minutes)

If possible, have students collect and report on the response from the food service professional: What factors did the student miss? Did it seem like a proposal worth exploring more? What additional information would be needed in the next phase? Can the students find that information?

NATIONAL COMMON CORE STANDARDS FOR ENGLISH LANGUAGE ARTS

CCSS.ELA-LITERACY.RST.11-12.3 Follow precisely a complex multistep procedure when carrying out experiments, taking measurements, or performing technical tasks; analyze the specific results based on explanations in the text.

CCSS.ELA-LITERACY.RST.11-12.7 Integrate and evaluate multiple sources of information presented in diverse formats and media (e.g., quantitative data, video, multimedia) in order to address a question or solve a problem.

CCSS.ELA-LITERACY.SL.11-12.4 Present information, findings, and supporting evidence, conveying a clear and distinct perspective, such that listeners can follow the line of reasoning, alternative or opposing perspectives are addressed, and the organization, development, substance, and style are appropriate to purpose, audience, and a range of formal and informal tasks.

CCSS.ELA-LITERACY.SL.11-12.5 Make strategic use of digital media (e.g., textual, graphical, audio, visual, and interactive elements) in presentations to enhance understanding of findings, reasoning, and evidence and to add interest.

CCSS.ELA-LITERACY.SL.11-12.6 Adapt speech to a variety of contexts and tasks, demonstrating a command of formal English when indicated or appropriate.

CCSS.ELA-LITERACY.SL.11-12.1B Work with peers to promote civil, democratic discussions and decision-making, set clear goals and deadlines, and establish individual roles as needed.

CCSS.ELA-LITERACY.W.11-12.7 Conduct short as well as more sustained research projects to answer a question (including a self-generated question) or solve a problem; narrow or broaden the inquiry when appropriate; synthesize multiple sources on the subject, demonstrating understanding of the subject under investigation.

THE COMMON CORE MATH STANDARDS

CCSS.MATH.CONTENT.HSN-Q.A.1 Use units as a way to understand problems and to guide the solution of multi-step problems; choose and interpret units consistently in formulas; choose and interpret the scale and the origin in graphs and data displays.

CCSS.MATH.CONTENT.HSN-Q.A.2 Define appropriate quantities for the purpose of descriptive modeling.

CCSS.MATH.CONTENT.HSN-Q.A.3 Choose a level of accuracy appropriate to limitations on measurement when reporting quantities.

THE MN MATH STANDARDS (2007)

9.3.1.3 Understand that quantities associated with physical measurements must be assigned units; apply such units correctly in expressions, equations and problem solutions that involve measurements; and convert between measurement systems.

THE COMMON CORE SCIENCE STANDARDS

None identified

THE MN SCIENCE STANDARDS (2009)

9.1.3.1.1 Describe a system, including specifications of boundaries and subsystems, relationships to other systems, and identification of inputs and expected outputs.

9.1.3.4.5 Demonstrate how unit consistency and dimensional analysis can guide the calculation of quantitative solutions and verification of results.

THE MN SOCIAL STUDIES STANDARDS (2011)

None identified

Lesson 4: Identify Opportunities and Make a Farm to School Plan
Worksheet 4-1: Venn Diagram of Locally Grown Foods and School Meal Foods

NAME:

Instructions:

Use pencil to begin this project. Fill the two circles below with names of appropriate food items. To determine the list of products available in your area, refer back to the resources and information you gathered in Lesson 2, Activity 2. You can supplement this information with your personal experience or any other research you would like to undertake. To identify foods commonly used in your school meals, refer to school menus from the previous year and the information you have learned through your talk with the food service professional and through the Farm to School Assessment. For any products that appear in both lists, write them in the middle space where the two circles overlap called “Priority Foods” for possible inclusion in your school’s Farm to School program.

In what areas of the U.S. is your food item grown or raised?

GROUP MEMBERS' NAMES:

Priority Food Item(s):

Why we selected this as our Priority Food Item (Be sure to include anything you discussed in Activity 2):

Where the Priority Food Item fits into the existing school menu:

Concerns or drawbacks to this specific Priority Food Item:

Other notes to your food service professional:

Recipe Name:

Source of Recipe:

Web Address (Include a print out or photocopy if possible):

Average Number of Students eating lunch each day:

Quantity of Priority item listed in recipe:

Quantity of Priority Item needed for recipe scaled to feed average number of students:

Quantity of product to be purchased to meet needs of recipe:

Please provide additional notes to your food service professional including the tools you used to make your calculations and any estimates that you made.