

A guide to building integrated farm to school programs



### Connecting Classrooms, Cafeterias, Communities







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### Farm to School Rubric

School Name	Date
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### FTS MEMBERS COMPLETING RUBRIC:

The rubric on the following pages is designed to help schools or districts assess the stage of their farm to school program. This can help inform action planning to identify what next steps might be taken to deepen the program and give it greater staying power. It can also be used to identify readiness for farm to school grants and needs for technical assistance.

The rubric is broken into four sections: Cafeteria, Classroom, Community, and Staying Power. To use the rubric, go through each indicator and identify the description that best matches the current state of your farm to school program. In some cases part of the description might apply to your program and part of it might not, or you might feel that your program falls somewhere between two descriptions. In that case, choose the one description that most fully describes your program, but also highlight any parts of the adjacent description that may apply to your program. Use the blank column to further describe or clarify any responses.

While this rubric is designed as a general tool for all farm to school programs, there will certainly be aspects of your program that may not show up in the indicators or descriptions. Feel free to add language in the appropriate section or blank column that more fully describes your program. This rubric is simply a starting point for you to create a quick snapshot of your farm to school program, so please adapt it to be useful for your needs.

This assessment can be done by an individual (gathering input as needed from food service staff, faculty, and community members), or collaboratively, by a team. A collaborative assessment will likely lead to the most accurate picture of current practices, and can encourage more strategic action planning.

### FTS Rubric, Section 1: Cafeteria

Indicator	Emerging	Developing	Deepening	Thriving
School Nutrition Staff Engagement	School nutrition staff are interested in the creation of a farm to school program.	School nutrition staff representative regularly attends farm to school committee meetings and activities.	School nutrition staff play an active role in developing the farm to school program.	The director/manager and/or several school nutrition staff work with faculty, administration, and community members to coordinate farm to school efforts and programming.
Local Procurement	Possibilities for incorporating local food into the menu and/or resources to help source local food have been identified.	Local sources of food identified and several local foods purchased via informal bid procedure and incorporated in school meals. School nutrition staff are trained and able to purchase local product through standard buying/bidding practices.	Local food regularly incorporated into menu for school year. School nutrition staff can adapt to fluctuating sources of local food, are regularly purchasing local foods through proper procurement methods, and can adapt their budget as necessary.	Annual purchasing contracts have been established between local farmers and the school. There is a system in place to sustain the purchase of local food consistently; new local food sources evaluated regularly.
Infrastructure & Professional Development	School nutrition staff have begun to identify what changes are needed to incorporate local food into the meal program, including infrastructure upgrades, professional development offerings, etc.	Infrastructure changes have been initiated or are being planned. Professional development opportunities are provided for school nutrition staff.	Infrastructure changes allow for incorporation of more local foods.  All school nutrition staff have opportunities for professional development.	Food program infrastruc- ture can process, cook, and serve local foods over the long-term. A plan is in place for ongo- ing evaluations of infra- structure and profession- al development needs as local food purchasing increases.
Classroom & Community Connections	School nutrition staff are interested in conducting taste tests and/or can identify the possibilities for engaging faculty and students in nutrition education and the farm to school program.	School nutrition staff work with farm to school committee to gain feedback from students on the farm to school program, and how to best incorporate nutrition education activities.	School nutrition staff work with farm to school committee on taste tests, curriculum integration, and community farm to school events.	Community members, students, and school staff see the school food program as an integral part of the school and community and of the educational program-ming.

### FTS Rubric, Section 2: Classroom

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Indicator	Emerging	Developing	Deepening	Thriving	
Faculty Involvement	Faculty are interested in creation of farm to school program.	Faculty representative regularly attends farm to school committee meetings or does regular farm to school activities.	Faculty representatives help to plan and implement farm to school activities beyond their own classrooms.  Faculty have opportunities for farm to school professional development.	Multiple faculty members work with school nutrition staff, administration, and community members to coordinate farm to school efforts. All faculty have ongoing professional development opportunities.	
Integrating with Curriculum	Faculty can identify possibilities for integrating food, farm, and nutrition (FFN) topics into curriculum (including wellness, food studies, gardening, etc.).	Some faculty teach lessons or units integrating FFN topics.	Most grades teach lessons or units integrating FFN.	School has a coordinated approach to integrating FFN into curriculum across all grades and in multiple disciplines.	
Experiential Learning Opportunities	Faculty can identify possibilities for using hands-on experiences (growing, cooking, gardening, etc.) as learning experiences.	Some faculty provide experiences through which students can engage in hands-on learning experiences related to FFN.	Most faculty provide hands-on learning experiences that are embedded within larger units of study and support established goals for learning.	School has a coordinated approach to providing students with hands-on learning experiences; each grade provides opportunities for scaffolded experiences that build from grade to grade.	
Cafeteria & Community as Resource	Faculty have an interest in connecting their classroom to the cafeteria and community (farms, producers, etc.).	Faculty have connected classroom learning with the cafeteria or community. Some grade levels have experiences with local farms/farmers/food producers (field trips, class visits, etc.).	Faculty connect cafeteria taste tests with classroom learning. Teachers consider school food program as a nutrition and food education resource. Students have experiences with local farms/farmers/food producers (field trips, class visits, etc.).	School has a coordinated approach to connecting cafeteria taste tests with classroom learning. School has a coordinated approach to providing students experiences with local farms/farmers/food producers.	

### FTS Rubric, Section 3: Community

Indicator	Emerging	Developing	Deepening	Thriving	
Community Engagement	Community members (including local organizations) interested in the creation of a farm to school program.  Community members (including parents and organizations) can identify possibilities for community involvement in a farm to school program.	Community members have committed to be a resource for farm to school program.	Community members actively participate on farm to school committee and provide help with fundraising, classroom and cafeteria activities, or field trips.	A network of community members has been established to provide ongoing help with fundraising, classroom and cafeteria activities, and field trips. The farm to school program is linked to community events.	
Family Engagement	Families interested in creation of farm to school program.	Families have opportunities to get involved in farm to school efforts (taste tests, farm to school committee, etc.). Family representatives regularly attend farm to school committee meetings or participate in farm to school activities.	Families actively participate in a range of farm to school activities (tastests, field trips, classroom activities, fundraising, cafeteria, etc.).	PTO/PTA or other fam- ily organizations have made long-term commit- ment to farm to school program. A network of families has been established to provide ongoing support.	
Farms & Community- based Purchasing	Farmers/producers interested in partnering with school.	Farmers, food producers, and local food-based businesses have offered to sell a product for school meals.	School is sourcing product from local farmers, food producers, and food-based businesses at multiple times during the school year.	Long-term relationships established between local farms, food producers, and food-based businesses for sourcing food- and providing food- and nutrition-based experiences throughout the school year.	
Community Educational Opportunities (businesses, nonprofits, govern- ment agencies, civic groups, etc.)	Community members interested in partnering with school.	Community members and organizations offer to be resource for school educational opportunities (field trips, farm visits, class speakers, etc.).	School is using community members and organizations as resource for educational opportunities during the school year.	Long-term relationships established between community members and organizations to provide educational opportunities throughout the school year.	

### FTS Rubric, Section 4: Staying Power

Indicator	Emerging	Developing	Deepening	Thriving	
Administrative Support	School administration is interested in the creation of a farm to school program.	Administration is in regular contact with farm to school activities and/or farm to school committee.	Administration supports staff-wide farm to school professional development and participates in farm to school activities.	Administration supports inclusion of farm to school tasks into job descriptions and/or provides release time for staff to do farm to school work. Administration is a resource to other school administrators on how to start and sustain a farm to school program.	
School Culture	There is general interest in the school community in the creation of a farm to school program.	A farm to school committee has been created and is active, with representation from school administration, school nutrition staff, faculty, and community members.	School community members continually revisit their farm to school action plan and develop ideas for the future. All school community members are provided ongoing opportunities for farm to school professional development. School community has waste reduction strategies that meet state guidelines and are implemented schoolwide (classroom, cafeteria, events, etc).	School community members feel farm to school is integral part of school, part of "who they are." School is showcased as farm to school model for district or state, and school practices are shared at local, regional, or national level. When new school staff are hired, interest in and ability to contribute to farm to school program are considered as hiring criteria.	
Communica- tion	Communication about farm to school takes place within peer groups (faculty, administration, school food service, families, community members).	Some members of school community are aware of farm to school program. School community members start to communicate about farm to school across peer groups.	Most members of school community are aware of farm to school program. Vehicles for communication across peer groups have been established (such as meetings, email list, newsletters, website, etc.).	All members of the school community are aware of farm to school program. System in place for communicating about farm to school that allows everyone to have access to information.	
Funding/ Resources	Funding or resource possibilities identified to launch farm to school program.	Initial funding or resources secured to support farm to school efforts.	Diversified sources of funding and resources developed to sustain farm to school.	System for funding and access to resources in place that can sustain farm to school program over the long term.	

## FTS Action Planning, Section 1: Cafeteria

Technical Assistance/ Resources Needed	
<b>Timeline</b> (By when do items need to be done?)	
Person(s) Responsible (Lead person/group member)	
Action Steps (What needs to be done now?)	
Goals	

Years	
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## FTS Action Planning, Section 2: Classroom

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Goals	Action Steps (What needs to be done now?)	Person(s) Responsible (Lead person/group member)	Timeline (By when do items need to be done?)	Technical Assistance/ Resources Needed
Long-Term Ideas & Goo	Long-Term Ideas & Goals for Future School Years	80		

## FTS Action Planning, Section 3: Community Review indicators in rubric to help inform your goals

Technical Assistance/ Resources Needed	
<b>Timeline</b> (By when do items need to be done?)	
Person(s) Responsible (Lead person/group member)	
Action Steps (What needs to be done now?)	
Goals	

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# FTS Action Planning, Section 4: Staying Power

Goals Action Steps (What needs to be done now?) (Lead person)(s)			
	Person(s) Responsible (Lead person/group member)	<b>Timeline</b> (By when do items need to be done?)	Technical Assistance/ Resources Needed

Long-Term Ideas & Goals for Future School Year	S
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### Impact & Feasibility Analysis

In order to set priorities on what actions to do first, you can use this simple "impact and feasibility analysis" tool to facilitate a group discussion. It is similar to a cost-benefit analysis that helps you prioritize, match actions to your capacity, and stay realistic about timing.

### AS YOU PRIORITIZE YOUR ACTIVITIES, KEEP IN MIND:

- School community support (where has there been the most energy, interest?)
- Potential uptake (are resources immediately available for this activity?)
- Urgency (does this address an immediate need or is it an opportunity with a short time frame?)
- Logical sequencing (do certain activities need to happen before others?)
- Momentum (will the activity give you early success? credibility and visibility for your bigger plans?)
- Champions (is there a champion ready to make it happen?)
- Mission (does this further your FTS mission and goals?)
- Cost (does it offer good value in terms of cost?)
- Quality of ideas (Are these activities easily doable and broadly supported? Do they have high visibility and value?)

**STEP 1:** Write each activity on a separate sticky note.

**STEP 2:** Clarify what it would take to make each idea happen; be specific as to the time, people, and resources that would be required.

**STEP 3:** Sort your ideas using the matrix at right (it can be drawn easily on easel paper). As a team, place each activity in the box where it best belongs.

**STEP 4:** Identify your priorities based on higher impact and higher feasibility.

enefits	High	1st CHOICES high value, visibility, and broad support	2nd CHOICES probably worth it
Value and Benefits	Low	3rd CHOICES easy, but of less value	4th CHOICES not worth it
		Easy/Cheap	Hard/ Expensive

**Effort and Cost** 

### PRIORITY SETTING MATRIX

Depending on which quadrant an activity lands in, it will become clear which ones are more feasible and will have a greater impact. Make these your first priority. Activities that have less impact, but that are easy to accomplish, can help you build momentum. Activities that have the greatest impact but that are less feasible may be added to your action plan as future projects.

CONTINUED

## Communications Planning Template

Communications Goal:

Channels/Connectors	How can you reach them? Who can help?	
Messages	What messages will resonate?	
Calls to Action	What do you want them to do?	
Beliefs & Interests	What do they care about and know regarding FIS?	
Audience(s)	Who do you want to reach?	

## Communications Planning Template continued

Channels/Connectors	How can you reach them? Who can help?	
Messages	What messages will resonate?	
Calls to Action	What do you want them to do?	
Beliefs & Interests	What do they care about and know regarding FIS?	
Audience(s)	Who do you want to reach?	

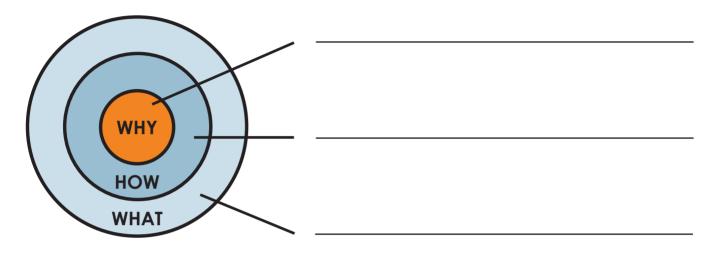
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### Communications & Outreach Planning

### 1

### **KNOW YOURSELF**

Articulate the **Why, How, and What** of your Farm to School program.



Write an **Elevator Pitch** for your program—a short (50- to 100-word) description of what you believe, what you're doing, and why it matters.

Identify a **Communications Goal** (e.g., increase food awareness, publicize event).

continued

**IDENTIFY YOUR AUDIENCES & NETWORKS** Brainstorm the different groups and demographics in your community (however you define it—school community, town, region, etc.) and focus in on the ones that you are trying to reach in order to advance your particular communications goal.

- **Community Network:** Formal (e.g., church members, historic society) or informal (e.g., neighbors, diner regulars) groups in your community
- **Connectors:** People who represent "hubs" (connect to many different networks, groups, or people) or "bridges" (link disconnected groups) within the community
- **Audience:** Group or demographic that you are trying to reach (e.g., elementary students, PTO members, parents, city council)
- **IDENTIFY YOUR CALLS TO ACTION** Identify what you would like each audience to do after receiving your message and communications. (See sidebar.)

ARTICULATE YOUR KEY MESSAGES Key messages are the main points that you want to convey through your communications. They are a balance between what you want to convey and the context or tailoring that will make it relevant to a particular audience. Even if your call to action is the same for different audiences, your key messages may not be.

Example key messages for meal program participation

- For Parents: Meal program is healthy, affordable, and will save vou time and effort.
- **For Teachers:** Meals are delicious and your participation will set an important example.
- **For Students:** Meals taste great and it's cool to eat school lunch.

**CHANNELS & OPPORTUNITIES —** Now that you know what you want to say, choose the communications channels that your audiences use and that will maximize reach, efficiency, and impact. (See sidebar.)

**IDENTIFY THE BEST COMMUNICATIONS** 

### 3. Calls to Action

- Sign up for email list
- Purchase school lunches
- Cook healthy meals
- Follow on social media
- Tell a friend
- Donate money
- Volunteer to help
- Read a story or blog post
- Take a class

### 5. Channels & Opportunities

- Social media (Facebook. Twitter, Instagram)
- Local newspaper
- School news
- Signs and bulletin boards
- Table tents, placemats
- Connectors
- Posters and postcards
- Blogs and websites
- Tables at events
- Sidewalk chalk
- Email lists and forums
- T-shirts
- Trusted messengers
- Pick-up and drop-off times
- Community events
- Community centers (libraries, restaurants)
- Contests and promotions
- Group meetings

### SAMPLE JOB DESCRIPTION

### School-Based Farm to School Coordinator

The successful candidate will collaborate with the farm to school committee, the food service manager, and local farmers to foster a positive school nutrition environment by supporting the use of fresh, local food in the cafeteria, integrating nutrition education curriculum into classroom experiences, and cultivating interactions between local farmers and the community. Specific responsibilities include:

### **Cafeteria:** To increase consumption of local foods in cafeteria:

- Implement monthly taste tests in cafeteria, with student prepared recipes, and establish systems for recording and using feedback about new foods and recipes
- Market local food served in cafeteria
- Communicate with cafeteria staff on school garden harvest and timeline for delivering food to the cafeteria

### **Classroom:** To integrate nutrition education into existing curriculum:

- Support existing classroom activities
- Develop, coordinate, and facilitate delivery of educational programs
- Build on existing and forge new relationships with local farmers to arrange field trips and school visits
- Attend relevant school meetings
- Engage students in the planting and harvesting of school garden

### **Community:** To raise awareness of and build support for the FTS program and local agriculture:

- Design and distribute outreach materials to communicate with parents
- Keep website updated
- Work with school nutrition director/staff and committee to hold annual harvest festival featuring local food and fundraising opportunities
- Write articles and press releases to publicize FTS activities
- Maintain school garden through the summer months, utilizing community volunteers as much as possible

### **Sustainability:** To provide for the future sustainability and growth of the FTS program:

- Build a network of active volunteers to assist with responsibilities listed
- Collect and use feedback to inform practices and next steps
- Plan and implement fundraising initiatives with FSM and committee
- Develop and maintain partnerships with community members, including volunteers, farms, individual donors, businesses, and grantors
- Create and maintain a directory of school, farm, and partner contacts

### **Skills Needed**

- Ability to communicate and collaborate with a variety of people
- Strong public speaking and writing skills
- Organization and problem-solving skills
- Ability to locate resources in an efficient manner
- Knowledge of local food system and sustainable agriculture a plus
- Knowledge of Common Core and Next Generation Science Standards a plus
- Grant-writing and fundraising experience a plus

### SAMPLE JOB DESCRIPTION

### District-Wide Farm to School Coordinator

Our supervisory union (SU) needs an energetic, creative person to coordinate SU-wide farm to school activities. The coordinator will work closely with school based coordinators to promote school gardens, professional development opportunities, field trip possibilities, curriculum development and fundraising for long-term sustainability.

### Responsibilities

The coordinator will:

- Facilitate monthly steering committee meetings
- Help organize and support school garden efforts
- Identify field trip opportunities to local farms for participating schools
- Identify professional training opportunities for in-school FTS coordinators
- Help document FTS activities undertaken at school in writing and with photographs, and provide report to funding sources
- Communicate efforts with staff, students, parents, school administrators and the broader communities to engage their ideas, energy, and involvement in the FTS programs

### Qualifications

The coordinator must have excellent communication (written and oral) and organizational skills in order to work with in-school FTS coordinators, school staff, administrators, and community members.

### Required

- Basic computer skills related to email, word processing, spreadsheets, and Internet searches
- Reliable transportation
- Ability to work well with students, staff, parents, school administrators, farmers, and other community members
- Familiarity with schools
- Experience in fundraising and grant-writing
- Availability during school hours and some evening meetings
- College degree in related field

### **Preferred**

- Education and/or experience in local food, healthy eating, gardening, farming
- Experience working with elementary school students
- Familiarity with the communities of our district schools

### Government Role in School Meals — FEDERAL —

### U.S. DEPARTMENT OF AGRICULTURE (USDA)

**Food and Nutrition Service** Sets standards, promulgates rules, administers pass-through funds to the states, and oversees the following programs:

- **National School Lunch Program (NSLP)\*:** Publicly funded school meal programs began with lunch in 1942, in response to widespread malnutrition discovered during World War II. This became the National School Lunch Program.
- **National School Breakfast Program (SBP)\*:** Piloted in 1966 to serve schools in poor neighborhoods and in areas where students traveled long distances to school, it continues in almost all schools today. The program was modeled on meal programs developed by the Black Panthers to serve children in their communities.
- **Fresh Fruit & Vegetable Program (FFVP):** Piloted in 2002, the program now serves elementary schools nationwide where at least 50% of students receive free or reduced-price meals through the NSLP. Priority is given to schools with greater percentages of food insecure students.
- The Child and Adult Care Food Program (CACFP): Assists "child and adult care institutions and family or group day care homes for the provision of nutritious foods that contribute to the wellness, healthy growth, and development of young children, and the health and wellness of older adults and chronically impaired disabled persons." Through CACFP, more than 4.2 million children and 130,000 adults receive nutritious meals and snacks each day.
- **Schools/Child Nutrition Commodity Programs:** Provided \$1.3 billion in USDA Foods (formerly "commodities") in FY 2018, including \$1.7 million to Vermont schools.
  - USDA Farm Service Agency supplies price-supported items
  - USDA Agricultural Marketing Service supplies seasonal and perishable commodities through the DoD

Office of Community Food Systems Offers various grants in support of Farm to School initiatives.

### **U.S. DEPARTMENT OF DEFENSE (DOD)**

**DoD Fresh Program** Provided \$158 million in fresh produce to schools across the U.S. and territories (FY 2015), and ~\$100,000 to Vermont (FY 2016). Some produce is sourced within each state by the procurement specialist in the Child Nutrition Program. In nine pilot states (Vermont is not one of them) the DoD's new Farm to School Program focuses on linking local farms directly to schools for produce sales. DoD is involved in school food because it has the best transportation system to get fresh produce to schools, army bases, and prisons.

\*These two programs collectively subsidize about 38% of the total cost of Vermont school meal programs through reimbursements for free and reduced-cost meals and snacks.

continued

### Government Role in School Meals — STATE —

Responsibilities for school meals vary from state to state. The State of Vermont's role is outlined below.

### **VERMONT AGENCY OF EDUCATION**

### **Child Nutrition Programs**

Oversees all federally funded school food programs. Monitors, trains, and provides technical assistance to School Food Authorities. Oversees the distribution of USDA Food Program.

### VERMONT DEPARTMENT OF HEALTH

### Food and Lodaina Division

Performs kitchen and cafeteria inspections.

### **VERMONT AGENCY OF AGRICULTURE, FOOD, & MARKETS:** AGRICULTURAL DEVELOPMENT

Manages the Farm to School Grant program and related technical assistance for grantees.

### Government Role in School Meals — LOCAL/SCHOOL —

### LOCAL SCHOOLS & SCHOOL DISTRICTS

In addition to federal school meal programs, many schools sell "competitive foods." These are any foods or beverages that compete with nutritionally complete school meals for student attention and money. Sold in vending machines, snack bars, and a la carte lines, these foods may help balance a school meal program budget or support athletic programs, PTOs, school clubs, and/or events. In 2013, USDA issued the "Smart Snacks in School" program, which created nutrition standards for these competitive foods.

### School Meal Finances 101

School food programs are supported by three main sources: federal and state reimbursements, students/families, and USDA Foods. Schools in the federal school lunch or breakfast programs are reimbursed by the USDA at annually fixed rates for each nutritionally compliant student meal they serve, depending on meal category.

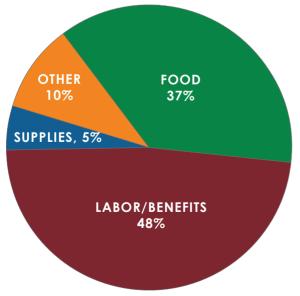
### WHO FUNDS A TYPICAL SCHOOL LUNCH?

MEAL CATEGORY	FEDERAL CASH REIMBURSEMENT		STATE CONTRIBUTION		USDA FOODS CONTRIBUTION		FAMILY CONTRIBUTION		TOTAL MEAL REVENUE
FREE*	\$3.23	+	\$0.32	+	\$0.32	+	0	=	\$3.55
REDUCED+	\$2.83		0		\$0.32		0		\$3.55
PAID	\$0.31		0		\$0.32		\$2.78		\$3.41

<sup>\*</sup>For families with incomes at or below 130% of the poverty level (\$31,960 for a family of four in 2017–18). For families with incomes 130% to 185% of the poverty level (\$45,510 for a family of four in 2017–18). Several states, including Vermont, have eliminated reduced-price meals; eliaible students now receive free breakfast/lunch.

The USDA Community Eligibility Provision (CEP) allows the schools and districts with the nation's highest poverty levels to serve breakfast and lunch free to all enrolled students (universal meals) without collecting household applications. CEP schools are reimbursed using a formula based on the percentage of students categorically eligible for free meals because of their participation in other federal programs, such as the Supplemental Nutrition

### **AVERAGE COST BREAKDOWN** TO PRODUCE A SCHOOL MEAL



Source: The USDA Food and Nutrition Services School Lunch and Breakfast Cost Study-II, 2013. Assistance Program (SNAP) and Temporary Assistance for Needy Families (TANF). Schools must have at least 40% of their students directly certified (often through SNAP benefits) to qualify for the CEP program.

Schools determine what to charge for their meals and always aim to increase access. The USDA's Paid Lunch Equity Tool provides average prices to help schools do this, realizing that many factors affect meal pricing.

### SUGGESTED SCHOOL MEAL PRICING

Based on USDA's Paid Lunch Equity Tool

TYPE OF MEAL	AVERAGE PRICE*			
Student Breakfast (Elementary)	\$1.25-1.50			
Student Lunch	\$2.78			
Adult Meal	\$3.45			

<sup>\*2016-17</sup> school year

### What's in a School Meal?

To receive federal reimbursements, school meal programs must offer meals that meet federal nutrition standards, based on the 2010 Dietary Guidelines for Americans. Referred to as "the meal pattern," the standards require the right balance of fruits, vegetables, low-fat or fat-free milk, whole grains, and lean protein in every meal. The Healthy, Hunger-Free Kids Act of 2010 required USDA to update these standards. Effective in 2012, the new standards require more fruit, vegetables, and whole grains, and limit sodium, calories, and unhealthy fat in every meal. As of 2018, however, the USDA has allowed states to temporarily relax some of the guidelines for milk, whole grains, and sodium, because of their impact on menu planning, procurement, and contracts.



Source: School Nutrition Association.

### 10 Reasons to Buy Local Food

### 1. Locally grown food tastes and looks better.

Crops are picked at their peak, and farmstead products like cheese are handcrafted for best flavor. Livestock products are processed in nearby facilities, and typically the farmer has a direct relationship with processors to oversee quality. This is rarely the case in large industrial facilities.

- **2.** Local food is better for you. The shorter the time between the farm and your table, the less likely that nutrients will be lost from fresh food. Food imported from far away is older and has traveled on trucks or planes, and sat in warehouses, before it gets to you.
- 3. Local food preserves genetic diversity. In the large-scale agricultural production systems, plant varieties are chosen for their ability to ripen uniformly, withstand harvesting, survive packing, and last a long time on the shelf. This limits genetic diversity. Smaller local farms, in contrast, often grow many different varieties of crops to provide a long harvest season, an array of colors, and the best flavors. Livestock diversity is also higher where there are many small farms rather than few large farms.
- **4. Local food is safe.** There's a unique kind of assurance that comes from looking a farmer in the eye at farmers markets or driving by the fields where your food comes from. Local farmers aren't anonymous, and they take their responsibility to the consumer seriously.
- 5. Local food supports local families. The wholesale prices that farmers get for their products are low, often near the cost of production. Local farmers who sell direct to consumers cut out the intermediary and get full retail price for their food, which helps farm families stay on the land.

**6. Local food builds community.** When you buy direct from a farmer, you engage in a timehonored connection between eater and grower. Knowing farmers gives you insight into the seasons, the land, and your food. It can also give you access to a place where your children and grandchildren can learn about nature and agriculture.

### 7. Buying ocal food preserves open space.

When farmers get paid more for their products by marketing locally, they're less likely to sell farmland for development—your local farm purchases are proactively preserving our working landscape. That landscape is essential to other economic activity, such as tourism and recreation.

- **8. Local food keeps taxes down.** According to studies by the American Farmland Trust, farms contribute more in taxes than they require in services. (Most development contributes less in taxes than the cost of required services.) Cows don't go to school; tomatoes don't dial 911.
- 9. Local food benefits the environment and wildlife. Well-managed farms provide ecosystem services: They conserve fertile soil, protect water sources, and sequester carbon from the atmosphere. A farm environment is a patchwork of fields, meadows, woods, ponds, and buildings that provide habitat for wildlife.

### 10. Local food is an investment in the future.

By supporting local farmers today, you are helping to ensure there will be farms in your community tomorrow. That's important for food security, especially in light of an uncertain energy future and our current reliance on fossil fuels to produce, package, distribute, and store food.

### Tiered-Buying, Values-Based, Local Purchasing Plan

Each institution has a unique set of priorities, challenges, and values that determine what food it purchases, how much, where it comes from, and how it will be used. This worksheet will help you articulate your food values, what program considerations and logistics impact your purchasing, and how these factors determine your goals toward local/regional and values-based purchasing. Once you've completed this worksheet, you will be able to better communicate the good work your food/nutrition program is doing to purchase local and values-based products.

People buy food based on conscious or unconscious values. These may include a food item's quality, cost, convenience, source, labor, safety, production practices, distribution, economic impact, and sustainability. Reach out to the three audiences below to gather their thoughts on the values they consider when purchasing food. Their values may be shared, similar, different, or even conflicting—there are no wrong answers!

Food/Nutrition Program Staff	Community Members	Customers

Values Statement	
At	, we support

	ADDITIONAL	CONSIDERATIONS	OR	CONSTRAINTS
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What additional limitations do your customers and your program face when making food purchases (e.g., time, budget/cost, familiarity with foods, cafeteria or kitchen design, equipment available)?

Food/Nutrition Program Staff	Customers	

Use your values statement and the considerations above to inform what foods you're able to purchase and how you will use them. Consider factors such as seasonality, whole vs. processed foods, special projects or events, your daily menu, and salad bars or other opportunities to highlight your ingredients.

What Will You Purchase?	How Will You Use the Food?

YOUR PURCHASING GOALS Indicate what foods you will purchase in each category, considering product availability, your relationships with farmers, distribution support, your existing contracts, etc.

Local Community/County	Your State	Regional/Other

Make clear, specific goals (e.g., percentage of budget from farms in your county/state, percentage of fair trade or antibiotic-free products, highlighting one local/regional product daily). Share your goals with your customers.

Your G	oals		

### Creative Community Fundraising

Here are a handful of VT FEED's favorite ideas (and a few tried-and-true ones) for raising funds to purchase and prepare local foods while building community relationships. Some offer students opportunities for physical activity, while others promote community service—some do both! When planning any fundraising event, be sure to check with local authorities regarding any rules or regulations around games of chance or sale of other goods.

**Administrative Fun:** Put out a money jar in the school office to collect spare change from students and staff. The secretary can count the collection daily and post the total. At set increments (e.g., \$100, \$500), the principal or vice principal has to do a stunt, such as a cheer or a scene from a play.

**Buy Local School Fundraising Groups:** Support the Buy Local movement through <u>CloseBuy</u>, <u>Farm-Raiser</u>, and <u>RedBarn</u> fundraising companies.

**Calendar Raffle:** Solicit 30 prizes (gift certificates, cash, gifts) from local businesses and award one prize a day for a month. Students sell tickets for \$10 each and each ticket has 30 chances of winning! One elementary school makes \$10,000 a year on this fundraiser.

**Cookbook:** Create a school cafeteria cookbook and sell it as part of a yearly fundraiser. Maybe an English class and art class can team up to create it?

**Date Night/Kids' Night Out:** Set up games and movies for kids in your cafeteria or gymnasium (with plenty of responsible adult supervision) so the other adults get an evening out. Base donations on the going rate for child care.

### G.S.T. Auction (Goods, Services, and Talents):

Solicit local businesses (or families or groups of school children) to donate anything they can offer. One school auctioned a week at a time share (airfare not included), hair care services, a lawn tractor, furniture, and gift certificates, raising \$20,000.

**Handmade School Store Gifts:** Students can make hand salves, upcycled jewelry, and small gifts

to sell as part of their sustainability and economics studies. Consider including garden produce or schoolyard chicken eggs if seasonally appropriate.

**Harvest Dinner:** Consider combining a benefit dinner with an established event that has large community support, such as a Veterans Day meal, Thanksgiving Feast, or community-wide school meeting.

**Plant Sale:** Ask families to divide their perennials and donate plants for a sale. One garden club makes \$1,000 to \$2,000 each year from a sale like this.

**Seed Saving and Selling:** At the end of school gardening season, save seeds from the tomatoes, peppers, or other produce to dry and sell next spring in homemade seed packets. One pumpkin can produce hundreds of seeds, so 20 seeds in a packet for \$2 can add up.

**Sled-A-Thon:** Each student seeks pledges for each trip down the hill. One school held this event and raised over \$2,000. A potluck was held afterward for the participants and their families.

**Spring Yardwork:** One soccer team offered to rake yards and spread compost at a bargain rate. Ten players worked three half days each, and each boy made \$240. Customers were asked for donations for the work, and those donations exceeded expectations.

**Take-Out Dinner from School Cafeteria:** School cafeteria kitchens mostly sit quiet during dinner time. Some schools have started programs allowing busy families to grab a healthy meal for their family while supporting their school meal program.

### Fresh Fruit and Vegetable Program Regulations & Best Practices

The most effective Fresh Fruit and Vegetable (FFVP) programs are administered in the classroom, combined with nutrition education. Modeling healthy eating habits can be a very effective way to encourage students to try new foods.

### **USE FFVP FEDERAL FUNDS TO:**

- Purchase, prepare, and distribute fresh fruits and vegetables to classrooms.
- Reimburse allowable FFVP program expenses. (Administrative costs are limited to 10% of total allotment and may be used for equipment used in the program.)

### PROGRAM REQUIREMENTS

- The Fresh Fruit and Vegetable Program must remain separate from the National School Lunch and Breakfast Program.
- All fruits and vegetables must be available to all enrolled school children at no charge.
- Serve fresh fruits and vegetables during the school day as snacks, not with breakfast, lunch, or afterschool snack.
- Publicize the availability of fresh fruit and vegetable snacks widely in both school and community.

### **LEFTOVER FRUITS & VEGETABLES**

### Cut

- Follow safe handling procedures.
- Items opened in classrooms are assumed to be contaminated and should be discarded.
- Unopened containers and items not handled in classrooms are considered safe to re-serve.
- You may use leftover cut products in the National School Lunch or Breakfast Program, but only to avoid spoilage.

### Whole

Can be offered again later in the week, preferably the next day, only as part of the FFVP.

### OTHER CONSIDERATIONS

- Handle locally sourced produce the same way you handle produce from other sources.
- It is appropriate to ask local suppliers about their food safety protocols.
- Be clear about your quality standards.
- Only low-fat or nonfat vegetable dips can be served with fruits and vegetables.
- Serving size for a condiment is one to two tablespoons.
- To increase palatability, fresh vegetables (not canned, frozen, or dried) may be cooked once per week and must always be presented as part of a nutrition education lesson.

### Tips for Buying Directly from Farmers

Having a direct buying relationship with one or several farmers or producers can be extra work, but can also be educational and rewarding. You can learn more about local food—how it's grown or produced—and benefit from extra products when they are in abundance.

The school food procurement system doesn't naturally lend itself to buying directly from farmers. In developing a system that works for farmers and schools, both sides will have concerns. Being open to dialogue and negotiation is the first step toward building lasting, viable partnerships.

**Do a little research.** See who is growing products in your area. Besides over the Internet, you can also connect with farmers at farmers markets, roadside stands, and U-pick farms. You might even connect with neighbors who may plant more than they need.

**Prepare a short list of products.** Make a short list of products, volumes, and frequency of purchasing for the items you want. If you know how you will use them (cut up raw or cooked or both), note that as well. Don't forget meat, eggs, and dairy!

**Set up business appointments.** Contact the farmers in the early morning or evening, since many farmers are in their fields or marketing their crops during the day. If you leave a message, be sure to indicate when is a good time to call you back and if you have a direct phone extension.

**Request free samples.** When you meet a farmer interested in working with you, ask if they can provide a free sample of the product so that you can see if it will meet your school's needs and requirements.

**Visit farmers at their farms.** Observing local farm businesses in action gives you a better idea about food safety, availability, pricing, and challenges and will demonstrate to the growers your sincere interest in their product. Farm visits also give you the chance to speak directly to a farmer about what you want and need in the unique context of your farm to school relationship.

Talk to farmers as early as possible so they can plan accordingly. Hold winter meetings when farmers are less busy, and plan what products you want to use with the farmers so they have some notice and can be prepared for what you want to buy. To develop a reputation as a reliable customer, commit to a realistic purchasing volume and develop a realistic delivery schedule that suits your and the farmer's needs.

Be aware of your school's insurance coverage requirements. Most farmers carry liability insurance. Make sure they do before you enter into contracts that may require it.

### Ask farmers to develop a weekly availability

**sheet.** Having up-to-date information about availability, the size of food items, quality, estimated quantity, and price per unit will make it easier for you to make good purchasing decisions.

Look for products that are difficult to obtain from long-distance shippers. Certain foods, particularly produce, are not on the distributors' trucks because they are unusual (such as ground cherries) or difficult to transport (such as small plums). Be sure to ask your farmers if they have some interesting or unusual products that you could try out in your program.

continued

Work with the growers to arrange for supply **replacements.** Sometimes the weather does not cooperate and planned produce is unavailable. Often farmers are able to offer you a substitution. However, it is good to have a backup of frozen vegetables just in case.

Decide whether to do a micro-purchase or an **informal bid.** With one-time purchases or if you are trying out a new farm or new products, consider documenting the buy as a micro-purchase. For repeated and consistent purchasing, you must solicit bids through the "three bids and a buy" informal bid solicitation process.

Clearly establish a payment schedule. Farmers' costs are incurred upfront and they are often accustomed to presenting an invoice and receiving payment upon delivery. School districts often have a payment cycle of 30 days, 90 days, or even longer. This difference in operation needs to be worked out between a school district and the farmer.

### Invite local farmers to have lunch at your school and sample the foods you prepare.

Seeing what you are doing and meeting the students will further your relationships and let them see your program in action.

Start small and have partners. Rather than buying a large variety of products, or setting up relationships with numbers of farmers, start with one or two farms and three to six products that you use regularly. Then make sure that your local products are noticed. Enlist the help of teachers and parents to help you advertise your local purchasing in school newsletters and on menus and posters.

Stay in touch. Don't forget to keep farmers in the communication loop with notices of meetings and content. Invite them to take part in the process.

### Vermont Harvest Calendar

This calendar presents the diverse array of farm products that are available throughout the seasons at local farmers markets, farm stands, and retail stores. Foods in season are at peak flavor and nutritional value, and their cost is often at its lowest. Find out when your favorite fruits and vegetables are freshest and which products are **in season now.** 

January	February	March	April	May	June
Apples	Apples	Apples	Apples	Asparagus*	Asparagus
Beets	Beets	Beets	Carrots	Greens*	Chard*
Cabbage	Cabbage	Carrots	Parsnips	Parsnips	Greens
Carrots	Carrots	Onions	Potatoes	Radishes*	Lettuce*
Celeriac	Onions	Parsnips	Turnips	Rhubarb*	Peas*
Garlic	Parsnips	Potatoes		Scallions*	Radishes
Onion	Potatoes	Rutabaga		Spinach*	Rhubarb
Parsnips	Rutabaga	Turnips			Scallions
Potatoes	Turnips	Winter Squash			Spinach
Rutabaga	Winter Squash				Strawberries*
Turnips	C VI				
Winter Squash					

July	August	September	October	November	December
Beans*	Apples*	Apples	Apples	Apples	Apples
Beets*	Beans	Beans	Beans	Beets	Beets
Broccoli	Beets	Beets	Beets	Broccoli	Brussels Sprouts
Carrots*	Blackberries*	Blueberries	Blueberries	Brussels Sprouts	Cabbage
Cauliflower*	Blueberries*	Broccoli	Broccoli	Cabbage	Carrots
Fennel*	Broccoli	Brussels Sprouts*	Brussels Sprouts	Carrots	Celeriac
Greens	Cabbage*	Cabbage	Cabbage	Cauliflower	Garlic
Kale*	Carrots	Carrots	Carrots	Celeriac	Kale
Lettuce	Cauliflower	Cauliflower	Cauliflower	Celery	Onions
Melons*	Celery*	Celeriac*	Celeriac	Chard	Parsnips
Peas	Chard	Celery	Celery	Kale	Potatoes
Potatoes*	Corn*	Chard	Chard	Leeks	Pumpkins
Radishes	Cucumbers*	Corn	Cucumbers	Onions	Radishes
Raspberries*	Eggplant*	Cucumbers //	Eggplant	Parsnips	Rutabaga
Scallions	Fennel	Eggplant	Greens	Potatoes	Turnips
Spinach	Garlic*	Fennel //	Kale	Pumpkins	Winter Squash
Summer Squash*	Greens	Greens	Leeks	Radishes	
Tomatoes*	Kale	Kale	Lettuce	Rutabaga	
Turnips*	Leeks*	Leeks	Onions	Turnips	
•	Lettuce	Lettuce	Parsnips	Winter Squash	
1 A	Melons	Onions	Peppers	·	
	Onions*	Parsnips*	Potatoes		
	Peas	Peppers	Pumpkins		A TORRES MAN
	Peppers*	Potatoes	Radishes		
100/1	Potatoes	Pumpkins*	Rutabaga*		
	Radishes	Radishes	Scallions		
ALVI	Raspberries	Raspberries	Spinach		
	Scallions	Scallions	Summer Squash	3 3	*Fruit or
	Spinach	Spinach	Turnips		vegetable
	Summer Squash	Summer Squash	Winter Squash	THE PARTY OF THE P	comes into
	Tomatoes	Tomatoes			season this
	Turnips	Turnips			month.
	Watermelon*	Winter Squash*			
	***	T MILLIEL 3400311			

Source: "Farm to School: Highlighting Local Fruits & Vegetables," by VT FEED and Vermont Agency of Education. Download at  $\underline{vtfeed.org/feed-resources-library}$ .

### Recommended Kitchen Equipment for From-Scratch Cooking

High-quality equipment is available to improve production times and flexibility when you are incorporating scratch recipes into your program. Whether you choose local potatoes, culinary sauces and seasonings, cheeses, or meats, having the right equipment can help the transition to scratch cooking.

### WEDGE MAKERS/FRY CUTTERS

- Sunkist Fresh Fruit and Vegetable Sectionizer
- Wedge Maker Insta-Cut
- Nemco Easy FryKutter (used by REAP Food Group in Madison, Wisconsin to prep 500+ pounds of carrot, sweet potato, or kohlrabi sticks weekly)

### TILT SKILLETS

Great for boiling potatoes and pasta, stir-fries, batchcook recipes, grilled sandwiches, and more.

- Cleveland floor model: SEL30T1, SEL40T1 gas, tabletop model; SET15 gas
- Vulcan-Heart floor model (VE30): 30-gallon V-Series electric
- Southbend: 30-gallon gas with open leg frame base #BGLT-30 (NG)
- Market Forge: 1200-TILT, Electric, 23 Gallon Capacity, Countertop Model 301-1200

### STEAMERS & COMBI/CONVI OVENS

A wonderful addition for steaming or browning potatoes, meats, processed items, and homemade pizza

- Blodgett BCX-14 series full-size combi ovens
- Cleveland 10 pans-full size boiler-less electric OES-10.20 Convotherm
- Cleveland OES-6.10 Convotherm "The Mini"
- Hobart Boiler-less steamers HC24EA3 and HC24EA5

### **FOOD BLENDERS**

Warren Immersion Food Blender Recommended: 18" Heavy-Duty, #WSB65

### PANINI/CLAMSHELL GRILLS

Step up your sandwich offerings utilizing fresh, local ingredients in a hot, grilled sandwich

- Cadco Unox CPG-10 single sandwich grill with ribbed plates
- Cadco Unox CPG-20 double sandwich grill with ribbed plates, Waring (WPG150) 12" grooved full-top panini grill, Panini Perfetto series
- Star (GX10IS) 15 3/4" Grill Express smooth two-sided grill

### **MIXERS**

Mashed potatoes cooked from scratch are only the beginning!

Hobart Legacy Mixers, countertop, 12 and 20 quart

**NOTE:** Manufacturers update models and model numbers frequently. The equipment models recommended here were available as of 2018.

Source: Wisconsin Farm to School.

## Monthly Menu, Bristol Elementary School, VI



### 5 Steps to Implementing a Taste Test Program in Your School

### 1. GET PARTNERS

Assemble a team to plan how, what, and where to do taste tests. Make sure to enlist school nutrition staff for their expertise. Get students involved, too! (See #4.) Maybe every month a classroom can sign up and work with the school nutrition personnel to decide what food to test and how to set it up in the cafeteria.

### 2. KNOW YOUR GOALS

Before a taste test, establish a few goals that are easy to communicate. Are you trying to expand children's food choices? Encourage more healthy snack or lunch choices brought from home? Do you want to broaden the school lunch or breakfast menu? Introduce local foods? Whatever your goals, communicate them school-wide.

### 3. THINK THROUGH THE DETAILS

Decide with your team what food you want to feature. Where will you get it? (Perhaps your school wants to build a relationship with a nearby farm where you know you can get local potatoes.) What recipe will you try? (roasted sweet potatoes, maybe?) How much will the ingredients cost? (Will the farmer donate potatoes or is the school nutrition staff willing to spend extra money for them?) Does the kitchen have the staff and equipment to prepare the food? How will the food be ordered? Who will prepare it? If the students like the new food, is the recipe repeatable on the lunch or breakfast line? Again, be sure to meet and talk through all these questions with the school food nutrition director and cooking staff.

### 4. OFFER HANDS-ON EXPERIENCES

Children learn best when they are actively involved and using their hands. Children who help prepare food for a taste test are more likely to try it and like it than children who have not been involved. If at all possible, include monthly hands-on lessons in the classroom or cafeteria so that students can participate in making the food for the taste tests.

### 5. MARKET!

Invite families to help, either in your weekly newsletter or through a special invitation. Invite the principal, business manager, superintendent, and/or school board members. You don't have to have an extraordinary event; just showing people what you are doing on a regular basis makes an impression.

### Cafeteria Tips for Successful Taste Tests

Taste-testing can highlight a Harvest of the Month food item, be part of the Fresh Fruit and Vegetable Program (FFVP), or be tied to curriculum. Here are some suggestions and tips we have collected over the years from schools around the country!

### **CHOOSE FOODS THAT:**

- Increase consumption of whole grains, fruits, and vegetables
- Can be featured on the menu as a regular breakfast or lunch item
- Meet school food program requirements for nutrition, presentation, and cost
- Always start with the school nutrition personnel. They can help you decide what foods to try based on what they know about the students (they know everyone!).
- Ask the PTO or a local business to help purchase the food.
- Start with regular monthly taste tests of simple, affordable food, so it's easy to repeat if students like it. Fresh-cut items work well.
- Find families or community volunteers (e.g., PTO members) who can coordinate taste tests a few hours a month, or related classroom activities. School nutrition personnel are unlikely to have the time to do this, although they can participate in some parts.
- If possible, work with teachers and school nutrition personnel to have a small group of students help prepare the food. Remember, "If they make it, they will eat it."
- Use local foods when possible and invite your local farmer or processor to join your taste test to add excitement.

- Offer small servings ("Try-It Bites") in a positive, non-coercive atmosphere.
- Survey students to capture student voice: "Tried it," "Liked it," "Don't like it yet."
- Advertise taste tests in the school newsletter or in letters home to families, announce the results, and share what the next steps are for that new food.
- Openly appreciate efforts made, and celebrate successes and lessons learned.
- Assemble a team to help you stay committed and to think about the big picture (e.g., what time-consuming foods need to be prepped now, for a meal in a day or two?).
- Invite teachers to try the food in front of the students. They're great role models!
- Always give quick pointers about food safety ("wash your hands!"), and show proper use of kitchen tools to ensure safe behavior.

### Classroom Tips for Successful Taste Tests

Taste-testing can highlight a Harvest of the Month food item, be part of the Fresh Fruit and Vegetable Program (FFVP), or be tied to curriculum. Here are some suggestions and tips we have collected over the years from schools around the country!

### **CHOOSE FOODS THAT:**

- Increase consumption of whole grains, fruits, and vegetables
- Can be featured on the menu as a regular breakfast or lunch item
- Meet school food program requirements for nutrition, presentation, and cost
- Try short, informal sessions.
- Find a time each week or month that fits well into the class schedule. Snack time is often a good time.
- Keep it simple! Roasted slices of delicata squash, different types of lettuce, or a sampling of locally grown apples can be part of a dynamic tastetesting lesson.
- Keep the school nutrition personnel aware and involved—they might be able to provide some of the raw ingredients and feature the foods on their menus.
- Show where your local food is grown on a state or county map. (Compare it to bananas grown in South America!)
- Integrate taste tests into the curriculum. In math, for example, show students a parsnip, have them estimate the weight, then have them weigh it. Ask younger children to guess the color of a peeled vegetable before it is peeled.

- Try foods that are (or could be) served in the school food program.
- Always give quick pointers about food safety ("wash your hands!"), and show proper use of kitchen tools to ensure safe behavior.
- Invite a farmer or processor to bring his or her local food and discuss how it is grown or made.
- Be sure to communicate regularly with families about what their children are trying—they won't believe it!
- Invite classes to experiment with recipes and create names for new dressings and dips.
- Always check with the school nutrition personnel before you borrow any equipment and be sure to clean it and return it.

### Developing Farm to School Curriculum

*Adapted from* Shelburne Farms Guide to Education for Sustainability, based on Understanding by Design: Guide to Creating High-Quality Units, by Wiggins & McTighe

This appendix item specifically helps educators develop curriculum that connects food, farming, and nutrition to students' lives and their communities, and supports the application of learning in a variety of settings. The steps are based on the principles of "Backward Design" in *Understanding by Design*.

### **STAGE Identify desired** results

targeted standards, enduring understandings, essential auestions

**STAGE Determine** acceptable onaoina & culminatina



**STAGE Plan learning opportunities** focusing questions, continuous assessment,

### **STAGE 1: IDENTIFY DESIRED RESULTS**

Beginning the curriculum design process with your intended outcomes guides the development of relevant learning opportunities and assessments. It can be tempting to begin with a learning activity that you are familiar with and that your students enjoy doing, and then try to identify standards to fit the activity. However, beginning with the end in mind ensures that student outcomes purposefully drive the development of the learning opportunities and assessments. You can always weave your favorite activity in later, once you know what you hope students will gain from it.

Target standards and proficiencies before you adapt or add to the learning activities and assessments when you modify or enhance an existing unit to include FTS. This will help you see how FTS addresses standards in multiple disciplines, such as science, social studies, STEM, the arts, career and technical education, and physical education. Whether you use national standards, district curricula, or proficiency-based graduate requirements, FTS themes and topics allow students to interact with concepts in a real-world context, engage in learning with their full senses, and turn their understanding into action.

**Enduring understandings** are the foundational ideas that you want students to remember from a unit of study. They focus on larger concepts or principles, not simply facts, and are transferable to new contexts or topics. A standard itself might contain language that describes the enduring understanding.

**Example:** The Common Core ELA standard for eighth grade (CCSS.ELA-LITERACY.SL.8.1) says "Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grade 8 topics, texts, and issues, building on others' ideas and expressing their own clearly." The enduring understanding might be: Acknowledging diverse perspectives helps us build empathy, value others, and deepen our own thinking.

Once you have defined the enduring understandings for a unit, you can identify what skills and background knowledge students need. In the example above, students will likely need to understand that people have multiple viewpoints and opinions on complex issues such as sustainable agriculture and that diversity of thinking helps us to consider issues more broadly and deeply. They will also need to practice reflection, open-ended questioning, and listening skills.

Enduring understandings are not limited to the language in the standards or grade expectations. They

can be defined by community, family, student, and school values and priorities as well.

Understanding by Design offers four filters to help craft enduring understandings:

- To what extent is the content, topic, or skill relevant and transferable to the larger world (does it connect to a big idea)?
- Is this a foundational concept or principle of the content area?
- What about this content or topic is often misunderstood by students and needs to be uncovered?
- How can the topic, content, and learning opportunities engage students?

The table on p. 116, "Farm to School & Big Ideas," offers some ideas on connecting food system education to concepts such as cycles, diversity, and interdependence.

**Essential questions**, as defined by curriculum expert Heidi Hayes Jacobs, are the "essence of what you believe students should examine and know in the short time they have with you." Instead of statements telling students what they will learn, questions help engage students in learning, offering opportunities for student voice, inquiry, investigation, and interpretation. Essential questions may be thought of as an "umbrella" for the content and skills you will uncover in an entire unit or the academic year.

The essential question can put the concepts into the context of your topic or subject area. As an overarching question for the unit or yearlong study, it will bridge learning opportunities or multiple units. A great question can place the students themselves squarely in the middle of the study, preparing them to actively participate in their own learning, as well as in their community. In general, essential questions have no clear correct answer. They raise other questions, they recur naturally, and they address foundational principles and concepts. Involving students in crafting the essential question builds ownership, and is in itself a powerful learning opportunity.

To help you and your students develop an essential question, ask yourself, Does the question:

- Address FTS with personal or community relevance?
- Present possibilities for personal and social action in school, in the cafeteria, or in the community?
- Cut across a wide range of knowledge, skills, and resources?
- Pose opportunities for in-depth/extended work?
- Present possibilities for a wide variety of teaching and learning activities?
- Allow for students to sufficiently explore the topic, given time and resources?
- Invite opportunities for culminating teaching and learning activities and assessments in which students demonstrate how they have grappled with the question?

Your work throughout the unit—each learning opportunity, discussion, and assessment—will help students build their understanding and formulate ideas to effectively respond to the essential question. Giving students the chance to reflect throughout the unit (in a learning notebook, online journal, or class discussion) helps them build understanding, and keeps you aware of their progress. Done intentionally, organized reflection can be the basis of a series of formative assessments, allowing both teacher and students to monitor progress.

### STAGE 2: DETERMINE ACCEPTABLE EVIDENCE

The assessment tools you use to measure your students' knowledge, skills, and attitudes in FTS are like those used in authentic assessment of any other subject. Define the criteria or the measurable pieces of the standards at the beginning of the design process to help you develop learning experiences that can be evaluated effectively for student understanding.

While engaging in this process, ask yourself:

- Have I helped the students put the criteria into words they can understand?
- Do the criteria reflect what is most important to be learned in each activity or the unit as a whole (i.e., is it an enduring understanding)?

It's helpful to choose a particular aspect of the criteria and turn it into a concrete learning expectation; e.g., "Students will be able to name at least six parts of the food system in their community and describe what they need to work better or to keep on working well."

### Plan the Culminating Activity (Final Assessment)

In keeping with the "Backward Design" process, crafting the final assessment (activity, performance, experiment, written or oral presentation, etc.) before any other learning activities is a good way to think about the skills and knowledge students will need to acquire along the way to help them achieve understanding. The culminating activity will give students a chance to engage in and respond to the essential question, and can often be an occasion to share their knowledge with the community. The product or performance should be designed to allow you to assess the key learning outcomes and criteria you have identified. An assessment rubric can specifically address the learning outcomes and criteria.

At the end of the design process, revisit the criteria to ensure that the learning activities (Stage 3) support what you will assess.

### STAGE 3: PLAN LEARNING OPPORTUNITIES

Learning opportunities, traditionally referred to as lesson plans, help students gain content understanding and acquire or strengthen skills identified in Stage 1 of the design process. Learning opportunities should be carefully considered and sequenced to build toward students' ability to respond to the unit's essential question in a summative assessment.

### **Focusing Questions**

While the essential question you choose in Stage 1 is the overarching question, more specific questions target the content and skills that students need to be able to later respond to the essential question. Focusing questions launch, shape, and assess individual lessons. They offer an intriguing way to open activities, connect to prior learning, and reflect and summarize learning.

Focusing questions about food, farming, and nutrition put big ideas into the context of your topic or subject area. Like essential questions, they should be important and relevant to the learner, and help organize the search for answers. The focusing questions frame the learning, engage the learner, link to other questions, and guide the exploration and uncovering of important ideas. Putting "we" in the question ("What can we...?" "How can we...?" "What is our...?") centers the learner in the activity and stimulates engagement.

For example, to work toward Next Generation Science Standard 5-LS2-1: "Develop a model to describe the movement of matter among plants, animals, decomposers, and the environment," the teacher and students might develop focusing questions such as:

- What is a food system?
- What are the roles in the food system?
- What role do we play in the food system?
- What role do decomposers have in a food system?
- What matter is there in a food system?
- What makes a food system healthy?
- What do we do that models our understanding of how matter moves in the food system?
- What solutions can we design to ensure a healthy food system?

In this example, each focusing question leads to activities designed to help students learn more about food systems. Such activities could include reading and book discussions, teacher or guest presentations, art

projects, or field trips to local farms, compost facilities, other places within the food system, and so on.

Focusing questions can drive the ongoing assessment needed to support and evaluate student progress. During each lesson, students work on some activity or product—data collection, drawings, lists, poems, art projects, reports. These artifacts can be used as evidence of what they have learned, and can be assessed using criteria established beforehand. Each week's work might culminate in a group project, written piece, drawing, science notebook entry, or class discussion that responds to the focusing question. As the unit progresses, the sequence of learning opportunities and assessments build toward an enduring understanding of the essential question, "How can we create a food system that reflects the principle of how matter cycles in an ecosystem?"

### Perform Continuous Assessment

The foremost purpose of assessment is to help students and teachers understand where they are now and where they need to go. Assessment does not happen only at the culmination of a unit in order to assign a grade. Within the learning opportunities, perform ongoing formative assessments of skills and content to help you determine what learning opportunity students need next or which ones should be revisited. You might assess journal entries, review science notebooks, give quizzes, or use discussions as opportunities for assessment. Varying the types of assessment you do throughout a unit helps students demonstrate different skills and learning styles. Products, performances, tasks with scoring guides, peer review, self-assessment, and anecdotal observations are all valid methods.

Opportunities for authentic assessment are often present with culminating projects or performances. For example, when students share their knowledge with community members by presenting before the school board, they are demonstrating their learning. Providing students with assessment criteria at the beginning of a unit or project helps them work

toward the targeted goals with focus. Frequently referring to a unit rubric or other generalized assessment tool that becomes familiar to students can be useful in evaluating student progress because it makes growth visible over time.

In Stage 2 you chose criteria to assess students' understanding of FTS content and skills. As you plan each learning opportunity, make sure it supports students in being able to respond to the essential question. Here are some guiding questions to consider:

- Do the learning opportunities enable students to acquire the specific skills and knowledge that I intended?
- Are the most important learning goals reflected in the assessment criteria?
- Are the focusing questions interesting and relevant to the students?
- Do the formative assessments allow for students to monitor their own progress?
- Am I able to be flexible and responsive to formative assessment data (can I adapt my unit plan to respond to student needs along the way)?

### List Resources

In the final stage of design, list resources you will use to align with and enrich learning throughout the unit. Some resources to consider:

- Text, videos, websites
- Organizations, guest speakers, resource people
- Community events, farm field trips, restaurants/ food processors, and other FTS places

Thoughtfully selecting resources will directly impact the learning outcome and better support your efforts as the teacher-designer. After all, the way in which we approach curriculum design is a critical element of FTS.

# Farm to School and Big Ideas

Adapted with permission from Shelburne Farms

Concept / Grade Level	Farm to School Connection / Curricular Idea
Community PreK– Kindergarten	Students explore the concept of community by considering the roles that people play to get food from farm to table. Students explore their own role in the food system and, as "community helpers," grow seedlings for the school garden as a service project.  ESSENTIAL QUESTION: What is my responsibility to our community?
Cycles 1st–2nd Grade	Students explore cycles all around them—investigating everything from pollinating insects to seasonal cycles—and how they impact their own lives. Students learn about the local agricultural cycles of maple sugaring and apple growing, and engage with local farmers and community businesses involved in these product cycles.  ESSENTIAL QUESTION: What cycles can we find in our community?
Systems  3rd–4th Grade	Students investigate local food systems by tracing locally available products back to their source and evaluating and assessing the impact of different food choices. Through working with local farmers, students also explore farming practices to better understand the importance of ecological diversity. Students develop skills for reading and writing informational texts by creating informational posters about the local food system for display at a grocery store.  ESSENTIAL QUESTION: How does change happen in a system?

continued

### Concept / Grade Level

### Farm to School Connection / Curricular Idea

### Change & Adaptation

### 5th-6th Grade

Students learn about change over time as they explore biological and social adaptation and change. They research geologic forces and how bedrock influences soil types. They study early settlements in their community to understand why people settled near rivers and on rich agricultural soils. They study regional human migration patterns through time and how shifting demographics and diversity have shaped the local community. Students also explore the impacts of human migration on the natural/agricultural world. As a culminating project, students create a museum display with maps illustrating how their community has changed over time.

### **ESSENTIAL QUESTION:** In what ways does the land shape culture?

### Interdependence

### 7th-8th Grade

Students explore economics by launching a small food-focused business with their classmates. With the help of local business people, they conduct market research, create a business plan, and track data on costs and revenues. Finally, students write annual reports to shareholders, describing the economic, environmental, and social outcomes of their business.

### **ESSENTIAL QUESTION:**

In what ways do we depend on natural systems?

### Limits

### 9th-10th Grade

Students are immersed in a study of sustainable agriculture and water: watersheds, management, rights, natural limits, and equity issues. They compare local water use and regulation to locales with similar demographics and geography, both nationally and internationally. Students then make recommendations to local regulating agencies on resource management.

### **ESSENTIAL QUESTION: What can communities learn** from natural systems to improve our common future?

### **Long Term Effects**

### 11th-12th Grade

Students collaborate with the school nutrition director to analyze food purchasing in the school community and evaluate locally available options. They consider the economic, ecological, and social justice issues related to food purchasing, such as fair trade and ecological packaging. Students research opportunities to increase local products served and present their findings/ recommendations to the school.

### **ESSENTIAL QUESTION:** How might the ways we live today impact how people will live in the future?

# Understanding by Design Unit Template v2.1

STAGE 1: Desired Results	d Results		
Established Goals	Meaning		
	BIG IDEAS	ENDURING UNDERSTANDINGS Students will understand that	<b>ESSENTIAL QUESTIONS</b> Students will keep considering
	Acquisition		The unit incorporates food,
Students will have the opportunity to:  grow/cultivate harvest taste cook engage in the inquiry process	Students will know	Students will be skilled at	
work with a	Transfer		The unit uses the campus/
(farmer, baker, etc.)  — participate in a community event to share their learning	Students will be able to indepen	ble to independently use their learning to	cafeteria or community when

Adapted with permission from the Understanding by Design Guide to Creating High-Quality Units by Grant Wiggins and Jay McTighe, 2011.

# Understanding by Design Unit Template v2.1 continued

		PERFORMANCE TASKS	Students will show that they really understand by evidence of	OTHER EVIDENCE	Students will show they have achieved Stage 1 goals by
vidence	EVALUATIVE CRITERIA				
STAGE 2: Evidence	CODE (Link to Stage 1)				

Adapted with permission from the Understanding by Design Guide to Creating High-Quality Units by Grant Wiggins and Jay McTighe, 2011.

# Understanding by Design Unit Template v2.1 continued

	litudes using	Progress Monitoring	
arning Plan	Pre-assessment of driving knowledge, skill, understandings, and attitudes using surveys and simulations	Learning Events	Student success at fransfer, meaning, and acquisition depends on
STAGE <b>3</b> : Learning Plan	CODE (Linked to Goals, Big Ideas, and Lens)		

Adapted with permission from the Understanding by Design Guide to Creating High-Quality Units by Grant Wiggins and Jay McTighe, 2011.

# Tips for Cooking with Children

### **ELIMINATE INTERFERENCES**

Tie back long hair, pull up long sleeves, and secure other articles of clothing that could pose safety or hygiene risks.

### PRACTICE GOOD HAND HYGIENE

Wash hands with soap and warm water before touching any food or utensils. Gloves are not required if the food you are preparing will ultimately be cooked, but they are recommended if the food will be served raw. Encourage arm sneezing, and stress the importance of not touching your face, hair, etc. once hands are clean.

### MAINTAIN A CLEAN COOKING AREA

Start with a clean workspace. Clean all countertops and surfaces before preparing food on them.

### **SET UP EARLY**

Prepare work stations ahead of time with ingredients and proper tools.

### **WORK IN SMALL GROUPS**

Cooking with children is most successful when they can work in small groups of no more than five, ideally with an adult per group. Younger children benefit from even smaller groups. Increase the adult-child ratio by involving parent volunteers in classroom cooking activities.

### HAVE A JOB FOR EVERYONE

Include every student in the cooking process by assigning everyone a job. This may mean giving each student a small task or even making up a job. Tasks can include reading the recipe aloud, checking to be sure you have included all the ingredients, washing produce or dishes, drying dishes, measuring, stirring, or helping another student. Every job is important and children are easily excited by the task at hand.

### **TEACH KNIFE SAFETY**

Be careful with knives and other sharp tools such as graters and peelers. Instill the importance of responsibility that comes with handling knives and kitchen equipment. Teach children the proper ways to hold, wash, carry, and store these tools. Most children take this responsibility very seriously.

### **USE THE RIGHT TOOL FOR THE JOB**

Kids can cut produce, as long as you give them a safe and appropriate knife for the task. To start, use plastic disposable knives, plastic knives from a kid's set, or butter or dinner knives with blunt serrated edges and rounded points. These knives can readily cut herbs, peeled fruit, and soft vegetables like zucchini, cucumbers, and tomatoes. Sometimes a sharper or larger knife is more appropriate for cutting harder vegetables or foods. With proper use, it can be a safer option than a blunt, inadequate tool. Select a tool that is appropriate for the job. Use your discretion in gauging the readiness of your students for using more professional cutting tools and always monitor use closely. For any knife use, demonstrate proper cutting technique first.

### **USE SAFE CUTTING TECHNIQUES**

- Place a wet paper towel under your cutting board to prevent it from slipping around on the table.
- Use a claw-like grip (with fingers curled slightly under) to hold the food steady on the cutting board. The knuckles act as a bumper, and fingertips are kept away from the knife blade.
- Before cutting rounded objects, such as potatoes, carrots, or zucchini, give the object a flat edge so that it does not roll around on the board. Do this by cutting a small slice from one side of the food so that it can lie flat on your work surface.
- Tools should stay with the cutting board.

### **DEMONSTRATE**

Always demonstrate the correct cut, size, technique, etc. before handing the task over to the students.

### **READ THE RECIPE**

Ask a child to read each instruction aloud as you prepare the food. Students will get a sense of turntaking and sequencing from following directions in order. This also helps to pace the process so that you can focus on one job at a time and avoid multiple distractions.

### MAKE CLEANUP PART OF THE ROUTINE

Cleaning up is an important part of the cooking process, and students may love using a mop or dustpan as much as they love the food preparation. But save cleaning until the cake is in the oven!

### TASTE!

Have the students taste the food they are preparing. Encourage the practice of trying new things, but never force anyone to eat something against their will. If someone is really hesitant to taste the food, offer the option of a "No-thank-you bite." You encourage students to try one small bite and give them permission to then say, "No, thank you," to more. But at least they have tried the food! (Remember to keep cleanliness in mind when tasting the food, too. Use clean tasting utensils to prevent contamination.)

### **KEEP TRYING NEW FOODS**

Model healthy choices by eating food (especially new foods!) with the students. Establish a routine with students for sitting down and eating food together as a group so new foods become routine, too.

### "DON'T YUCK MY YUM"

Remind students that we do not say negative things about how something tastes because it might offend someone and discourage others from trying something new. If a student tries something that they do not like, request that they quietly spit it out in a napkin so other students have an opportunity to form their own opinions. Encourage students to use respectful language like "I don't care for it." Remind students that sometimes it takes trying new things 10 times before you begin to like them.

From: Farm to School: Highlighting Local Fruits and Vegetables: Materials to Inspire Your USDA Fresh Fruit & Vegetable Program, VT FEED and Vermont Agency of Education. Funded by a USDA Specialty Crop Block Grant through Vermont Agency of Agriculture, Food, & Markets.

# Cooking Cart Equipment Checklist

### **APPLIANCES**

- Induction range
- Blender
- Electric griddle
- Immersion blender
- Hand mixer

### **COOKING UTENSILS**

- Can opener
- Lemon/lime squeezer (2)
- Cheese grater (5)
- Measuring spoon set (6)
- Measuring cup sets (5)
- Rolling pin (2)
- Salad spinner
- Wooden spoon (4)
- Sandwich spreader (5)
- Vegetable peeler (5)
- Large whisk (4)
- Small whisk (4)
- Chef's knife
- Paring knife (10)
- Plastic lettuce knife (5)
- Cutting boards (10)
- Rubber spatulas (10)
- Turners (10)
- Slotted serving spoons (4)
- Solid serving spoons (6)
- Ladle
- Tongs
- Apple peeler/corer/slicer (5)
- Apple slicer (5)
- Colander
- Mixing bowls (3)

### POTS AND PANS

- Stockpot with lid
- Steamer basket for stockpot
- Saute pan with lid
- Large saucepan with lid
- Small saucepan with lid
- Baking dish (2)
- Baking sheet (2)
- Loaf pan
- Muffin pan (2)

### **TABLEWARE**

- Melamine plates (20)
- Melamine bowls (20)
- Dinner spoons (24)
- Dinner forks (24)
- Dinner knives (24)

### **MISCELLANEOUS**

- First aid kit
- Potholders (4)
- Aprons (20)
- Plastic lined tablecloths (5)
- Kitchen towels (4)
- Cleaning cloths
- Tote box (for dirty dishes)
- Dishwashing liquid

# 10 Best Practices for School Community Gardens

### 1. LOCATION, LOCATION, LOCATION

The most sustainable gardens occupy a highly visible site on or next to school grounds. The site should be well drained with plenty of sunlight, access to water, and minimal soil compaction. Always test soil!

### 2. PERMANENCE

A colorful and durable sign and a sturdy fence are good first steps toward permanence. Clearly posted rules, regular updates in school newsletters, and successful fundraising and accounting are also key.

### 3. ORGANIC GARDENING

Consider organic practices for the health of your garden and community by avoiding synthetic pesticides and chemical fertilizers. Increase soil fertility through crop rotation, cover crops, and compost.

### 4. CROP DIVERSITY

Plant a variety of vegetables and flowers to support a wide range of beneficial insects and soil microorganisms. Experiment with companion plants that enhance growth or suppress pests.

### 5. CURRICULUM INTEGRATION

Work with administrators, teachers, and community partners to integrate the garden into farm to school, Ag in the Classroom, nutrition programs, and other subjects.

### 6. ORGANIZATION

A skilled coordinator and steering committee, effective communications, shared planning and decision making, and youth engagement are essential to a sustainable school community garden.

### 7. ADMINISTRATIVE AND SCHOOL BOARD SUPPORT

Raise awareness by making a presentation and conducting a garden taste test at the next school board meeting or by hosting a school event in the garden and inviting your school board to attend or speak.

### 8. COMMITMENT

Work for continuous improvement in your garden and educational program. Seek feedback.

### 9. COMMUNITY ACCESS

Involve the community in your garden, especially during the summer. Consider individual garden beds or plots for interested families and weekly summer gathering times.

### 10. CELEBRATION AND ACKNOWLEDGMENT

Thank sponsors, volunteers, and donors, and share surplus produce and flowers with neighbors and people in need. Build social capital through garden potlucks and harvest celebrations. Have fun!

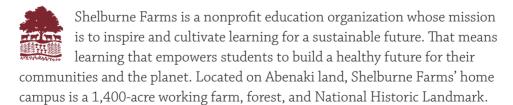
Source: Vermont Community Garden Network. Used with permission.

## **VT FEED**

Vermont Food Education Every Day (VT FEED) began in 2000 as a collaborative farm to school project of three nonprofits: the Northeast Organic Farming Association of Vermont (NOFA-VT), Foodworks at Two Rivers, and Shelburne Farms. Today, Shelburne Farms and NOFA-VT provide leadership, resources, and support to an evolving farm to school movement, providing hundreds of school communities and producers with technical assistance, educational resources, and professional development in order to increase local, healthy food choices.

### VT FEED believes that:

- In a sustainable food system, everyone has access to nutritious, healthy, affordable foods and opportunities to produce it.
- Students who are well-fed with nutritious foods are able to be more engaged and successful in their learning.
- Farm to school gives students the knowledge, skills, and values to make healthy choices for themselves and their communities.
- Local food systems are essential to the health of the local economy, environment, and communities.
- A healthy food system is critical to a sustainable future.
- School systems change when a diversity of partners and the school community align to invest in creating change together.



The Northeast Organic Farming Association of Vermont is a nonprofit association of farmers, gardeners, and consumers. Its mission is to promote organic practices to build an economically viable, ecologically

sound, and socially just Vermont agricultural system that benefits all living things.



This guide is lovingly dedicated to

### **ENID WONNACOTT**

(1961-2019)

Enid planted, tended, and nurtured
the VT FEED project during her entire tenure
as executive director of NOFA-Vermont.
Her passion for agriculture, dedication to our communities,
and love for Vermont were unparalleled.
The seeds that Enid planted will forever nourish us.

Thank you, Enid!

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