Vermont FEED's Spectrum of Farm to School Opportunities, Grades PK–12


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This tool suggests how a program could be woven together to create a comprehensive spectrum of opportunities within Farm to School or a school food systems focus. Vermont FEED staff compiled this tool to support a whole school approach for Farm to School with a practical experiential program for youth across grade levels. It is based on real world examples from schools and the Vermont FEED model of change that integrates the 3Cs: connecting classrooms, communities, and cafeterias. We have been inspired by the innovations of farm to school teams and individual educators to purposefully create opportunities for youth to engage in food systems PK-12. We encourage teams to use this as inspiration and then to seek youth voice and community input to create their own unique progression.

Inspired by and adapted from the Ladder of Responsibility in "Childhood and Nature: Design Principles for Educators" by David Sobel; Stenhouse Publishers, 2008.

Grade	Activity
PreK	**Tea Garden Tenders** Teachers and students engage in a seed to tea project each year by starting seeds, transplanting perennial and annual herb plant seedlings, tending, harvesting, drying, "drinking", and saving seeds. The tea garden continues to expand every year with plans for selling loose tea as a farm to school fundraiser in the future.
K	**Pollinator Garden Caretakers** Everyone knows that pollinators are essential to the food system, at least these kindergarteners do! Together with their teachers, students work to create pollinator gardens on campus to attract bees, butterflies, beetles, birds, and moths. Students take home pollinator plant seeds to grow at home or in their neighborhoods.

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Grade	Activity
1st	**Seasonal Cycle Watchers** In first grade, students learn about weather and begin to notice patterns weekly, seasonally, and throughout the school year. Students share "garden and outdoor play" weather reports on the school website and via the weekly school assembly.
2nd	**Medicinal Herb Gardeners & Herbal Remedy Makers** In partnership with the school nurse and an indigenous educator, students and teachers gather herbs from the tea and pollinator gardens and make herbal remedies for the school nurse and classroom first aid kits—from calendula salve for scrapes, to lemon balm tincture for upset stomachs.
3rd	**Sweet Makers: Caring for the Bees & Maple Sugar Trees** Third graders have a big responsibility taking care of the sugaring equipment and the beehives. While the hives and trees are off campus, students boil with a mobile sugarhouse and extract honey on campus. All of the sweet stuff is served in the breakfast and lunch program. Seasonally they visit a local apiary and sugarbush and engage in stewardship projects such as planting pollinator-friendly plants or building new hive boxes.
4th	**Soil Stewards & Compost Caretakers** Good soil is the foundation for plants to thrive, so fourth graders play an essential role by focusing on soil and compost. As scientists they test different soil parameters such as pH, nutrients, soil type, and structure. They make recommendations to the school's garden teams about the need for adding compost or other organic amendments. Working with a local solid waste agency, they annually test the compost to ensure it's ready for application to garden beds and school trees. Teachers and students work with school lunch staff to design a kitchen composting program and post-consumer cafeteria collection program. Students teach others about what's compostable and what isn't. They also staff the post-lunch separation process. When the program is established, classroom-based mini collection systems are developed.

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5th	**Culturally Sustaining & Revitalizing Gardeners** Students and teachers partner with Indigenous and new immigrant families to develop a recipe book called **Celebrating Our Roots**. The recipe book weaves together family, community, gardening, cooking, and the curriculum. Students work with the school's outdoor committee to include culturally significant crops into the gardens, partner with families and organizations to learn about food traditions, and develop a recipe book. Family recipes are adapted and served in the cafeteria and feature fresh garden products. Additionally, students and teachers partnered with indigenous elders, educators, and artists to develop signage that clearly announces the presence of indigenous people throughout time. Surrounding the signs are tiles created by pressing plants that are culturally significant into clay. Students learn about the characteristics, uses, or biology of each of these important plants.
6th	**Climate Change Team** Teachers and students get curious about how they can help minimize climate impacts of the school's operations. They accomplish this with yearly projects to monitor and reduce food waste, refrigeration, trash, and water consumption in the school. Students suggest changes in student, teacher, and staff behavior to reduce consumption. Students and teachers work with building maintenance and school nutrition staff to use the products and processes with reduced climate impacts—from prioritizing local purchasing, to installing a bulk milk machine to reduce waste.
7th	**Chickenologists** As researchers, designers, and farmers, students focus on protein production in our food system. They become stewards of the school chicken flock and their well-being. This responsibility includes meeting the chickens' basic needs in terms of food, shelter, water, and cleanliness. Additionally, as the 7th graders investigate the human-chicken dynamic, they engage with emerging problems and design and implement innovative solutions. As the school experts in chickenology, the students also become the communicators, marketers, and educators for all news from the coop!

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8th	**Cafeteria Partners** Students work in partnership with food service staff and the health teacher or wellness director to seek out opportunities for improvement in the cafeteria. Through this collaboration, the group develops a list of quality indicators for the cafeteria experience, gathers and analyzes data, and then plans a project for improvement. One group created a "Try It Tuesdays" program in which a new and local food was introduced monthly through taste tests. Students were in charge of promoting awareness of the program and the new food, as well as collecting data for the food service staff about the appeal of each new food item. Another project emerged out of a deepened awareness of trauma informed practices, with the 8th graders and school nutrition staff developing and implementing a number of strategies to support students who experience trauma related to food and the cafeteria.
9th	**Food Justice Team** Students engage in an interdisciplinary course that focuses on food systems and food justice. Each year students work with their teachers and the school nutrition director to find ways to make their school nutrition program align with environmental and social justice issues. From purchasing from BIPOC producers and businesses, to supporting the "Milk with Dignity" program. Students also collaborate with community partners to ensure equitable food access during the summer months.
10–12th	**Food Systems Capstone & Personalized Learning Plans** High school students work on capstone projects and personalized learning plans that align with local food systems and graduation requirements. Students can earn credit and a stipend by working in the school's greenhouse, aquaponics program, gardens, and school nutrition program. The work-based program is aligned with a food systems course where students can also earn academic credit. Another option offers students an opportunity to work with an agricultural, community-based mentor for 30 hours during the academic year. Finally, students engage in three capstone projects, and one of them is aligned with food systems themes/topics. As an example the "communication capstone" could be focused on food systems where students take a deep dive into food justice, interview community members engaged in a local food justice network, and then create short videos about food justice in the area.

Grade level examples informed by: Cabot PreK Program (VT), Newbrook Elementary School (VT) Ladder of Farm to School, High School for Environmental Studies (NY) Food Systems course, Champlain Elementary School (VT), Food Connects (VT) "Trauma Informed Practices in Farm to School" webinar, Winooski High School and Shelburne Farms' (VT) summer learning program, and Maplewood Richmond Heights (MO) Chickenologist and Seed to Table programs.

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