Sustainable Agriculture Resources and Programs for K-12 Youth

Created January 2011 for the Sustainable Agriculture Research and Education (SARE) Program

Updated June 2022 by North Central Region SARE
This guide to sustainable agriculture educational opportunities for schoolchildren features more than 70 programs, resources, and curricula nationwide. From the Appalachian Sustainable Agriculture Project’s Growing Minds program linking the garden and agriculture in Appalachia, to The Food Project’s French Fries and the Food System, a year-round curriculum focusing on ways youth can better understand land and local food systems, you’ll find innovative and engaging programs and materials to teach youth of all ages about sustainable agriculture. Additional resources for Youth Educators are included.

This guide is organized by age group as shown.

- Adaptable for All Ages or for Multiple Age Groups
- Preschool, Kindergarten through 5th grade
- Middle School (6th through 8th grade)
- High School youth, young adult (9th through 12th grade and adult)
- For Youth Educators

Some of the curricula in this guide were created with the help of Sustainable Agriculture Research and Education (SARE) grants: see, http://www.sare.org. To read SARE grant reports about Youth Education or other sustainable agriculture topics, visit https://projects.sare.org.

About this resource: Many of the descriptions in this resource are excerpts from the websites or published materials produced by the programs mentioned. Programs are in bold and curricula are in italic.

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Adaptable for All Ages or for Multiple Age Groups

APPALACHIAN SUSTAINABLE AGRICULTURE PROJECT
306 W Haywood Street
Asheville, NC 28801
(828) 236-1282
https://asapconnections.org/resources/farm-to-school/
http://growing-minds.org/
Age Range: PreK-12 plus community college and university
Location: North Carolina

Appalachian Sustainable Agriculture Project (ASAP) is a nonprofit organization with a mission to help local farms thrive, link farmers to markets and supporters, and build healthy communities through connections to local food.

Growing Minds (GM) is ASAP’s holistic Farm to School Program. It offers farm to school and farm to preschool resources as well as training and technical assistance for teachers, school nutrition staff, parents, community members, and farmers/agriculture professionals in the Southern Appalachians. (The Growing Minds team is available for consulting outside their service area.) Resources include lesson plans and mini-grants for activities such as school gardens, local food cooking, farm field trips or farmer visits to the classroom, and local food in school cafeterias. GM also provides farm to school resources and training for future nutrition and early childhood education students.

CENTER FOR ECOLITERACY
The David Brower Center
2150 Allston Way, Suite 270
Berkeley, CA 94704-1377
(510) 845-4595
https://www.ecoliteracy.org/
Age range: K-12
Location: National

The Center for Ecoliteracy is a nonprofit organization that builds partnerships and the capacity of K–12 schools to support healthy, sustainable school communities and food systems change in schools. It is known for its work with school gardens and school lunches, and for integrating ecological principles and sustainability into school curricula. See the website for online resources. They offer books, teaching guides, and other resources including:

- *Big Ideas: Linking Food, Culture, Health, and the Environment*
- *Smart by Nature: Schooling for Sustainability*
- *Ecological Literacy: Educating Our Children for a Sustainable World*
- *Ecoliterate: How Educators Are Cultivating Emotional, Social, and Ecological Intelligence*
- *Rethinking School Lunch Guide*
COLUMBIA CENTER FOR URBAN AGRICULTURE (CCUA)
PO Box 1742
Columbia, MO 65205
(573) 514-4174
http://columbiaurbanag.org/
Age Range: K-12, young adult
Location: Missouri

CCUA is a nonprofit organization that works to enhance the local community’s health by connecting people to agriculture and the land through hands-on learning opportunities, from seed to plate. CCUA Youth education efforts include: **PLANTS** (Placing Learners, Agriculture, and Nature Together Sustainably) to engage learners of all ages in hands-on experiences that emphasize the connection between food, health, and the environment. Opportunities through this program include: Interactive Field Trips to Columbia’s Agricultural Park, a 10-acre park that includes a School House and youth garden space, urban ag production fields, food forest, and more. School, civic, and community groups have a choice of curriculum-aligned lessons (presented on- or off-site) on topics ranging from *Under your Feet* (soil) to *Everybody Eats* (food security). **Farm to School Partnership,** working with the Columbia Public Schools (CPS) to provide 3rd and 5th grade students in the district’s eight Title I elementary schools with hands-on lessons exploring the world of food. **Sprouts, Soil, and Worms,** a 2010 project to provide teachers with simple ways to engage youth in sustainable agriculture activities. This effort to expand CCUA youth education efforts for K-12 students was supported by an NCR-SARE Youth Educator grant. For insights on expanding youth programming, working with schools, and the curriculum created, see the final report at: YENC10-025 - Sprouts, Soil, and Worms.

CORNELL GARDEN-BASED LEARNING
Horticulture Section
School of Integrative Plant Science
Cornell University
135 Plant Sciences Building Ithaca, NY 14853
(607) 255-4568/1789
http://gardening.cals.cornell.edu
Age Range: 6th grade – young adult
Location: National

This program provides educators with research-based gardening resources and professional development opportunities to support active learning experiences for children, youth, adults, and communities. Programs, activities, and projects focus on the garden as the foundation for integrated learning and discovery across disciplines. Program tools, lessons and more are provided for free online. Lessons include curricula such as *Discovering Our Food System,* for ages 12-18 but adaptable to many ages, which helps youth better understand what the food system means to them, how it affects their community and their health, and ways they can influence the food system; *Project S.O.W. (Seeds of Wonder): Food Gardening with Justice in Mind,* for ages 13-19; and *Youth Grow,* online resources to help youth become food system leaders in their communities.
The Cultivating Community (CC) group strives to grow sustainable communities. They work in schools to build gardens and teach food and gardening classes to elementary students, and train teachers to incorporate food education into their curriculum. CC offers year-round programs for high school students based on the principle that youth are part of the solution. Teens in their leadership programs receive education on food systems and sustainability, grow food and distribute it to people in need, develop job skills, and practice community engagement. Many of the youth programs pay a stipend to youth for their participation.

EcoKids is a book written by Dan Chiras that provides case studies of children who are making a difference, offers a plan to help parents foster love for nature, teaches children the importance of environmental protection, and promotes environmental values and inspires action. The book includes short pieces that highlight serious problems such as global warming, along with positive solutions that can be read aloud to children, and activities for children and their families. EcoKids also contains a resource guide that lists helpful books, articles, videos, and organizations related to the material covered within its pages.

The Edible Schoolyard Project (ESP) is a nonprofit with a mission to transform public education by using organic school gardens, kitchens, and cafeterias to teach academic subjects as well as the values of nourishment, stewardship, and community. Edible education curricula and resources provide hands-on experiences that connect pre-K through high school students to food, nature, and each other, while addressing climate change, public health, and social inequality. The Edible Schoolyard Network is an online resource that helps connect educators and maps 1,000s of edible education programs around the U.S. and the world. The online Resource Library provides free lesson plans and materials created by ESP and their partners.
Elder Tree volunteers work to engage communities in sustainable agriculture, gardening, and nature education to promote human health, wholeness and well-being. Elder Tree is committed to offering forest farm programs that intentionally include and engage neurologically diverse children, youth and adults.

Elder Tree provides interactive online nature programs for early learners and is developing the Elder Tree Forest School in partnership with St. Paul the Apostle Orthodox Church in Dayton, Ohio. The Elder Tree Forest School is an experiential education program that inspires children and youth to explore the agricultural possibilities within the understory of the forest ecosystem. Through partnerships with the American Chestnut Foundation, Rural Action, Solid Ground Farm and Regenerate Garden Company students experiment with new methods for cultivating edible and medicinal forest crops such as chestnut, elderberry, mushrooms and ginseng.

Learn more about Elder Tree Forest School programs funded in part through an NCR-SARE Youth Educator grant at: YENC22-185 - Farming the Forest: Empowering youth to nourish our community through hands-on agroforestry

Food and Agriculture Organization of the United Nations
Viale delle Terme di Caracalla (Headquarters)
00153 Rome, Italy
(+39) 06 57051
FAO-HQ@fao.org
Age Range: Infant - Adult
Location: International

The Food and Agriculture Organization (FAO) is a specialized agency of the United Nations that leads international efforts to defeat hunger. FAO works in over 130 countries worldwide. They have publications and other resources to promote sustainable food systems.

Resources include: Feeding Minds, Fighting Hunger, a global education and advocacy initiative to introduce young people to the issues of hunger, malnutrition and food security. Developed by FAO, in collaboration with a broad coalition of UN agencies and other international and regional organizations, the initiative provides model lessons, in several languages, for teachers and an animated website and interactive forum for young people inside and outside the classroom. Sustainable healthy diets – Guiding principles is an FAO and World Health Organization (WHO) publication that promotes diets that are healthy, have low environmental impacts, are socio-culturally acceptable and economically accessible for all.
(PROJECT) FOOD, LAND & PEOPLE
7023 Alhambra Drive
Tallahassee, FL 32317
(850) 219-1175
http://www.foodlandpeople.org/
Age Range: PreK – 12th grade.
Location: National

Project Food, Land & People is a non-profit organization made up of volunteers from across the United States, who are dedicated to teaching the next generation about agriculture. For the past 30 years FLP has been offering exciting, standards-based curriculum to classrooms across the country, educating students of all backgrounds in rural, suburban, and urban school settings. FLP produces lessons written by educators for educators, of the highest quality that are piloted in classrooms to measure and strengthen their impact.

FLP developed: Project Food, Land, and People: Resources for Learning (2nd ed.), a national interdisciplinary environmental education curriculum. In order to receive the curriculum, you must participate in a 6-hour training. The curriculum was designed to educate students, teachers and citizens about the interrelationships between food, resources and people. It also contains background information for teacher preparation, lessons and hands-on activities reaching across multiple disciplines. It was developed, reviewed and tested by more than a thousand educators. The curriculum consists of 55 hands-on lesson plans for grades K-12. The collection includes plans for use in formal or non-formal education settings. Some resources are available in Spanish.

The FLP vision: envisions a future in which all people recognize the interdependence of agriculture, the environment, and human needs and work cooperatively to enhance sustainable agricultural practices and informed consumer choices.

THE FOOD TRUST
One Penn Center, Suite 900
1617 John F. Kennedy Boulevard
Philadelphia, PA 19103
(215) 575-0444
contact@thefoodtrust.org
http://www.thefoodtrust.org
Age range: Elementary – High school, parents, teachers
Location: Pennsylvania

The Food Trust (FT) is a nonprofit that was founded in Philadelphia, but has grown to work nationally and internationally. Their approach combines policy change with research and community-based programs to ensure that everyone has access to healthy, affordable food. FT works with neighborhoods, institutions, retailers, farmers, and policymakers. They focus on access, affordability and education as well as advocating for public policy solutions.

The FT Online Learning Hub has teacher resources including videos, lessons and more for pre-school through adult learners. Publications and reports by FT and their partners are also available and include resources like: Ready Set Grow: Emerging Strategies to Support Farm to Early Care and Education in Pennsylvania and the toolkit: The Kindergarten Initiative: A Healthy Start to a Healthy Life.
GrowNYC is a nonprofit organization that improves quality of life in New York City through environmental and food access programs. GrowNYC Education fosters a lifelong appreciation of nature, healthy food, and sustainability. Education programs that involve sustainable agriculture include: Greenmarket Education, a variety of activities and resources that connect school children with greenmarkets, farmers, and chefs through fun, interactive learning experiences. Seed to Plate Program, an interdisciplinary, standards-aligned nutrition education program for 5th and 6th graders that tells the story of local food and why it's important, inspiring healthy food choices and environmental leaders. Distance Learning options include Food Justice: in the Community, a curriculum for NYC high schoolers that can be adapted to all ages and places, and Farmstand Business curriculum which focuses on the importance of urban agriculture, setting up micro and small businesses, community agency, and the power of stewardship.

GRuB: GROWING HEATHLY FOOD, PEOPLE, AND COMMUNITIES
2016 Elliott Avenue NW
Olympia, WA 98502
(360) 753-5522
http://www.goodgrub.org
Age Range: K-12
Location: Thurston and Mason Counties, Washington

GRuB (Garden-Raised Bounty) is a nonprofit organization with a mission of growing healthy food, people, and communities. They work with residents of all ages, but primarily with marginalized young people, families with low incomes, students, seniors experiencing hunger, tribal communities, and veterans.

GRuB programs include the following.
GroundED: provides sustainable agriculture-based alternative education, employment, and drop-out prevention programs that engage local teens/young adults in land and community-based projects, working to break cycles of hunger, poverty, inequality, and oppression. The curriculum focuses on core themes of Farming Self, Farming Land, and Farming Community.
Pollinated Partners: provides training and support for new and existing youth programs nationwide to share program information that GRuB has learned from others and has developed over the years.
Tend, Gather and Grow (TGG): educates youth about wild edible and medicinal plants and the rich cultural traditions that surround them. The TGG toolkit includes curriculum, teaching videos, and other educational materials for community educators and K-12 instructors with an emphasis on serving Native and regional communities.
This nonprofit organization helps families become self-reliant, links communities, and helps bring sustainable agriculture and commerce to areas with a long history of poverty. Through the Passing on the Gift® program, families receive livestock and training then share both with another family. Heifer promotes agroecology and climate-smart farming as well as women-led smallholder farming.

See Schools under the “What You Can Do” heading on their website for online educational resources for teaching elementary and secondary students about the Heifer approach. These include: A Kid Can Change the World, as well as other free lesson plans and activities, virtual field trips, global study guides, and books in English and Spanish.

IATP works locally and globally at the intersection of policy and practice to ensure fair and sustainable food, farm and trade systems. Curricula they have developed include:

Farm to Childcare, which gives childcare providers a roadmap to start their own Farm to Childcare programs in order to connect young children with locally grown, minimally processed foods and the farmers who grow them. The curriculum was developed for preschool-age children by IATP in partnership with childcare provider company New Horizon Academy (NHA) with support from the Center for Prevention at Blue Cross and Blue Shield of Minnesota. The curriculum and associated materials include practical, experience-tested strategies to try out new approaches in child care settings including menu innovations, classroom activities and family engagement ideas.

Farm to School Youth Leadership Curriculum for 11th and 12th Grades which is designed to empower youth, teach them about their local food system, engage them in meaningful, hands-on learning activities that strengthen their school’s Farm to School program and link them directly with farmers in their community. The curriculum is comprised of 6 Lessons, each containing a lesson summary, a list of lesson activities, lesson outcomes, facilitator preparation notes, a materials and equipment list, additional resources, detailed facilitator descriptions of core activities, additional recommended activities, a chart of the lesson’s alignment to national and Minnesota academic standards, and worksheets for students. Lessons include themes such as “School Lunch: How Does it Really Work?” and “Communicating with Producers of Local Foods.”
IOWA STATE UNIVERSITY EXTENSION AND OUTREACH
Connecting Living & Learning
2150 Beardshear Hall
Ames, IA 50011-2031
(800) 262-3804
http://www.extension.iastate.edu/4h/CLL
Age Range: K – 12, teachers, adults
Location: Iowa

Iowa State University Extension and Outreach, along with Iowa 4-H, sponsors Connecting Learning & Living (CLL) curricula. CLL provides applicable garden-based nutritional, environmental, and agricultural education to youth of all ages, through hands-on lessons and activities that connect learning in classrooms and after-school programs with living on Planet Earth. CLL curriculums can be adapted for different ages and include:

- Growing in the Garden: K-3 Curriculum
- Growing in the Garden: Local Foods and Healthy Living Curriculum for youth gardening programs, community neighborhood gardens, farm to school programs, Ag in the Classroom and Master Gardening projects for grades 4-12

JOURNEY TO PLANET EARTH
Screenscope, Inc.
4330 Yuma Street NW
Washington, DC 20016
(202) 364-0055
http://screenscope.com/
Age Range: High School - Adults
Location: National

This PBS series of one-hour specials explores global environmental issues. In Land of Plenty, Land of Want the focus is on sustainable agriculture in four distinctly different countries. Viewers see farming methods used throughout the world and common problems faced by farmers. The Land of Plenty program and accompanying teaching materials (available on the website) were funded in part by SARE. The series is available for purchase.

JONES VALLEY TEACHING FARM
PO Box 320230
Birmingham, AL 35232
(205) 453-7268
info@jvtf.org
https://jvtf.org/
Location: Birmingham, Alabama

This non-profit organization designs and builds teaching farms in Birmingham, Alabama with a focus on sustainable and organic agriculture. Their downtown campus hosts the Center for Food Education which serves as a community hub, and one of 7 Teaching Farms that are located on elementary, middle, and high school campuses.

Good School Food (GSF) is their hands-on education model that connects students from all grades to food, farming, and the culinary arts through standards-based, cross-curricular lessons during the school day. GSF involves building teaching farms on school campuses, and providing partner schools with full-time instructors who collaborate with teachers to develop and deliver programs and curricula that align food and nutrition concepts with learning goals in math, science, social studies, engineering, and language arts. Through their STEM/standards-based After-school programs, students grow, harvest, cook, and sell the produce from their school’s Teaching Farm. Additional programs include Field Trips, Summer Camps, and Farm Apprenticeships.
NATICK COMMUNITY ORGANIC FARM
117 Eliot Street
Natick, MA 01760
(508) 655–2204
Info@natickfarm.org
https://www.natickfarm.org/learn/
Age Range: PreK – Young Adult
Location: Massachusetts

This nonprofit, certified-organic farm offers hands-on sustainable agriculture educational opportunities to youth of all ages. School programs for preK-12 are designed to supplement classroom curriculum by providing hands-on experiences on a working farm. Programs are aligned with the Massachusetts Curriculum Frameworks. Teen programs focus on learning about farming, food, the environment, and sustainability through paid and unpaid summer work opportunities (ages 14-18). Apprentices (ages 14-17) receive year-round mentored job training experiences (by invitation only).

NATIONAL FARM TO SCHOOL NETWORK
National Farm to School Network
P.M.B. #104
8770 West Bryn Mawr Ave, Suite 1300
Chicago, IL 60631-3515
info@farmtoschool.org
https://www.farmtoschool.org/
Age Range: All ages
Location: National

National Farm to School Network (NFSN) is an information, advocacy, and networking hub for communities working to bring local food sourcing and food and agriculture education into school systems and preschools. Their mission: NFSN increases access to local food and nutrition education to improve children’s health, strengthen family farms, and cultivate vibrant communities. Search their Resources for an extensive list of curricula and other materials related to local food and sustainable agriculture with topics such as Culinary Education, Farm-based Education, and Food Justice. Search Our Network for information on starting and operating farm to school programs nationwide.

NATIONAL FARMERS UNION
20 F Street NW, Suite 300
Washington, DC 20001
(202) 554-1600
https://nfu.org/education/
Age Range: 3rd Grade – Young Adult
Location: National

The National Farmers Union (NFU) mission is to Advocate for family farmers, ranchers, fishers, and their communities through education, cooperation, and legislation. NFU has education materials for grades 1 – 12 around the areas of environmental stewardship and the value of purchasing food locally from sustainable farms. Lesson plans are available on the website and include: Great Ingredients from the Farm (grades 3-5) and You Are What You Eat (grades 9-12). Other curricula cover: Cooperatives; Eat Fresh, Buy Local; Diversity; and Renewable Energy.
THE NATURE CONSERVANCY
4245 North Fairfax Drive, Suite 100
Arlington, Virginia 22203-1606
(703) 841-5300
https://www.nature.org/en-us/
https://www.nature.org/en-us/about-us/who-we-are/how-we-work/youth-engagement/nature-lab/
Age Range: K-12, Teachers, Parents
Location: International

The Nature Conservancy is a global environmental nonprofit working to create a world where people and nature can thrive. Nature Lab is their youth curriculum platform which provides science-based lessons for students grades K-12 including virtual field trips and school garden resources. Lessons are available in English and Spanish and cover topics like: How Dirt Works and The Role of Soil. Teaching guides provide standards-based instructional resources for classroom or home use.

Nature Lab at Home! Offers activities, videos, and hands-on projects for grades 3-8 (ages 8-14) including: Provide Food and Water Sustainably.

RESEARCH, EDUCATION, ACTION AND POLICY (REAP) FOOD GROUP
306 E Wilson Street, #2w
Madison, WI 53703
(608) 310-7836
https://farmtoschooltogo.wordpress.com/teleschool-kit/
Age Range: K-12, Teachers
Location: Wisconsin, national examples

REAP’s mission is to transform communities, economies and lives through the power of good food. The Farm to School Project is a partnership between REAP Food Group and the Madison Metropolitan School District (MMSD) Food and Nutrition Department to increase the amount of locally-grown, fresh foods in district snacks and lunches, and to teach nutrition and agriculture lessons to students and staff. Lessons are designed to engage students’ senses as they explore the world of food and learn about local food, agriculture, nutrition, science, and sustainability. Teachers and AmeriCorps members help students learn how to make choices that are healthy for their bodies and for the planet. See the website for Teleschool kits that provide lessons and resources for all ages. To Go Kits are available for pickup locally. Topics include: Routes of Food, What is a Farm, Buzz on Bees, and more.

NORTHEAST ORGANIC FARMING ASSOCIATION VERMONT (NOFA-VT)
PO Box 697
Richmond, VT 05477
(802) 434-4122
http://nofavt.org/
https://nofavt.org/programs/farm-school
Age Range: K-8th grade, Adult
Location: Vermont

NOFA-VT is an organic farming association with a mission to promote organic practices to build an economically viable, ecologically sound and socially just Vermont agricultural system that benefits all living things. Their agricultural education opportunities include:

Ag Engagement Partners, which develops and expands relationships between communities, schools and their local farms.

Farmer Correspondence Program, where farmers and K-8 classrooms develop a pen pal relationship and organize farm field trips.

Vermont Food Education Every Day (VT FEED), this statewide Farm to School Program is a collaboration between NOFA-VT and Shelburne Farms to raise awareness about healthy food, good nutrition, and the role of Vermont farms and farmers in sustaining a healthy community.

Age Range: K-8th grade, Adult
Location: Vermont
SHELBURNE FARMS
1611 Harbor Road
Shelburne, VT 05482
(802) 985-8686
http://www.shelburnefarms.org/
https://shelburnefarms.org/our-work
Age Range: PreK-12 and Educators
Location: Vermont

Shelburne Farms (SF) is an education nonprofit organization focused on inspiring and educating students, educators, and learners of all ages to build a sustainable future. Their headquarters are a 1,400-acre working farm, forest, and National Historic Landmark. SF staff work with young people and teachers in Vermont and worldwide. See the Our Work tab on their website for information about programs and resources for preK-12 Educators and Schools and for Farm-based Educators. SF also offers Professional Learning for Educators including Workshops, Year-long Programs, and Education for Sustainability Graduate Certificate Programs in partnership with the University of Vermont. There are also programs on the farm for Families and Youth (pre-school – age 17), Schools (pre-K-college), Students (middle school and high school) and Groups.

SLOW FOOD USA
9322 3rd Ave, #402
Brooklyn, NY 11209
(718) 260-8000 or 877-SlowFoo(d)
http://www.slowfoodusa.org/
Age Range: K-12, Young Adult
Location: National

Slow Food USA (SF-USA) is part of the global Slow Food network with members in more than 150 countries. Their vision: Slow Food USA strives to create a world where all people can eat food that is good for them, good for the people who grow it, and good for the planet. SF-USA's School Garden Network aims to reconnect youth with their food by teaching them how to grow, cook and enjoy real food. See the Programs tab for SF-USA’s School Gardens resources, including the Good, Clean and Fair School Garden Curriculum and information about the Slow Food Youth Network (SFYN) which connects upcoming generations of Slow Food members around the world. SFYN leaders work to inspire change in how we produce and consume food on the local and global levels.

SOIL SCIENCE SOCIETY OF AMERICA (SSSA)
5585 Guilford Road
Madison, WI 53711
(608) 268-3951
http://soils4teachers.org/home
Age Range: PreK-12
Location: International

The Soil Science Society of America is a professional international scientific society that fosters the transfer of knowledge and practices to sustain global soils. It is made up of professionals and students focused on promoting soil science and enhancing soils topics in schools. The Soil 4 Teachers website includes resources on soil science divided into topics such as Soil Basics, Soils by Subject, and Soils and People. Other resources include Ask a Soil Scientist (where you can get soil questions answered and find out how to request a classroom visit from a soil scientist), a Glossary of terms, Lessons and Activities (divided by subject and grade level), and Resources (a list that includes free classroom materials).
ZENGER FARM  
11741 SE Foster Road  
Portland, Oregon 97266  
(503) 282-4245  
http://zengerfarm.org/  
Age Range: PreK-Adult  
Location: Oregon

Zenger Farm is a nonprofit organization and working urban farm that models, promotes and educates about sustainable food systems, environmental stewardship, community development, and access to good food for all. It does this through experiential and science-based programs for youth and adults. Education programs include the following. **Farm Camps** (1st-10th grades): centered around land stewardship, curiosity, nourishment, and respect for youth; **Farm Field Trips** (preschool-adult): hands-on tours of the farm and wetland that connects people to food, environmentally-friendly farming practices, and wild and domesticated animals; and **Farm School** (preschool-adult): links students with natural areas in their community through seasonal field trips to the farm, and helps students connect to their food, the environment, and each other in a meaningful way through Next Generation Science Standards (NGSS) aligned programming. A short-season **Farm Internship** program and full-season **Farm Apprenticeship** program provide students with opportunities to learn farming skills and build a career in the food system.
Preschool and Kindergarten – 5th grade

THE AGRARIAN ADVENTURE
PO Box 7928
Ann Arbor, MI 48107
http://www.agrarianadventure.org
Age Range: Elementary – middle school
Location: Ann Arbor, Michigan

The Agrarian Adventure is a volunteer-led grassroots nonprofit organization founded by students, teachers, parents, and local community members in 2003. The group partners with K-12 schools to enrich students’ connection between the foods they eat, their personal health, and the health of their communities and the environment. Through experiential education in sustainable food and agriculture, local food, and healthy learning in the cafeteria, this organization connects students to the sources of their food and empowers them to transform their lives and food culture in positive ways.

Agrarian Adventure provides or supports the following programs. **Curricular & Teacher Support** (Grades K-8), **Farmer in the Classroom** (Grades K-5): farmer visits involve hands-on lessons taught by a local farmer or food producer, **After School Cooking & Gardening**: supports the Food & Garden Club for 6th-8th grade students at Tappan Middle School, **Organic Schoolyard Food Production**: a school garden, orchard, and production greenhouse at Tappan Middle School serve as educational resources for the school and community, **Farm to School**: bringing local food to Ann Arbor public school cafeterias.

COMMUNITY MERCANTILE EDUCATION FOUNDATION
P.O. Box 3536
Lawrence, KS 66046
(785) 764-5899
https://www.growingfoodgrowinghealth.org/
Age Range: Elementary – middle school
Location: Kansas

Community Mercantile Education Foundation (CMEF) is a nonprofit created to extend the educational outreach being done by their sister organization, a food cooperative known as the Merc Co+op. CMEF’s mission is to nourish and inspire personal wellbeing, strengthen community connections, and support sustainable, local food systems. CMEF carries out this mission by creating beautiful and productive gardens, developing youth leaders, and using food as a transformative path to health. Youth education is carried out through the **Growing Food Growing Health** (GFGH) project, which is dedicated to improving the health of youth by creating school gardens that act as living classrooms, inspiring hands-on education, and connecting students to locally-grown fruits and vegetables. GFGH maintains gardens on the grounds of 2 elementary schools and 1 middle school, plus 1 garden at a residential drug treatment facility for women and their children.
DUNBAR GARDEN  
PO Box 165317  
Little Rock, AR 72206  
501-244-9200  
http://dunbargarden.org/  
Age Range: Elementary – middle school  
Location: Arkansas

Dunbar Garden is a non-profit with a mission to provide educational resources and interactive opportunities for youth, families, and the community through sustainable urban agriculture. The organization works to increase access to quality local foods and support the development of urban teaching gardens within their community. Dunbar Garden is an urban community garden and teaching garden located in South Little Rock. This two-acre “outdoor classroom” is used to teach where food comes from and principles of environmental stewardship. The focus is on hands-on, experiential education. The Garden hosts 100s of students from adjacent elementary and middle schools. They also host church groups, home school families, Girl Scout and Boy Scout groups and private schools.

THE FOOD GROUP  
14220-B Ostlund Trail N  
Marine on St. Croix, MN 55047  
http://thefoodgroupmn.org/  
Age Range: Elementary - middle school  
Location: Minnesota

The Food Group, which grew out of the Minnesota Food Association (MFA), used an NCR-SARE Youth Educator Grant to pilot a youth and family engagement program at their Big River Farms training farm in 2015. The pilot offered sessions to student groups and families, where youth could learn about basic sustainable agriculture practices and interact with farmers at Big River Farms Farmer Training Program. Hands-on lesson plans were produced that introduced children to various sustainable agriculture concepts such as soil makeup, animal integration, the seed to table cycle, and the role of a farmer. See the grant report and lesson plans at: YENC15-085 - (2015) Big River Farms Youth & Family Engagement Program – a Project of the Minnesota Food Association

HEALTHY FOODS FROM HEALTHY SOILS: A Hands-on Resource for Teachers  
Tilbury House Publishers  
12 Starr Street  
Thomaston, ME 04861  
(800) 582-1899  
https://www.tilburyhouse.com/  
https://www.teachingbooks.net/tb.cgi?tid=2983  
Age Range: Kindergarten – Grade 6  
Location: National

This book by Kathy Lyons, Elizabeth Patten, and Helen Stevens contains over 200 pages of activities and resources to help students discover where food comes from, how our bodies use food, and what happens to food waste. Students explore the ecological cycle of food production, including composting and recycling back to the soil, and learn how their food choices affect their health, farmers, the environment, and their local community. Teachers can adapt the material to meet their needs from small scale to large efforts, and urban or rural settings. There is a detailed resource list with background information, suggestions for materials, and instructions for each activity.
HOW’S IT GROWING: A HOW TO GUIDE FOR STARTING FARM TO PRESCHOOL PROGRAM
1588 South Victoria Road
Mendota Heights, MN 55118
(651) 454-4000
http://www.childrenscountryday.org/
Age Range: Preschool
Location: National

How’s it Growing was created in 2013. It was designed as a Master’s capstone project in partnership with Children’s Country Day School in Mendota Heights, MN – a nature-based school for preschool-aged children – and Green Mountain College in Poultney, VT. The project’s goals were to establish a farm-to-preschool pilot program at the school and to integrate a sustainable agriculture curriculum and other food-related experiences into the culture of the school. The main focus of the project was the development of a preschool-aged curriculum focusing on local food systems and healthy food choices. The curriculum is separated into nine chapters about various garden themes during the growing season. See: https://howsitgrowingpreschool.wordpress.com/2014/04/01/hows-it-growing/

LAND’S SAKE, INC.
Farm: 90 Wellesley Street; Office: 27 Crescent Street
Weston, MA 02493
(781) 893-1162
info@landssake.org
http://www.landssake.org
Age Range: Grades PreK-9
Location: Massachusetts

Land’s Sake (LS) is a nonprofit organization that supports environmental education programs, food donation programs, and land management. Farm tours, after-school and summer programs explore topics such as farm life cycles, garden pollinators, organic farming, and soil health. Green Power programs (for 6th-9th graders) provide a local food immersion experience that includes hands-on farming and the opportunity to participate in stewardship activities.

RODALE INSTITUTE
611 Siegfriedale Road
Kutztown, PA 19530-9320
(610) 683-1400
https://rodaleinstitute.org/
https://rodaleinstitute.org/education/school-gardening-curriculum/
https://rodaleinstitute.org/learn/curriculum-resources/
Age Range: Pre-school and kindergarten and can be adapted for elementary school students
Location: National

Rodale Institute is a nonprofit organization dedicated to growing the organic movement through rigorous research, farmer training, and consumer education. They are known for their global leadership in regenerative organic agriculture. My First Garden is a free curriculum for educators. Lessons include a video tutorial, printable resources, books to read, crafts, and snack ideas to get all senses involved. It includes 5 lesson plans and can be started at any time of year.

- Lesson 1: Where Food Comes From
- Lesson 2: How Seeds Grow
- Lesson 3: Planting A Garden
- Lesson 4: Harvesting & Tasting
- Lesson 5: Visiting a Farm
New Society Publishers
P.O. Box 189
Gabriola Island, BC
Canada, V0R 1X0
(250) 247-9737
https://newsociety.com/books/s/the-school-garden-curriculum
Age Range: K-8
Location: National

This curriculum by Kaci Rae Christopher offers a unique and comprehensive framework, enabling students to grow their knowledge throughout the school year and build on it from kindergarten to eighth grade. From seasonal garden activities to inquiry projects and science-skill building, children will develop organic gardening solutions, a positive land ethic, systems thinking, and instincts for ecological stewardship. It includes:

- A complete K-8 school-wide framework
- Over 200 engaging, weekly lesson plans – ready to share
- Place-based activities, immersive learning, and hands-on activities
- Integration of science, critical thinking, permaculture, and life skills
- Links to Next Generation Science Standards
- Further resources and information sources.

UP WE GROW!
A YEAR IN THE LIFE OF A SMALL, LOCAL FARM
Kids Can Press, Ltd. (Canadian-owned children’s book publisher)
U.S. Orders:
Hachette Book Group
Order Department
53 State Street, 9th floor
Boston, MA 02109
1-800-759-0190
https://www.kidscanpress.com/
https://www.kidscanpress.com/product/up-we-grow/
Age Range: PreK- 2nd Grade
Location: National

This picture book, written by Deborah Hodge and illustrated by Brian Harris, helps young children understand sustainable, organic farming, eating locally, and environmental stewardship. Children are invited into the world of a small, co-operative farm over four seasons. Readers discover the production practices and human interactions that make up small-scale, local farm culture.
VITAL COMMUNITIES
195 North Main Street
White River Junction, VT 05001
(802) 291-9100
info@vitalcommunities.org
https://vitalcommunities.org/
Age Range: Kindergarten – 4th Grade
Location: Regional

Vital Communities engages people, organizations, and communities in the Upper Valley (an area of New Hampshire and Vermont) to create equitable solutions to the region’s challenges. The **Food and Farm** program provides resources for eaters, producers, and communities to build a food system that is viable, equitable, accessible, and resilient. Resources include: **Harvest Lessons** a Farm-to-School curriculum designed to teach students about healthy eating, local food, and natural history through hands-on, standards-based learning activities. See [https://vitalcommunities.org/food-and-farm/farm-to-school/](https://vitalcommunities.org/food-and-farm/farm-to-school/).

Vital Communities received a Northeastern SARE Sustainable Community Innovation grant to explore FarmRaisers for schools. These are farm-based alternative fundraisers that provide families with fresh local farm products, build markets for local farms, and provide funding for schools. See the report at: [CNE13-110 - FarmRaisers: Raising funds, kids, and crops in the Upper Valley](https://vitalcommunities.org/food-and-farm/farm-to-school/).
**Recommended for Middle School – 6th through 8th Grade** (also see High School, Young Adult)

**BULLFROG FILMS**  
PO Box 149  
Oley, PA 19547  
(800) 543-3764  
[http://www.bullfrogfilms.com](http://www.bullfrogfilms.com)  
Age Range: Grade 7  
Location: National

Bullfrog Films provides educational videos and films about the environment. Titles that may be suitable for youth education include: *Beyond Organic, The Vision of Fairview Gardens; Broken Limbs, Apples, Agriculture, and the New American Farmer*; and *Deconstructing Supper, Is Your Food Safe*. Search the “Subjects” tab on their website for Sustainable Agriculture films.

**EASTERN UPPER MICHIGAN SUSTAINABLE AGRICULTURE CURRICULUM INITIATIVE**  
Bay Mills Community College  
12214 W. Lakeshore Dr.  
Brimley, MI 49715 US  
(906) 248-3354  
[https://www.bmcc.edu/](https://www.bmcc.edu/)  
Age: Middle School 6th through 8th grade  
Location: Michigan

Bay Mills Community College, a tribal college and land grant Institution, and its partners are developing curriculum focused on middle school students that incorporates Native American values. The college partners with local agriculture interests to provide regional and culturally relevant, classroom, and hands-on learning opportunities for middle school youth. The curriculum initiative also offers teacher professional development targeting sustainable agriculture concepts for their classrooms. This curriculum initiative is a work in progress. Curriculum module drafts include:

- *Agriculture Careers*
- *Animal Science*
- *Crop Science*
- *Food Science*
- *Horticulture*
- *Precision_Agriculture_

Educators are welcome to adapt and reproduce sections of the curriculum for non-commercial use. To learn more about this curriculum, funded through a NCR-SARE Research and Education grant see: [LNC19-430 - Eastern Upper Michigan Sustainable Agriculture Curriculum Initiative](https://www.bmcc.edu/)

**THE EDIBLE SCHOOLYARD BERKELEY**  
Martin Luther King, Jr. Middle School  
1781 Rose Street  
Berkeley, CA 94703  
(510) 558-1335  
[http://edibleschoolyard.org/Berkeley](http://edibleschoolyard.org/Berkeley)  
Age Range: Middle school  
Location: Berkeley, California

The Edible Schoolyard Berkeley (ESYB) is the Edible Schoolyard Project's demonstration site and learning lab. It is a one-acre organic garden and kitchen classroom for urban public school students at Martin Luther King, Jr. Middle School. At ESYB, students participate in all aspects of growing, harvesting, and preparing nutritious, seasonal produce during the academic day and in after-school classes. Students’ hands-on experience in the kitchen and garden fosters a deeper appreciation of how the natural world sustains us and promotes the environmental and social well-being of the school community.
This foundation highlights the connections among food, water and energy, promoting a sustainable future through tools such as: FoodPrint, Seasonal Food Guide, and Water Footprint Calculator. The website offers a collection of information and links to resources to help teachers interested in using food- and agriculture-related lessons in their classrooms.

Kids Can Make a Difference (KIDS) is a program of iEARN (International Education and Resource Network), a non-profit global network that enables teachers and youth to use the Internet and other technologies. The KIDS program educates students about the root causes of hunger and poverty and who is most affected, and helps them identify actions they can take to help. The program consists of: 1. Teacher guide, Finding Solutions to Hunger: Kids Can Make a Difference, 2. newsletter, and 3. KIDS website. The curriculum contains 25 lessons, fundraising ideas, and a listing of videos, books, and more that can support the lessons.

The Tisch Food Center produces curricula independently and in collaboration with nonprofit food and nutrition education programs that engage children in exploring food systems, food choice, and personal health. Their FoodEd Hub features curricula that address the interplay of biology, personal behavior, and the present food system. FoodEd is a collaboration of the Science Education and Nutrition Education programs at the college.
Rangeland Systems Curriculum Development
South Dakota State University (SDSU)
West River Research and Extension
711 N Creek Dr., Rapid City, SD 57703
https://www.sdstate.edu/sdsu-west-river-research-extension
Phone: (605) 394-2236
Age Range: Grades 6 – 8
Location: South Dakota

This curriculum provides experiential learning opportunities for youth to learn about sustainable agriculture and related career pathways in rangeland systems. The curriculum includes a framework for implementing an “Adopt-a-Rancher” program where ranchers help provide vlogs (video blogging) to classrooms and help develop field trips to their ranches, teacher workshops, and lesson plans for youth. Lesson plans and laboratory/field exercises align with Next Generation Science Standards and can be adapted to states in the North Central Region. Topics include:

- Overview of Rangelands
- Rangeland Plants
- Rangeland Animals
- Soil Health
- Change and Threats

This curriculum development project was supported by an NCR-SARE Research and Education Program grant. To read the project report and access this free curriculum see:

Recommended for High School, Young Adult

Agriculture Sustainability Institute
One Shields Drive
UC Davis
Davis, CA 95616
(530) 752-3915
http://asi.ucdavis.edu/programs/sf/resources
Age Range: High school and university
Location: California, national

The Agriculture Sustainability Institute at UC Davis provides educational resources and opportunities including sustainable agriculture activity guides for on-farm experiential learning for high school and college students. The Institute’s students and researchers partner with farmers, ranchers, agribusiness, non-profits, policy makers, and local communities to ensure that their research and teaching respond to the needs of the people of California and the world. Programs include a Student Farm, Russel Ranch, and the Inter-Institutional Network for Food, Agriculture, and Sustainability (INFAS).
**AGROFORESTRY CURRICULUM**
University of Missouri Center for Agroforestry (UMCA)
203 Anheuser-Busch Natural Resources Bldg.
Columbia, MO 65211
(573) 884-2874
https://centerforagroforestry.org/students/online-curriculum-agroforestry-modules/
Range: High school
Location: Missouri

The University of Missouri Center for Agroforestry collaborated with Missouri high school agriculture science teachers, FFA, and the MO Department of Education to construct an open access curriculum complete with lesson plans, teacher guides, hands-on and problem-solving student activities to engage students with content on temperate agroforestry practices and resources to further develop their inquiry and skillset. In the module *What is Agroforestry?* students learn to recognize attributes of, and marketable products from canopy and understory trees, shrubs, and herbaceous plants common to Missouri agroforestry systems. In the module *Agroforestry Applications*, students have an opportunity to expand their understanding of agroforestry practices by applying what they learned in Module 1 to a number of planning and design activity options. Modules are available to download for free from their website.

This curriculum development was supported by an NCR-SARE Professional Development Program grant. Read the project report here: ENC16-154 - Missouri Agroforestry Summer Institutes: High School Educator Training for Curriculum Delivery

**ANIMAL FIBER PRODUCTION FOR THE FASHION SUPPLY CHAIN: Sustainable Agriculture Curriculum**
Department of Interior Design and Fashion Studies
Kansas State University
321 Justin Hall
Manhattan, KS 66506
785-532-6993
athenas.ksu.edu
Age: High School – young adults
Location: Kansas; regional

The curriculum utilizes high school girls’ interest in fashion to develop knowledge of sustainable agricultural supply chains, practices and careers—with the long-term goal of stimulating a regional fiber system. Curriculum modules focus on four topic clusters:
- Fashion Supply Chain
- Sustainable Fiber and Fashion
- Sustainable Sheep Husbandry
- Interacting with Sheep Farmers

Additionally, the various module activities include Scientific and Engineering and Crosscutting Concepts standards as well as STEM related learning outcomes such as engineering design and ecosystem interactions, energy and dynamics.

Educators are welcome to adapt and reproduce sections of the curriculum for non-commercial use. To learn more about this curriculum, funded through an NCR-SARE Research and Education Grant see the report at: LNC19-431 - Animal Fiber Production for the Fashion Supply Chain: Developing Sustainable Agriculture Curriculum for High School Young Women
BIONEERS
1014 Torney Ave
San Francisco, CA 94129
(505) 986-0366
http://bioneers.org/bioneers-study-guides/
Age Range: Grades 9-12 and university
Location: National

Bioneers offers Study Guides on Restorative Food Systems, Climate Change, and Indigenous Knowledge, and more topics will be added. **Bioneers Study Guides** have been created with every type of classroom setting in mind. They are suited for grades 9-12, and potentially some introductory university courses. All Bioneers Study Guides are written in alignment with relevant long-standing national standards as well as New Common Core standards, Next Generation Science Standards, and the National Geographic Standards.

BK FARMYARDS
http://bkfarmyards.blogspot.com/education
Age Range: High school
Location: Brooklyn, New York

BK Farmyards is a collective of experienced urban farmers dedicated to expanding food justice through agricultural production and education in Brooklyn. They offer a variety of training and curricula for classroom teachers, camp counselors, and after school groups who are interested in integrating gardening, nutrition, food justice, and food systems into their programs. Youth projects include: The **Youth Farm**, this one-acre educational production farm in central Brooklyn, is a partnership between the High School for Public Service (HSPS) and Green Guerillas, and receives support from BK Farmyards. The aim is to work holistically, integrating the demands and needs of the soil, the crops, the farmers, and the surrounding community to maintain and sustain health and economic sustainability.

CALIFORNIA CERTIFIED ORGANIC FARMERS FOUNDATION
2155 Delaware Avenue, Suite 150
Santa Cruz, CA 95060
(831) 423-2263
https://www.ccof.org/
Age Range: Middle school through adult
Location: National

The mission of the California Certified Organic Farmers (CCOF) Foundation is to empower organic farmers to grow organic agriculture, which in turn creates a more prosperous, resilient world. The Foundation provides educational and funding opportunities for current and future organic farmers. Educational offerings include events, videos, and podcasts. **Future Organic Farmer grants** provide funding for FFA students in grades 7-12 doing Supervised Agricultural Experience (SAE) projects, and scholarships for students and early career farmers for organic-focused studies in college or vocational programs.
Center for Integrated Agricultural Systems (CIAS) brings together university faculty, farmers, policy makers, and others to study relationships between farming practices, farm profitability, the environment, and rural vitality. Among the educational materials offered is *Towards a Sustainable Agriculture*, a curriculum available online in five modules:

- Introduction to Sustainable Agriculture
- Corn, Beans, and Burgers: field crops in sustainable agriculture
- Flesh, Fish, and Fowl: animals in sustainable agriculture
- Apples, Beets, and Zinnias: sustainable horticulture
- A Growing Market: organic agriculture

This curriculum is a work in progress. Educators are welcome to adapt and reproduce sections of the curriculum for non-commercial use. For more information about the project, which was partially funded by a SARE grant, see: [LNC03-227 - Towards a Sustainable Agriculture: An Updated Curriculum for High School Classes](https://cias.wisc.edu/curation-new/).

Detroit Food Academy is a non-profit experiential leadership program dedicated to transforming the lives of young Detroters through food and social entrepreneurship. They partner with local high schools, educators, and food entrepreneurs to facilitate a year-round practicum culminating in the design and launch of students' own triple-bottom-line (people, planet, profit) food business. By developing food-based solutions in their communities, students grow as holistic leaders who are healthy, connected, and powerful to effect change within and beyond the local food system. For information about this program, see the NCR-SARE Youth Educator Grant project: [YENC12-058 - Building Sustainable Agriculture Connections for Ypsilanti Farm to School](https://detroitfoodacademy.com/).
DREAM OF WILD HEALTH
1308 E. Franklin Ave
Minneapolis, MN 55404
https://dreamofwildhealth.org/programs/youth-programs
(612) 874-4200
Age Range: Middle school through Young Adult
Location: Minnesota

The mission of Dream of Wild Health (DWH) is to restore health and well-being in the Native community by recovering knowledge of and access to healthy Indigenous foods, medicines, and lifeways. The youth programs are a way to bring families together around healthy food, nature, and traditions. Dream of Wild Health offers programs at their farm in Hugo, MN for Native American youth from the Twin Cities. **Cora’s Kids:** This 4-day program for Native kids ages 8-12 teaches youth about growing and eating healthy and tasty food, culture, and language along with traditional crafts and games. Youth also cook healthy lunches. **Garden Warriors:** In a three-week session, teens ages 13-18 learn about gardening, nutrition, and Native culture and language. Youth have opportunities to work in the kitchen cooking healthy and indigenous foods, and at the DWH Farmer's Market. Participants are paid a stipend. **Youth Leaders:** This program allows older youth to stay with Dream of Wild Health year-round. It's an opportunity for Native youth to take leadership in the community around nutrition, health and food justice issues while they reconnect to a traditional relationship with food.

Dream of Wild Health’s work has been supported by two NCR-SARE Farmer Rancher grants. Read more about the projects here:
- FNC08-740 **Native Youth Teach Healthy Diets (Learning to Love Vegetables!)**
- FNC10-803 **Mobile Farmers’ Market**

EARTHDANCE
223 S Dade Avenue
Ferguson, MO 63135
(314) 521-1006
http://www.earthdancefarms.org
Age Range: Middle school through Young Adult
Location: Ferguson, Missouri

EarthDance (ED) is a non-profit organization located on a USDA certified organic farm. The ED commitment to agricultural education includes teaching people of all ages where their food comes from and how to grow it. An increased focus on justice, equity, diversity, and inclusion has led to new programming to better meet the needs of people in the local community and help create a culture that makes food sovereignty a reality. EarthDance has had several youth education projects funded in part by NCR-SARE grants. Read about them at the following links:
- FNC09-785 - (2009) **Educating from Seed to Market: An Organic Farming Apprenticeship Program in St. Louis, Missouri** (young adult)
- YENC12-053 - **Organic Farm to Summer Camp Table: Opportunities for Youth on an Organic Farm** (middle school)
- YENC15-089 - **Junior Farm Crew** (ages 16-20)
- YENC22-183 - **Agri-Culinary Project** (high school)
El Campito Child Development Center is a nonprofit, bilingual child development center in Northern Indiana with a 1-acre garden called Mrs. Niños Garden. The Migrant Regional Services Center has a mission to ensure that children in families that migrate for seasonal work have access to equal opportunities for success. Their Migrant Summer School program teaches regenerative agriculture and community development and introduces students to sustainable agriculture careers. To learn more about this program, funded in part through an NCR-SARE Youth Education grant, see: YENC22-176 - Migrant Summer School Program.

Farming the City is a campus urban agriculture learning center on the grounds of Good Shepherd Montessori School in the heart of South Bend, Indiana. Farming The City was formed as a partnership between Bertrand Farm and Good Shepherd Montessori School and continues the mission of connecting students and community to local food production to promote sustainable agriculture and earth stewardship. Their educational curricula are appropriate for college credit. Farmers in the North Central region can use the modules to train new farmers in sustainable and profitable food growing practices. This project was partially funded by an NCR-SARE Farmer Rancher grant. For more information, read the report: FNC12-896 - (2012) An Internship Curriculum for Food Farmers in the North Central Region.

The Farmbot Project is a curriculum design and training model developed in collaboration with Illinois 4-H, the University of Illinois, and the FarmBot company. The project engages youth in how to build and maintain a FarmBot to support sustainable vegetable production. The program is aimed at developing the critical thinking and STEM-related skills of Illinois youth by bringing them into contact with precision agriculture technology and promoting design thinking approaches to agriculture’s greatest challenges. The curriculum’s FarmBot genesis training manual is a work in progress. A keyword search of FarmBot will get you to the latest newsletter updates regarding the FarmBot project on the University of Illinois Extension website. To learn more about the FarmBOT project, funded in part through an NCR-SARE Youth Educator grant see: YENC20-144 - FarmBot Project.
The Food Project has built a national model of engaging young people in personal and social change through sustainable agriculture. They work with teens and volunteers to farm 70 acres in eastern Massachusetts in the towns and cities of Beverly, Wenham, Lynn, Boston, and Lincoln. Through youth programs: the Seed Crew, Dirt Crew, and Root Crew, teens expand their knowledge of sustainable agriculture and food justice, build public speaking and job readiness skills, and partner with staff and community members to engage in hands-on projects. See the “Resources” tab on their website for links to teaching materials including their books:

- *French Fries and the Food System: A Year Round Curriculum Connecting Youth with Farming and Food*
- *Growing Together: A Guide to Building Inspired, Diverse and Productive Youth Communities*

Food Systems Thinker

food.https://oomloom.wixsite.com/foodsystemsthinker

Age range: High School, Adults, and Educators
Location: National

*Food Systems Thinker* is an online resource for anyone who is interested in learning about food systems, especially high school students and older adults. While going through lessons, learners gain more understanding about sustainable food systems and practice systems thinking. The topics included in this website connect food systems topics with human health, the environment, economics, and community. This resource was developed by Mingla Charoenmuang with partial support from an NCR-SARE Graduate Student Grant: GNC18-256 - Developing Educational Resources on Sustainable Food Systems for High School

Georgia Organics

200-A Ottley Drive
Atlanta, GA 30324
(678) 702-0400
http://eeingeorgia.org/resource/about.aspx?s=44476.0.0.4863
Age Range: High school, university, adults
Location: Regional, national

Georgia Organics, a nonprofit organization that promotes locally grown food and organic farms, created a curriculum, *Fundamentals of Organic Farming and Gardening: An Instructor's Guide*, to help educate high school agricultural students and adults about organic farming and gardening. The curriculum aims to fill the gap between demand and supply of organic food by encouraging more education. For more information about the project, which was partially funded by a Southern SARE grant, see: ES03-068 - Curriculum in Organic Agriculture for Agents and Teachers
GIRL SCOUTS OF THE USA
420 Fifth Avenue
New York, NY 10018-2798
(800) GSUSA 4 U [(800) 478-7248] or (212) 852-8000
http://www.girlscouts.org/
Age Range: High School
Location: National and global

Girl Scouts (GS) is a nonprofit leadership development organization for girls. Their It’s Your Planet—Love It! Leadership Journey program focuses on environmental issues such as clean water and air, noise pollution, global warming, soil contamination, and agricultural processes and has programs for all ages. The Sow What? Senior Leadership Journey is a coordinated series of activities grouped around the theme of food for Grades 9-12. Participants look at local and global food issues and carry out an action project. There is a companion guide for adults. The content of all GS journeys has been correlated by grade level to the new national Common Core Standards and the 21st Century Skills standards, as well as to the Health & PE, Language Arts, Math, Science, and Social Studies learning objectives for all 50 states and the District of Columbia. See: https://www.girlscoutshop.com/badges-program/senior/program-materials and It’s Your Planet—Love It! - Girl Scouts

GREEN GUERILLAS
232 E 11th Street
New York, NY 10003
(212) 594-2155
https://www.greenguerillas.org
Age Range: High School – adult
Location: New York

This nonprofit organization and resource center uses a mix of education, organizing and advocacy to help people cultivate community gardens, sustain grassroots groups, grow food, engage youth, and address issues critical to the future of their gardens. Projects include Youth Tillers Program, in which Green Guerillas (GG) recruits, trains, and mentors a team of teenagers using paid internships and garden workdays to grow food, strengthen food-growing community gardens, and teach hundreds of other city kids where their food comes from. In the Youth Farm program, GG helps a team of students, teachers, and urban farmers cultivate a one-acre urban farm in Brooklyn, and engage hundreds of students in farm- and classroom-based service and learning. They manage a weekly farmers market, a CSA, and an Urban Farm Training Program. Also see: BK Farmyards

GROWING SOLUTIONS FARM
1212 W. Flournoy St.
Chicago, IL 60607
info@urbanautismsolutions.com
https://www.urbanautismsolutions.com/growing-solutions-farm
Age Range: High school – young adults
Location: Illinois

Growing solutions Farm is a 1.2-acre produce farm where young adults with autism challenges gain vocational and social skills while getting outside in the fresh air. The farm includes a hoop house, cooling shed, composting bins, and an outdoor tented classroom. The farm grows more than 100 varieties of vegetables, herbs and flowers. Young adult participants with autism and learning differences participate independently as well as from the Growing Solutions residential programs and from their partner, West Side Chicago public high schools.

The farm used an NCR-SARE Youth Educator grant to create lesson plans and a presentation on composting. See the report and details at: YENC21-168 - Growing Solutions Farm
FRESH New London builds momentum for food system change through local agriculture and youth empowerment. They use food to connect the community, encourage stewardship, inspire leadership, and incite change. Learning takes place at the 5-acre farm site at the Waterford Country School through Seasonal Youth Crew and Crew Leader programs. Farm Internships are also available.

HARTFORD FOOD SYSTEM
1 Congress Street, Suite 302
Hartford, CT 06114
(860) 296-9325
http://www.hartfordfood.org/
Age Range: High school
Location: Hartford, Connecticut

Hartford Food System is a private, non-profit organization working to create an equitable and sustainable food system that addresses the underlying causes of hunger and poor nutrition facing low and moderate-income Hartford residents. Grow Hartford is a youth leadership and organizing program that builds youth leaders in Hartford to challenge racial inequities in the food system and society at large. During the academic year youth meet after school to learn about food access and food justice in the Hartford community. In the summer youth are hired to work on the Grow Hartford Urban Farm, where they learn about urban agriculture, explore food justice issues and Hartford’s food system, and participate in field trips. Check the “Programs” tab on the website for details.

JOHNS HOPKINS CENTER FOR A LIVABLE FUTURE
Bloomberg School of Public Health
615 N Wolfe Street, W7010
Baltimore, MD 21205
(410) 502-7578
tfs@jhsph.edu
http://foodspanlearning.org/
Age Range: High school and university
Location: National

John Hopkins Center for a Livable Future (JHCLF) works with students, educators, researchers, policymakers, advocacy organizations and communities to build a healthier, more equitable, and resilient food system. One of their projects is FOODSPAN: Teaching the Food System from Farm to Fork, a free class-room ready curriculum with 17 lessons including: Exploring our Food System; Turning Toward Sustainability; Why We Eat What We Eat. Students are presented with lessons in the form of slides, handouts, vocabulary builders, and other materials. There is also a catalog of lesson plans, courses, research tools and other educational resources for educators.

Sustainable Agriculture Resources and Programs for K-12 Youth

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LIBERTY PRAIRIE FOUNDATION
Prairie Crossing Farm
32400 N Harris Road
Grayslake, IL 60030
(847) 548-4062
http://libertyprairie.org/programs/youth-development/
Age Range: High school - university
Location: Illinois

Liberty Prairie Foundation supports educational programming at the Prairie Crossing Farm. Their youth education program, The Prairie Farm Corps, helps lay the groundwork for a more resilient local food system by immersing youth in sustainable agriculture, providing mentoring, and reflecting on the collaboration between land and living systems. A diverse group of students get paid work experience on the Prairie Crossing Farm and gain job skills applicable to any career, the capacity to grow and cook fresh vegetables, and a hands-on introduction to sustainable agriculture. The Prairie Farm Corps is based on The Food Project, and uses some of their published educational curriculum.

PRAIRIE ROSE AGRICULTURAL INSTITUTE FOR RESEARCH, INNOVATION, AND EDUCATION (PRAIRIE)
417 9th St. S.
Moorhead, MN 56560
(218) 329-5139
Age Range: high school – young adult
https://www.prairieinstitute.net/

PRAIRIE is a non-profit multicultural collaborative. Their mission is: Uniting compassionate hearts & skills from many cultures for a renewal of health, agriculture, and community. PRAIRIE’s Youth Initiative project involves high school students, teachers and community members in habitat restoration and food production on schoolyards and natural areas. Through hands-on work with farmers and natural resource practitioners, plus meetings with chefs and grocers, youth learn about careers in regenerative and sustainable agriculture and natural resources. The program has a focus on local food, natural habitat, and inclusion of under-represented people. Lesson and activities are based on a 10-step K-20 project-based Earth Partnership and Indigenous Arts and Sciences curriculum developed in collaboration with local schools, tribal and community colleges and universities in Wisconsin and Minnesota. This project was funded in part through an NCR-SARE Youth Educator grant. To learn more, see: YENC21-162 - Multicultural FOOD and ECOLOGY Youth Initiative

PURDUE SOIL HEALTH
Purdue Extension
615 West State Street
West Lafayette, IN
(765) 494-8491
https://www.asec.purdue.edu/soilhealth/
Age Range: High school
Location: Indiana and national

Purdue Soil Health, provides hands-on soil health educational activities for high school teachers, a photo and video library, and general information about Purdue soil health research and educational workshops. Ultimately, the goal of this collaborative work is improved, soil-friendly farming and gardening practices, thereby improving environmental quality, sustainability, and efficiency. The project was supported by a Professional Development Program grant through the NCR-SARE program. For more information about this project and the resulting curriculum, read the final report at: ENC16-152 - Soil Health Education Resources for Teachers
Scattergood is a Quaker-based college preparatory boarding and day school. The school’s 126-acre campus includes a 35-acre farm with an organic vegetable garden, greenhouse, and livestock. The majority of food served for meals comes directly from Scattergood Farm in the form of organic fruits and vegetables, pastured pork, chicken and eggs and grass-fed beef and lamb. The Farm is a regular part of a Scattergood student’s life, serving as a living laboratory for various classes and projects. Students might take part in a farm crew, prepare locally grown food, or take farm data for a science lab. Scattergood Farm is also an important feature in the Scattergood academic curriculum, providing students with real-world examples to facilitate their understanding of key concepts. Scattergood has had several projects funded in part by NCR-SARE grants. Read about them at the following links:

- **YENC10-023** - Green Manure vs. Brown Manure in an Organic Vegetable System
- **YENC14-077** - Integrating High Tunnel Vermicomposting in a High School Science Curriculum
- **YENC15-092** - Erosion Control and Pollinator Habitat through Perennial Plantings on Scattergood Friends School Farm

Seeds of Solidarity Education Center is non-profit organization in Orange, MA that “awakens the power of youth, schools, and families to Grow Food Everywhere to transform hunger to health, and create resilient lives and communities.” Their *Seeds of Leadership* curriculum reflects the sequence that is carried out for the first 12 weekly sessions of their *Seeds of Leadership Garden* program each year, with a group of approximately 20 young people aged 15-18. Topics include Food and Energy, Farm to Fork, Social Justice in Food Systems, Youth Changemaking, Sustainability and Stewardship, and more. See the curriculum guide here: *Food for the SOL: A Food, Justice and Community Building Curriculum for Youth*
SPROUT IT OUT LOUD! URBAN FARMER APPRENTICESHIP PROGRAM AND CURRICULUM
Franklinton Farms
867 W. Town St., Suite A
Columbus, OH 43222
https://franklintonfarms.org/
Age Range: High School, young adults
Location: Ohio

Franklinton Farms is a nonprofit urban farm and learning garden in Columbus, Ohio that uses sustainable agriculture to address their community’s most pressing challenges. They utilize urban farming and neighborhood distribution programs to improve food security and support healthy futures for their neighbors. Franklinton Farm’s Sprout youth education program pays youth to participate in an intensive apprenticeship highlighting the sustainable urban agriculture practices of Franklinton Farms, including hard sustainable agriculture skills in the areas of production, marketing, and distribution. Additionally, the program responds to the needs of teens in their community by integrating soft skills of mindfulness, self-expression, and collaboration. This apprenticeship program was partially funded by an NCR-SARE Youth Educator Grant. For more information, see the grant report and associated curriculum at: YENC21-158 Sprout it Out Loud! Urban Farmer Apprenticeship Sprout it Out Loud! Youth Apprenticeship Program curriculum

SUSTAINABLE AGRICULTURE LEARNING MODULES FOR HIGH SCHOOL AGRICULTURE
University of Nebraska-Lincoln
Lincoln, NE 68583
(402) 472-1581
http://passel.unl.edu/communities/sustainableag
Age Range: High school
Location: Nebraska

University of Nebraska educators worked with high school students to create educational modules in sustainable agriculture. Ten farmers in eastern Nebraska were paired with students at nearby high schools, who interviewed the farmers about their operations. The result is ten different views of agriculture – ten different examples of what “sustainability” might look like in practice. This program was partially funded by an NCR-SARE Professional Development Program Grant. See the video modules at the link above. For more information, see the grant report at: ENC10-116 - Sustainable Agriculture Learning Modules for High School Agriculture.
SUSTAINABLE AGRICULTURE RESEARCH AND EDUCATION (SARE)
College of Agriculture and Natural Resources
University of Maryland
Symons Hall, Room 1296
7998 Regents Drive
College Park, MD 20742- 5505
(301) 453-5339
https://www.sare.org/
Age Range: High School through Adult
Location: National

Since 1988, SARE has helped advance farming systems that are profitable, environmentally sound, and good for communities through a nationwide grants and outreach program. For information on grant programs, go to the website and search for grants available in your region (Northeast, North Central, Southern, or Western). SARE publishes books, bulletins, and online resources highlighting SARE-funded project results and other innovative research. Online resources are free. The program is funded through USDA’s National Institute of Food and Agriculture (NIFA) Program.

SARE provides resources that are useful for youth education including the brochure and animated series What is Sustainable Agriculture?, and youth education curricula created through SARE grants (see: https://projects.sare.org/ to search the grant project database).

TEENS FOR FOOD JUSTICE
33 W 60th Street, Ste. 1211
New York, NY 10023
(917) 398-5077
https://teensforfoodjustice.org/
Age Range: 12-18
Location: New York

The Teens for Food Justice mission states: TFFJ fights food insecurity and diet-related disease through school-based, youth-led hydroponic farming, providing local, sustainably-grown produce to food desert communities and building health equity for all New Yorkers and beyond.

This after-school program trains youth, ages 12 to 18, to build and maintain indoor hydroponic farms that serve as local sources for fresh food and centers for nutrition and health education in their schools and communities. Students learn about urban farming technology and sustainable food systems as they grow food for their school, families, and neighbors, and are trained as health and nutrition ambassadors.
Recommended for Educators

ATTRA – Sustainable Agriculture Program
P.O. Box 3838
Butte, MT 59702
800-346-9140 (English)
800-411-3222 (Español)
askanag@ncat.org
https://attra.ncat.org/
Location: National

ATTRA is a program developed and managed by the National Center for Appropriate Technology (NCAT). ATTRA provides high-value information online and through publications, podcasts, videos, webinars and more on topics ranging from agroforestry to water management. Agriculture specialists provide one-on-one technical assistance to farmers, ranchers, Extension agents, educators, and others involved in sustainable agriculture in the United States by email or via their toll-free numbers. ATTRA was formerly known as Appropriate Technology Transfer for Rural Areas but is now know by the acronym ATTRA.

NATIONAL FARM TO SCHOOL NETWORK (NFSN)
P.M.B. #104
8770 West Bryn Mawr Ave, Suite 1300
Chicago, IL 60631-3515
https://www.farmtoschool.org/
Age Range: Youth Educators
Location: National

National Farm to School Network is an information, advocacy and networking hub for communities working to bring local food sourcing and food and agriculture education into school systems and early care and education environments. Their mission is to: increase access to local food and nutrition education to improve children’s health, strengthen family farms, and cultivate vibrant communities. In 2020, NFSN launched a new Call to Action: By 2025, 100% of communities will hold power in a racially just food system.

NFSN provides online resources and hosts webinars for starting and operating farm to school programs. Some of their work includes:
- Farm to Early Care and Education, Cultivating healthy habits for our littlest eaters: https://www.farmtoschool.org/our-work/early-care-and-education
- Farm to School in Native Communities, Teaching the future from the past: https://www.farmtoschool.org/our-work/native-communities
- Seed Change, Growing farm to school in states and communities: https://www.farmtoschool.org/our-work/seed-change

Check the “Resources” tab for information on topics including Culinary Education, Farm-based Education, Food Justice, School Gardens and much more.

Sustainable Agriculture Resources and Programs for K-12 Youth
NORTH CENTRAL REGION - SUSTAINABLE AGRICULTURE RESEARCH AND EDUCATION (NCR-SARE)
Youth Educator Grant Program
Lincoln University
Lorenzo J. Greene Hall
900 Leslie Boulevard, Suite A
Jefferson City, MO 65101
(573) 681-5545
https://northcentral.sare.org/grants/
Age Range: For Youth Educators teaching students of all ages
Location: Regional (North Central region states only)

NCR-SARE is part of a national grants and outreach program funded by USDA’s National Institute of Food and Agriculture (NIFA).
Youth Educator Grants of up to $6000 are available for educators to teach young people about sustainable agriculture and to help youth and their parents explore sustainable practices and career options. Grants are available for Youth Educators in the 12 North Central states: IA, IL, IN, KS, MI, MN, MO, NE, ND, OH, SD, and WI.

NCR-SARE maintains a webpage with Youth Education resources including a Sustainable Agriculture Poster at:
https://northcentral.sare.org/resources/resources-for-youth-education/.

USDA FARM TO SCHOOL
USDA Food & Nutrition Service
Braddock Metro Center II
1320 Braddock Place
Alexandria, VA 22314
(703) 305-2062
Age Range: For educators and organizations supporting Farm to School efforts
Location: National

USDA’s Food & Nutrition Service provides a wide variety of resources in support of Farm to School programs. They include:

- **Farm to School Grant program.** On an annual basis, USDA awards competitive Farm to School grants that support planning, developing, and implementing farm to school programs. The grants help state, regional, and local organizations as they initiate, expand, and institutionalize farm to school efforts. See: https://www.fns.usda.gov/cfs/farm-school-grant-program.
- **The Farm to School Planning Toolkit** guides teachers through questions to consider and helpful resources to reference when starting or growing a farm to school program. It is designed for use by schools, school districts, and community partners. See: https://www.fns.usda.gov/cfs/farm-school-planning-toolkit
- USDA’s **Farm to School Program Fact Sheets Page** covering a variety of topics, ranging from school gardening to local meat.
- The report **Cultivating Opportunity: An Overview of USDA’s Fiscal Year 2015 and 2016 Farm to School Grantees’ Growing Achievements.** This report highlights farm to school program trends and best practices and features baseline data provided by grantees which is used to assess the impact of the grant program on the growth of the farm to school movement nationwide.
- **Seeding Success Webinars** providing technical assistance that supports farm to school grantees to develop, expand, and maintain robust farm to school programs, projects, or initiatives.
The Occidental Arts & Ecology Center (OAEC) is an 80-acre research, demonstration, education, advocacy and community-organizing center in West Sonoma County, California that develops strategies for regional-scale community resilience and the restoration of biological and cultural diversity. OAEC operates the Resilient Schools Program which supports public school districts nationwide serving vulnerable populations in designing long-term ecological, economic and cultural resilience into their classroom curriculum, campus environment, and surrounding community. Resilient Schools Training is held for teams of school community stakeholders in a K-12 district to design a long-term Resilience Action Plan (RAP). School Garden Teacher Training is for educators to learn the basics of organic gardening, permaculture garden design, curricular integration, team building, community organizing, fundraising and more. The program connects to Common Core Standards and Next Generation Science Standards with a STEM focus. The goal is to support school teams in integrating the instructional school garden into multiple subject areas using place-based, experiential learning.

The mission of the Sustainable Agriculture Education Association (SAEA) is to promote and support the development, application, research, and exchange of best teaching and learning practices in sustainable agriculture education and curricula through communication, training, development, and collaborative activities for teachers and learners.

SAEA serves and connects educators, teachers, students, staff, and administrators who focus on the teaching and learning of sustainable agriculture at the adult level. They do this by hosting conferences, collecting sustainable agriculture educational program listings, and developing a digital library, among other activities. See the “Resources” tab on the website for their Curriculum Library at: https://ln2.sync.com/dl/50e4c4600/2abkwn9g-j8m27947-9m88y4tc-qvmhtute.
SCHOOL OF ADAPTIVE AGRICULTURE
16200 North HWY 101
Willits, CA 95490
https://schoolofadaptiveagriculture.org/
Age Range: Adult
Location: Regional

The School of Adaptive Agriculture (SAA) is a residential training program that equips the current and next generation of farmers with essential skills in the science, art and business of food production. Their 12-week Residential Practical Program combines experiential learning while living and working side-by-side with other farmers on a 5,000-acre working ranch in Mendocino County, California with classroom-based learning in order to send students off with a comprehensive vocabulary, skill set, and understanding of the foundations of small scale agriculture. Over 25 field trips and 12 guest instructors participate in this unique learning experience, giving students a well-rounded education that helps launch them into their career in the food system. A Virtual Workshop Series is also offered, to those seeking to build their knowledge and skills in the science, art and business of food production.

UNITED NATIONS EDUCATIONAL, SCIENTIFIC AND CULTURAL ORGANIZATION (UNESCO)
Liaison Office with the United Nations,
D.C. II Building, 2 UN Plaza, Office No. 900,
New York, NY 10017
(212) 963-5978
http://www.unesco.org/education/tlsf/index.html
Age Range: Pre-service and in-service teachers
Location: International

Teaching and Learning for a Sustainable Future is a multimedia teacher education program published by UNESCO. It contains 100 hours (divided into 27 modules) of professional development for use in pre-service teacher courses as well as the in-service education of teachers, curriculum developers, education policy makers, and authors of educational materials. It approaches sustainable agriculture within the context of other contemporary issues such as sustainable development, sustainable tourism, sustainable communities, and globalization.

Find the lesson on sustainable agriculture under Contemporary Issues at:
http://www.unesco.org/education/tlsf/docs/tlsf_doclist.html