



Illinois 4-H Signature Program Overview

Feeding and Growing Our Communities

Extension Grand Challenge: Food - Food Access, Food Production

STATE CONTACT: Mark Becker (mbbecker@illinois.edu)

BRIEF DESCRIPTION: The perfect beginning for any gardening or agricultural education program. Engage youth in planning, designing, and implementing their own garden. Help foster a love of gardening, develop an appreciation for the environment, build science skills, and cultivate the mind through diverse learning experiences. Curricular and material support is made available while supplies last.

TARGET AUDIENCE: Youth between the ages of 8 – 18 such as 4-H clubs, 4-H Federations, in-school and after-school programs and other positive youth development settings.

KEY OBJECTIVES

- Plan, design, and implement their own garden or food education project
- Gain practical skills with a variety of growing methods and technologies
- Identify opportunities for community service
- Strengthen their understanding of where their food comes from through hands-on learning

TOOLKIT

Toolkit includes curricular and material resources which can be selected by educators and staff depending on the audience you want to reach and your programmatic goals.

Supported Curricular Resources

- **Junior Master Gardener:** [Learn, Grow, Eat & GO!](#)
 - Junior Master Gardener 'Learn, Grow, Eat & GO' curriculum toolkit is for grades Pre-K - 5 and is available in English and Spanish.
- **Purdue Gardening:** [Leader's Guide PDF](#)
 - The Purdue Gardening Curriculum is for grades 5-12 and is broken down into four different skill levels.
- **Ag in the Classroom:** [ILAITC Website](#)
 - The Illinois Ag in the Classroom organization has developed a variety of engaging classroom and after-school activities for all grade levels focused on teaching young people where their food comes from.
- **Hydroponics:** [Soilless Growing Systems Guide](#)
 - The University of Tennessee 4-H program has developed a curriculum for grades 9-12 with the goal of helping students learn about and start their own hydroponics gardening system.

Material Support

As part of your registration for the Feeding and Growing Our Communities Signature Program, you can receive curricular resources as well as material resources to support your gardening / agriculture-related education program. Below is a list of materials that can be made available and shipped to your site. Please indicate which would be most relevant for you in the registration.

- 72 Cell Seed Starting Tray
- Monarch Sanctuary Seed Kit
- 35 Pack Garden Vegetable Seed Kit
- Gardening Tool Tote Bag
- 30 Gallon Canvas Gardening Grow Bag
- Organic All Purpose Gardening Soil
- Gardening Gloves (Youth)
- 2 Gallon Watering Can
- Mini Shovel D - Handle X 10
- 3 pc Garden Hand Tools X5

CROSS-EXTENSION, CAMPUS AND COMMUNITY COLLABORATORS

- Horticulture, Small Farms/Local Foods Educators and SNAP-Ed Educators.
- Food banks, food pantries
- Community and civic organizations
- In-School and After-School programs

OPTIONAL PROGRAM ACTIVITIES/EXPERIENCES

Clubs wanting to focus on food access and food security are encouraged to collaborate with the local SNAP-Ed Educator in your area. SNAP-Ed educators can serve as a resource for connecting your club to local food advocacy work. Additionally, SNAP-Ed educators can help to educate your club on food access and food security issues statewide and in your local community.

Additional food access resources can be found at:

- <https://map.feedingamerica.org/> - A searchable online database for finding data regarding food insecurity in your county.
- <https://eat-move-save.extension.illinois.edu/> - The Illinois SNAP-Ed program website, includes the Find Food IL resource map designed to educate communities about the food resources available in their area.
- <https://www.feedingillinois.org/> - A resource to find information about food banks and food pantries in your area.

REGISTRATION

Please register at the following link: [Jot Form Signature Program Link](#)



Illinois Extension
UNIVERSITY OF ILLINOIS URBANA-CHAMPAIGN

BUDGET AND FUNDING SUPPORTS

The primary funding source made available through the State 4-H Office is to support the purchase of the curricular and material resources needed to achieve your programming goals. Groups should coordinate program expenses with their Unit Extension Office. Collaborations with local donors looking to make an impact on food access in the community are also suggested.

Additional funding is also available from the Food Advocacy Grants which are available several times a year through the State 4-H Office. See the following link for more information: [Gardening, Agriculture and Food Access Page](#)

Funding available in partnership with U of I Extension Master Gardener program through the Know More, Grow More grant. Details on how to apply are available from Candice Hart, State Master Gardener Specialist at mille116@illinois.edu

EVALUATION TOOL

Youth Participants: You can find the evaluation for FGOC online through Qualtrics at this link: https://illinoisaces.co1.qualtrics.com/jfe/form/SV_eS8tVKANNJOEQIM

If you need a paper copy, please contact Mark Becker: mbbecker@illinois.edu



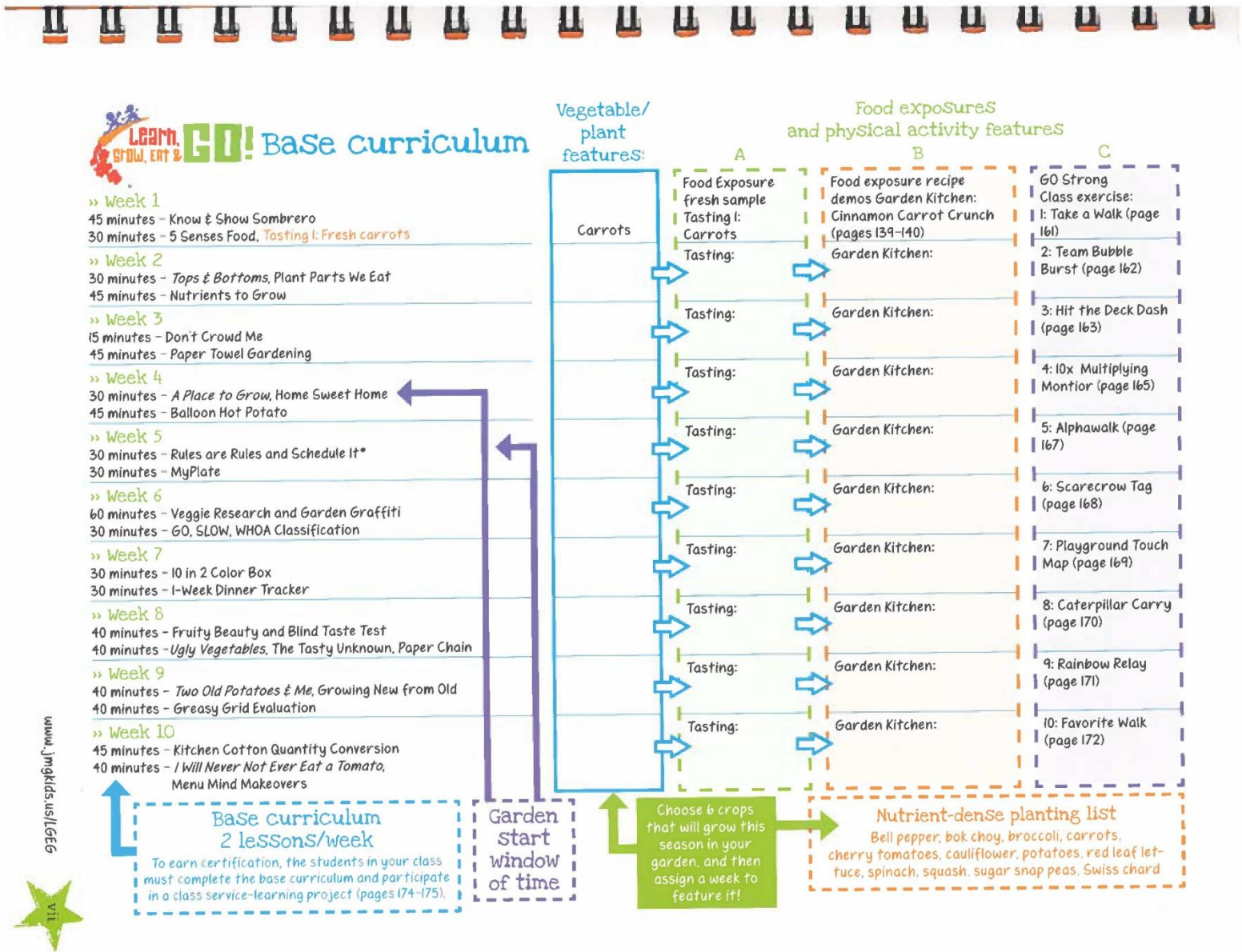
Illinois Extension
UNIVERSITY OF ILLINOIS URBANA-CHAMPAIGN

CURRICULAR RESOURCES PREVIEW

Please see the previews provided below to get a look into what the curricular resources offer.

JMG Learn, Grow, Eat & GO!

You can find detailed information about the curriculum on their website, you can also see the overview provided below.



Illinois Extension
UNIVERSITY OF ILLINOIS URBANA-CHAMPAIGN

Purdue Gardening Curriculum

For an overview of the curriculum, see the Leaders Guide PDF link included in this document available on the Purdue Extension website.

Illinois Ag in the Classroom

For an overview of the activities offered by ILAITC, see their website linked in this document.

Hydroponics

For an overview of the Hydroponics curriculum developed by Tennessee 4-H, please see the table of contents and the science standards included below.

Table of Contents

Life Skills	4
Next Generation Science Standards	8
Common Career Technical Core Standards	9
Chapter 1	10
Activity 1: An Introduction to Soilless Growing Systems.....	11
Activity 2: Connecting to the Big Picture of Agriculture	21
Activity 3: Types of Soilless Growing Systems.....	31
Chapter 2	42
Activity 4: Soil as a Limited, Valuable Resource.....	43
Activity 5: Soilless Substrates.....	55
Activity 6: Water and Air Capacity.....	62
Chapter 3	70
Activity 7: Plant Nutrition.....	71
Activity 8: Plant Nutrition Solution Management.....	82



Illinois Extension
UNIVERSITY OF ILLINOIS URBANA-CHAMPAIGN

Plant System Standards

Code	Standard	Activity
AG-PL-1	Develop and implement a crop management plan for a given production goal that accounts for environmental factors.	1-8
AG-PL-2	Apply the principles of classification, plant anatomy and plant physiology to plant production and management.	2-8
AG-PL-3	Propagate, culture and harvest plants and plant products based on current industry standards.	2-8

Source: Common Career Technical Core. (2014). Retrieved from https://cte.careertech.org/sites/default/files/CCTC_Standards_Formatted_2014.pdf



Illinois Extension
UNIVERSITY OF ILLINOIS URBANA-CHAMPAIGN

Science Standards

Code	Standard	Activity
HS-LS1-5	Use a model to illustrate how photosynthesis transforms light energy into stored chemical energy.	1
HS-LS2-5	Develop a model to illustrate the role of photosynthesis and cellular respiration in the cycling of carbon among the biosphere, atmosphere, hydrosphere, and geosphere.	1
HS-ESS3-1	Construct an explanation based on evidence for how the availability of natural resources, occurrence of natural hazards, and changes in climate have influenced human activity.	2
HS-ESS3-2	Evaluate competing design solutions for developing, managing, and utilizing energy and mineral resources based on cost-benefit ratios.	2
HS-ESS3-4	Evaluate or refine a technological solution that reduces impacts of human activities on natural systems.	2
HS-LS2-7	Design, evaluate, and refine a solution for reducing the impacts of human activities on the environment and biodiversity.	3
HS-ETS1-1	Analyze a major global challenge to specify qualitative and quantitative criteria and constraints for solutions that account for societal needs and wants.	3
HS-ETS1-2	Design a solution to a complex real-world problem by breaking it down into smaller, more manageable problems that can be solved through engineering.	3
IIS-ETS1-3	Evaluate a solution to a complex real-world problem based on prioritized criteria and trade-offs that account for a range of constraints, including cost, safety, reliability, and aesthetics, as well as possible social, cultural, and environmental impacts.	3
HS-LS1-2	Develop and use a model to illustrate the hierarchical organization of interacting systems that provide specific functions within multicellular organisms.	4
HS-PS1-5	Apply scientific principles and evidence to provide an explanation about the effects of changing the temperature or concentration of the reacting particles on the rate at which a reaction occurs.	5
HS-PS1-6	Refine the design of a chemical system by specifying a change in conditions that would produce increased amounts of products at equilibrium.	6
HS-PS1-3	Plan and conduct an investigation to gather evidence to compare the structure of substances at the bulk scale to infer the strength of electrical forces between particles.	7
HS-PS1-2	Construct and revise an explanation for the outcome of a simple chemical reaction based on the outermost electron states of atoms, trends in the periodic table, and knowledge of the patterns of chemical properties.	8

Source: Next Generation Science Standards. (2018). Retrieved from nextgenscience.org



Illinois Extension
UNIVERSITY OF ILLINOIS URBANA-CHAMPAIGN