



# Farm to Early Care and Education

Indiana Grown for School Network  
Farm to School Toolkits

# Table of Contents

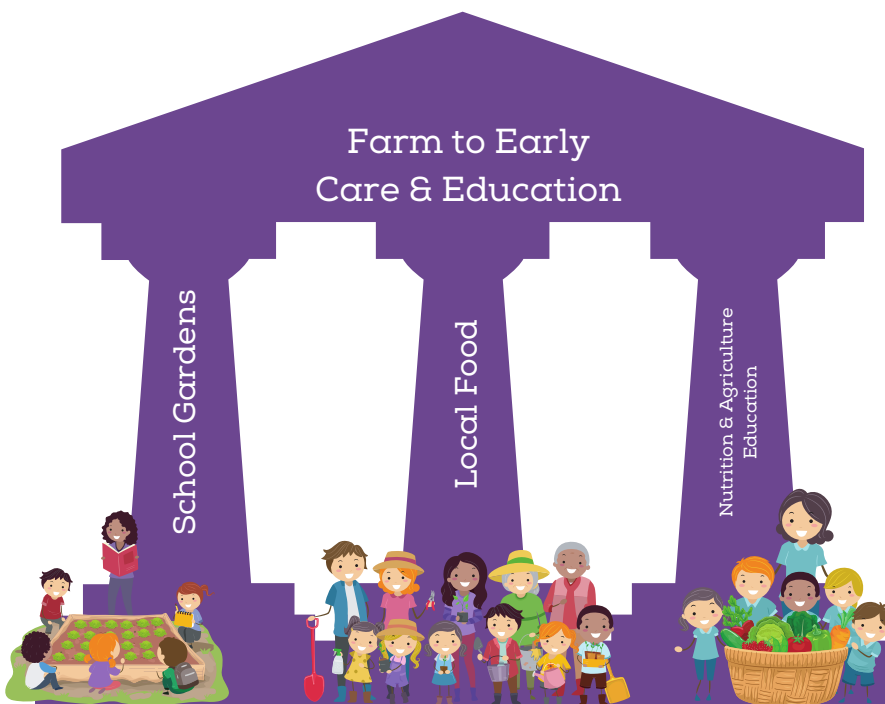


<b>Introduction</b>	1
What is Farm to ECE?	1
Acquiring Support for Farm to ECE	2
Funding	6
Farm to ECE Benefits	8
Farm to ECE Structure in Indiana	12
Getting Started in Farm to ECE	14
Gathering and Evaluating Data	17
Technical Assistance	20
<b>Chapter 1: Nutrition Education</b>	22
Curricula	23
Farm to ECE Learning Activities	36
Nutrition Education Resources	50
<b>Chapter 2: Farm to ECE Gardens</b>	51
Getting Started	52
Garden Varieties	56
Farm to ECE Garden Activities	66
Where to Find Low-Cost Garden Supplies	67
<b>Chapter 3: Procurement</b>	69
Getting Started with Buying, Preparing, and Serving Local Foods	70
Meal Patterns	74
Using CACFP Funds	78
CACFP Meal Pattern Requirements	79
How to Work with Producers	80
<b>Index of Resources</b>	81
<b>Appendix</b>	109
Appendix A: CDC Fact Sheet on Farm to ECE	109
Appendix B: Local Foods Procurement Assessment	111
Appendix C: Menu Planning Worksheet	114

# INTRODUCTION

## What is Farm to ECE?

Farm to Early Care and Education (Farm to ECE) has three main pillars: school gardens, local food procurement, and nutrition and agriculture education to promote lifelong wellness in children. Within this programming, local foods are purchased (procurement), promoted and served in the cafeteria, at snack times, or within classroom taste-tests. Students also participate in activities and academic lessons related to agriculture, food, health, and nutrition and engage in hands-on, experiential learning through gardening. As a result, children increase their nutritional awareness while giving parents and caregivers the opportunity to engage in child nutrition and education.



### Key Words

#### **Nutrition and Agriculture Education:**

educational activities that teach children how food grows, what it tastes like, what it feels and looks like, and where it comes from through experiential learning and activities such as arts and crafts, songs, books, taste tests, farmer and field trip visits, and cooking classes

**Procurement:** introducing nutritious and fresh products by purchasing or ordering directly from a produce or distributor, purchasing local products from a grocery store, or purchasing products from food hubs or farmers' markets.

**School gardens:** hands-on gardening experiences that enhance physical and social skills while encouraging children to try new fruits and vegetables.

The activities promoted through Farm to ECE can also prompt behavioral change and promote healthy behaviors for families and community members. Farm to ECE initiatives can engage families and communities, support early child development, and help meet learning and programmatic standards. Additionally, Farm to ECE programs serve as a tool for advancing racial and social equity by increasing access to nourishing foods for historically and contemporarily oppressed communities. These initiatives support the next generation of consumers by promoting sustainable, just, local, and nutritious food systems. Farm to ECE can be implemented in a variety of settings, including preschools, child care centers, family child care homes, registered ministries, Head Start/Early Head Start, and programs in K-12 school districts.

# Acquiring Support for Farm to ECE

---

In this toolkit, numerous resources and strategies to build support for your Farm to ECE program. Ensuring staff, faculty, administrative, parent, and community support is essential for the sustained success of your program.

## Internal Support

Administrative, faculty, and staff support can help implement a successful Farm to ECE program. If your program exists within a school environment, most schools require administrative permissions before program implementation can occur. Within a large center, support from faculty may increase the likelihood of a program being approved and implemented. Furthermore, having a number of faculty members in support of this programming allows for components of Farm to ECE to be incorporated into a variety of classroom topics and lessons. Staff members may also provide additional resources, as there may be staff members with significant nutrition or agriculture education, gardening experience, procurement background, or other critical skills they may be willing to contribute. The involvement of multiple staff members also allows for individuals to offer opinions and insights on program implementation and curricula. Ultimately, staff and faculty support makes implementation of these programs significantly more feasible and manageable. Alternatively, small centers, home-based centers, or registered ministries with more limited staff support may find assistance through increased community and parent outreach (see below).



## Parent Support



Parents can serve as an incredible resource, bridging the gap between children and community centers and schools. Parents may be able to assist in gardening or connect staff members to fundraising resources and grant assistance, while those in the farming community can also provide expertise and advice. Parents can also influence a child's eating preferences and how a child feels about eating and drinking. Parents who are able to model nourishing eating behaviors can be critically influential to their child's long and short term uptake of Farm to ECE programming.

Ultimately, it is beneficial if parents are able to offer expertise and support in these programs or display excitement towards their children as they increase their nutritional knowledge and awareness. Some ways to incorporate and engage parents may be to:

- Engage parents and caregivers in dialogue:
  - Have resources available in multiple languages to enhance participation
  - Ask your families if there are any holidays or food traditions or celebrations that they'd like incorporated into your program.
  - Ask families for recipe ideas to be included in the menu of the program or during a taste test opportunity
- Communicate frequently and make it as personalized as possible, such as sharing photos of children in the garden or in the kitchen with families or on social media with parental permission
- Model for parents how to identify the emotions of their children in the garden or at the dinner table, such as happiness or surprise
- Model for parents how to develop a child's sense and expand food awareness by providing them foods to touch or taste at home
- Provide opportunities for parents to identify developmental milestones while cooking or gardening together

See the link attached [here](#) for more tips on how to engage parents and families in the Farm to ECE process.

## Community Support

Community support can occur in multiple forms, including regional networks within the Indiana Grown for Schools Network, local food councils, and online programs and coaches.



**The Indiana Grown for Schools Network** contains and provides resources via a user-friendly hub that allows users to filter by topics such as school gardens, menus and recipes, getting started, nutrition education, and procurement.

- [Indiana Grown for Schools Network](#)

**IDOE School and Community Nutrition Program** is the administering agency for the U.S. Department of Agriculture's Child Nutrition Programs, including the Child and Adult Care Food Program (CACFP). Along with working closely with food service professionals that serve nutritious meals to eligible recipients, they provide a variety of technical assistance and training opportunities with the aim of helping the state's children choose healthy life styles for successful living.

- [Division of School and Community Nutrition](#)

**Local food councils** allow individuals and community groups of different backgrounds and expertise to connect and network to mobilize ideas and solutions to food-related issues. Local food councils are also useful for forging connections with farmers markets, Community Supported Agriculture (CSAs), and local producers for local food procurement efforts.

There are several local food councils in Indiana that may allow you to connect with government policymakers, provide access to support for idea implementation, serve as a mechanism for voicing needs and concerns, and present opportunities for recent feedback about Farm to ECE initiatives.



### [Local Food Councils](#)

**Purdue University Extension** provides programs, resources, and workshops related to Farm to School topics, such as Livestock and Poultry, Farmers' Markets, Grass to Garden, and more. Purdue Extension also offers free assistance through Community Wellness Coordinators, who can provide advice on school and community gardens, Farm to School, farmers markets, school wellness, and other relevant topics. You can connect with these coordinators within your community for resources, support, and linkages.



- [Purdue Extension Farm to School Homepage](#)
- [Purdue Extension Health and Human Sciences Homepage](#)
- [Purdue University Extension: Nutrition Education Program \(NEP\)](#)
- [Purdue University Extension: Community Wellness Coordinator](#)

**Go NAPSACC** is another incredibly useful tool that walks childcare providers through five simple steps to make healthy and meaningful changes to their programs. This program offers modules on key topics like healthy eating and child nutrition, Farm to ECE, physical activity, outdoor play and learning, and oral health. To enroll in the program and receive support, childcare providers in Indiana can contact the Spark Learning Lab (Spark Learning Lab, [help@indianaspark.com](mailto:help@indianaspark.com)) or visit the Go NAPSACC page to find more information.



- [Go NAPSACC](#)



**The SPARK Learning Lab** consists of team members serving early care and education programs across the state of Indiana. Services provided include access to coaching and content specialists trained in family engagement, inclusion, education, and other skills, program assessment tools, and in-person and online training.

- [Indiana Spark Learning Lab](#)

# Funding

---

Funding for Farm to ECE programs may be used for improving professional development and training for ECE providers, increasing staffing in childcare agencies to support Farm to ECE implementation, adding improvements to ECE facilities to facilitate food preparation and gardening, or implementing projects to increase nutrition education in ECE sites. Securing funding through multiple sources is ideal to ensure a steady flow of resources if one source happens to be lost.

Fundings for Farm to ECE programs may be secured through a variety of ways. Donations may be obtained from local nurseries or hardware stores in the forms of monetary contributions or items needed for your program. Grant opportunities may be one mechanism to secure funding; these opportunities may arise through local, state, or federal levels. Some funding opportunities you may want to explore are:

- The Scotts Miracle-Gro Foundation and NHSA grant program awards Head Start Programs grant amounts to supplement needs of existing garden projects and to help launch new garden projects. Recipients will also receive a gift card for the purchase of garden curriculum materials, tools and additional gardening resources. See more [here](#).
- The Scotts Miracle-Gro Foundation GroMoreGood Grassroots Grant is open to all non-profit organizations in the United States. Awards provide funding for the development of new and expansion of existing youth garden programs and green spaces serving 15 or more youth. In 2021, a total of 175 programs were awarded, with 150 organizations receiving a check for \$500 and the top 25 winners will be awarded a check for \$1,000. See more [here](#).





- The USDA awards competitive Farm to School grants that support initiating, developing, expanding, and implementing farm to school programs. See more [here](#).



- Child and Adult Food Program (CACFP) funds can be used for Farm to ECE programs, as long as the produce grown in the garden will be used as part of the reimbursable meal or for nutritional education activities. Centers using garden produce in their CACFP reimbursable meals should document the weight and/or volume of the produce. If produce is sold (to parents, at a roadside stand, etc.) the revenue from the sale of the food needs to go back into the nonprofit food service account.



Fundraising can also be a useful tool for generating resources to support your programs. Additionally, there are many newsletters that regularly provide funding opportunities. For example, the National Farm to School [newsletter](#) includes recent funding and grant opportunities. For more questions about the costs associated with Farm to School, it may be helpful to visit the USDA's Farm to School expenses page [here](#).

### **Grant Resources:**

- [Indiana Grown for Schools Network Grant Technical Assistance](#)
- [KidsGardening: Grant Opportunities for School and Youth Garden Programs](#)
- [Seed Your Future: Educator Grants](#)
- [Creative Opportunities For Strengthening Farm to ECE Through Emerging Federal Funding Streams](#)

# Farm to ECE Benefits

---

The main goals of Farm to ECE programs include increased access to local and nutritious foods for children and students, increased education about food systems, local agriculture, and cultural relevance of food, improved support for local farmers and communities, and improved eating habits and a diversified range of food preferences during formative developmental years. Farm to ECE benefits include local economic development, student and community engagement and academic achievement. Additionally, Farm to ECE activities meet a variety of early learning standards for cognitive, social, and emotional development (see Farm to ECE Structure in Indiana section below). See [here](#) for peer-reviewed research on the benefits of Farm to ECE and [here](#) for an extensive fact sheet on Farm to ECE benefits.



## Economic Development

Farm to ECE provides numerous economic benefits to a community. In addition to providing and expanding healthy food access for children, procurement of local food for snacks and meals also provides additional economic opportunities and diversification of revenue streams for farmers. Schools and learning facilities may experience a decrease in meal program costs due to increased reliance on school garden products for foods. Government dollars used by CACFP can also be used to stimulate the local economy. Farm to ECE has also been shown to promote job creation and maintenance in the community; case study models have demonstrated that purchasing local foods stimulates economic activity to create 1-2 jobs in the local community. See the Index of Resources under “Farm to ECE Benefits” for more research highlighting the economic growth supported by Farm to ECE.

## Children's Health and Education

Farm to ECE can help improve children's overall health and development through engaging, high-quality learning environments and activities. Farm to ECE can foster academic growth as children often learn better by doing. These activities increase school engagement and positive attitudes about school and learning. Farm to ECE promotes increased knowledge in science and Science, Engineering, Technology, and Math (STEM) concepts at a young age, as children are provided with a foundation in agriculture, the environment, and gardening.

Farm to ECE also meets the universal design for learning (UDL) paradigm. UDL is a framework that addresses the needs of diverse learners by using multiple methods of engagement, representation, and expression, allowing children to create and explore at their developmental and comfort levels. The variety of activities integrated into Farm to ECE curricula invites and encourages all children to participate.





Students may have improved motor skill development and social-emotional learning as a result of Farm to ECE programming. Motor skills that may be improved by using garden equipment and cooking utensils, examining, sorting and touching seeds, developing coordination and balance by navigating a school garden, or tasting small bites of foods. Social-emotional learning refers to children learning to form friendships, communicate emotions, and process and express emotional challenges. Farm to ECE provides children with plenty of opportunities for social-emotional growth by improving self esteem and sense of self and developing social skills. For example, school gardens can help children feel like they are part of a community as they are learning to work together with common responsibilities and share a space. The independence and leadership skills demonstrated in a school garden space can translate indoors as children partake in cooking activities and tasting demonstrations. Caregivers and teachers may provide children opportunities to take ownership of activities such as washing produce, measuring ingredients, or preparing items for taste testing.

Healthy behaviors learned in ECE have been demonstrated to transcend throughout the lifespan. These programs result in better nutrition - when young children explore and taste new fruits and vegetables prepared in a variety of ways, they are more likely to eat and enjoy them. Finally, these programs have the potential to decrease diet-related diseases in childhood such as diabetes and obesity by promoting fresh produce consumption, especially for higher-risk or low-income students.

**See the Appendix for the Center of Disease Prevention and Control (CDC)'s fact sheet on the importance of reducing childhood obesity through incorporation of Farm to ECE settings.**

## Equity and Community Engagement

Farm to ECE activities create the space for children, caregivers, and families to learn and build healthy habits together. Farm to ECE promotes positive linkages between schools and communities, especially in low-income communities, and can influence neighboring communities to adopt or expand these initiatives. These programs can increase student appreciation for and knowledge of diverse cultures, foods, customs, and can engage diverse families in school activities.

Farm to ECE programming provides increased opportunities to reduce disparities in quality, amount, and variety of foods available and improve access to nutritious foods. Increased access to experiential learning has been linked to higher student test scores as students are more engaged with their material, thus helping to reduce barriers to equal access to education opportunities. The concepts emphasized in Farm to ECE promote environmental equity and link sustainability to social justice. Introducing young children to these crucial ideas through activities, conversations, and books can promote support and acceptance.

## Planetary Health

These programs serve to benefit the health of our planet as well. Farm to ECE results in reduced food waste and reduced transportation-related environmental effects such as air pollution. This programming supports sustainable and equitable approaches to food production by encouraging practices such as composting, recycling, and understanding of environmental health. Farm to ECE practices of sustainability can also be brought home to encourage families to incorporate environmentally sound practices into daily living.

# Farm to ECE Structure in Indiana

Farm to ECE in Indiana can serve as a complement to existing standards and can be easily implemented into existing Indiana Early Learning Foundations and other programmatic requirements. See examples below:

APL – Approaches to Play and Learning Foundation

CA – Creative Arts Foundation

ELA – English Language Arts Foundation

M – Mathematics Foundation

Indiana Early Learning Foundations	Farm to ECE Example
APL 1.1: Demonstrate initiative and self-direction	Take initiative to dig in the dirt and plant seeds as a new experience
APL 1.2: Demonstrate interest and curiosity as a learner	Focus on planting seeds and watering them with concentration despite distractions from other classmates
APL 3.1: Demonstrate development of sustained attention and persistence	Focus on planting seeds and watering them with concentration despite distractions from other classmates
APL 4.1: Demonstrate development of social interactions during play	Begin to accept and share roles and responsibilities given from the teacher for planting
CA 3.1: Demonstrate creative expression through the visual art process	Identify lines and shapes as part of the garden bed
CA 3.2: Demonstrate creative expression through visual art production	Create drawings or other visual art of a garden bed and the fruits and vegetables that are harvested
ELA 1.1: Demonstrate receptive communication	Listen and follow multi-step directions related to planting seeds

ELA 1.2: Demonstrate expressive communication	Describe planting experience with detail
ELA 2.3: Demonstrate awareness and understanding of concepts of print	Respond to and interact with books about gardening and planting
ELA 3.1: Demonstrate mechanics of writing	Create a simple sentence about the garden
M1.1: Demonstrate strong sense of counting	Be able to count the number of tomatoes on a tomato plant
M1.3: Recognition of number relations	Compare the quantities of tomatoes on each tomato plant
M2.2: Demonstrate awareness of patterning	Understand the sequence of events for planting seeds
M3.1: Demonstrate understanding of classifying	Sort a group of tomatoes in multiple ways: color, size, shape, etc.

Farm to ECE can also be easily incorporated into Powerful Practices for the Physical Health and Growth Foundation, outlined by the Indiana Early Learning Foundations Guidance within the Department of Education. According to the Indiana Department of Education, the development of healthy habits in early childhood allows for future independence in personal care, inspiring a lifelong commitment to wellness and health. Educators can play a role in this success by incorporating Farm to ECE principles in recommended Powerful Practices, such as:

- Providing opportunities and materials for children to participate in healthy practices
- Providing materials for children to engage in play related to healthy practices (healthy food options in play areas)
- Modeling healthy eating behaviors
- Using visual supports to promote healthy practices
- Distinguishing between nutritious and less nutritious foods

### **Farm to ECE in Indiana Resources:**

- Indiana Department of Education: Physical Health and Growth Foundation Guidance: 1 - Health and Well-Being

# Getting Started and How to Use the Toolkit

---

Farm to ECE offers numerous opportunities to enhance the educational experience and health of children through increased access to healthy and local foods and incorporation of gardening and educational activities. Farm to ECE is a win for students, families, farmers, and communities. To get started on developing a meaningful program for students and communities, follow these steps:

## Step 1: Start with what you have

Before incorporating Farm to ECE into an academic curriculum or child care center programming, it is important to consider what resources you have, such as people, time, space, and money and assess possible strengths and weaknesses. Some programs might not be able to incorporate multiple Farm to ECE aspects, but even one activity can make a difference. You might ask yourself a variety of questions such as:

- What outdoor or indoor space do you have access to for Farm to ECE activities?
- What tools do you have available for Farm to ECE activities? This may include refrigerators or garden supplies
- Are there local businesses that may be able to provide fundraising to support this programming?
- Are there any appropriate grants to help secure funding?
- What groups are available to provide support? Faculty, staff, parents, community organizations, local colleges or institutions?
- What are the current meal planning practices? Are there any opportunities to add local foods to your school or center's menu?
- What local food options do your current food distributors offer?
- Are there any initiatives and activities that fit naturally into your current programming and curriculum?



## Step 2: Choose focus areas

After evaluating your available resources and strengths and weaknesses, it may be helpful to identify a few focus areas for your program. Focus areas may include:

- School gardens
- Indoor garden models such as herb gardens
- Taste tests
- Hands-on cooking activities
- Food and garden lessons
- Local farmer visits or farm field trips
- Virtual opportunities such as greenhouse tours and Farm tours
- Connecting with associations for opportunities such as the Indiana Dairy Association
- Incorporation of local food in snacks and meals
- Increased parent and community engagement for nutrition education sessions
- Professional development training through SPARK Learning Lab

## Step 3: Develop attainable goals

It may be beneficial to start small with attainable goals to make integration of Farm to ECE practices more feasible. You might want to try more manageable tasks such as:

- Find a farmer, farmers market, grocery store, or wholesaler to connect you to local foods
- Plan a visit to your local farmers market to source a healthy snack for children
- Conduct a food education lesson that ties into existing learning objectives (i.e. building vocabulary through a food taste test)
- Start growing with an herb box in the classroom
- Identify snack or meal items that can incorporate local items
- Identify curricula, activities or books related to gardens, preparing and eating healthy foods, or learning about how food grows
- Contact a local nursery or hardware store for donations or other support for starting aspects of Farm to ECE such as a school garden

## Step 4: Build a Farm to ECE team and establish support from multiple groups

Create a Farm to ECE team that includes parents, teachers, local farmers, community members, groups and organizations, faculty, and staff members to help implement your program. Network with farmers, community organizations, childcare centers, schools, and institutions in your community to learn about food procurement and purchasing practices or activities to implement. While it isn't a requirement to assemble an extensive team and establish support from various organizations as this isn't feasible for all centers, it can help with the long-term sustainability of your program.

- While building your team and connecting with members of your community, it may be an appropriate time to design your budget and gather funds for your program through fundraising or donations. Farm to ECE activities can often be incorporated into a curriculum or program with little or no cost, but securing additional funds can promote further growth of your program. Please connect with the Indiana Department of Health [here](#) or the Indiana Grown for Schools Network [here](#) for further assistance.

## Step 5: Promote your program

Share your goals and actions with your community to promote Farm to ECE practices and even encourage other local communities to begin or expand their programs. You may promote your program by sharing information on lesson plans and recipes in parent newsletters or handouts, posting garden or field trip photos to a program website, bulletin boards, or on social media, or inviting local media sources to your Farm to ECE activities.

## Getting Started: Checklist Overview

- Start with what you have and evaluate resources, strengths, and weaknesses
- Develop attainable goals using SMART goals
- Choose focus areas
- Establish support from multiple groups (faculty and staff, parents, community)
- Develop a budget and construct Farm to ECE committee to ensure sustainability
- Gather funds for your program (via grants, fundraising, donations, etc.)
- Promote Farm to ECE within your community

# Gathering and Evaluating Data

---

The following metrics may be useful to gather as you design and implement your Farm to ECE program. Data can be useful as you apply for grants or communicate with parents, children, and the community about your Farm to ECE program.

**Taste test evaluation:** According to the CDC, it may take more than 10 exposures/tries before toddlers like new foods. Ask the children to evaluate their food with a thumbs up and thumbs down, and be sure to intentionally repeat produce choices. Share this information with parents.



**Types of gardens being utilized:** Inventory your gardens. A garden can be as simple as a small pot on a windowsill, or as elaborate as a large outdoor garden. These all count as Farm to ECE gardens.



**Type of produce and amount harvested (in lbs/oz):** Weigh and record the amount of produce the children harvest in the classroom or at community or program gardens. Let them see the impact of growing food as the season progresses. Try using hand-held hanging scales that are fun for children to use.



**Documented food policies:** Keep track of any documented policies connected to Farm to ECE initiatives (this could also include nutrition components - using local products). As an example, Nicholson Elementary in Crawfordsville is able to use the produce they grow in their school cafeteria. In order to do this, documented food safety practices must be followed. The teachers and local master gardeners overseeing the farm to school programming understand and follow the policy.



**Measure educator perception** of how children are being impacted by engaging in Farm to ECE activities. Keep track of your thoughts on the impact these programs are having on kids. This may include willingness to eat more fruits and vegetables, but also understanding of the farm to table processes.



## Environmental Assessment

A building and environmental assessment may be useful to evaluate the presence of structural supports, including nutrition services, staff, policies, and professional development opportunities. You should evaluate whether each component is fully in place, partially in place, under development, or not in place for your ECE site. Relevant components of a building assessment may include:

- Representative wellness committee or team
- Assignments that encourage student interaction with family and community
- Essential topics on nutrition
- Professional development for classroom teachers
- Local and/or regional products are incorporated into school meal programs
- Messages about agriculture and nutrition are reinforced throughout the learning environment
- School hosts a school fruit or vegetable garden
- School hosts field trips to local farms
- School utilizes promotions or special events such as tastings that highlight the local/regional products
- School hosts a farmer's market with parent and student involvement
- Local farmers and producers participate in career day activities
- Positive school environment that engages students
- Professional development on meeting diverse needs of students
- Promotion of staff member participation
- Communication with families through newsletters, photographs or take-home pamphlets
- Family engagement in school decision making
- Community involvement in school health initiatives, such as organizing an event for parents on selecting and preparing nutritious foods that meet their nutrition and budget needs
- Professional development opportunities for food service staff



### Resources: Data from Successful Farm to ECE Programs

- [Boulder County Farm to Early Care and Education Program Summary](#)
- [Results from the First Wisconsin Farm to Early Care and Education Provider Survey](#)

# Technical Assistance

---

There are several ways to connect with the Farm to Early Care and Education community in Indiana to receive support.

## Indiana Grown for Schools Network (IGFSN)

The IGFSN is committed to providing members with assistance during any stage of their Farm to ECE journey. The network is readily available to provide individualized assistance on program evaluation, grant writing, funding, and fundraising opportunities, and answers to general questions about Farm to ECE. If you'd like to request technical assistance, please fill out the form [here](#).



## Ways to get involved:

- Connect via social media! Please send in your success stories and activity ideas [here](#). You can also add your Farm to our [Indiana Buyer's Guide](#) by filling out the form [here](#). You can also contact IGFSN via Facebook or Instagram - feel free to use the hashtag *#INGrown4Schools* to connect and share your success!



## Indiana's SPARK Learning Lab

The SPARK Learning Lab consists of team members serving early childhood education and care programs across the state of Indiana as part of Go NAPSACC. Services provided include access to coaching and content specialists trained in family engagement, inclusion, education, and other skills, program assessment tools, and in-person and online training.

- [Indiana Spark Learning Lab](#)

## Child and Adult Care Food Program (CACFP)

The Child and Adult Care Food Program (CACFP) is a federal program within USDA that provides reimbursements for nutritious meals and snacks to eligible children enrolled at participating childcare centers, day care homes, after-school care programs, and emergency shelters. For more information about CACFP or to apply click [here](https://www.in.gov/doe/nutrition/child-and-adult-care-food-program/). <https://www.in.gov/doe/nutrition/child-and-adult-care-food-program/>.



### Ways to get involved:

- National CACFP Week is celebrated annually in the third week of March and is designed to raise awareness about the USDA's CACFP program and its goal of fighting hunger. This week serves as an excellent time to promote your Farm to ECE efforts as a tool for improving CACFP participation. Recipe links and activities for promoting CACFP week celebrations can be found [here](#).
- CACFP annual training for Indiana is available [here](#). Find courses on performance standards, infusing flavor and meat alternatives into meal programs, expanding your menu through culturally appropriate choices, and more.

### Newsletters to Follow

- [IGFSN Newsletter](#)
- [National Farm to School Network](#)
- [USDA - The Dirt](#)



## CHAPTER ONE

# NUTRITION AND AG EDUCATION

Nutrition education is an essential component of Farm to ECE. Integrating Farm to ECE into learning experiences in the classroom or care center provides children with opportunities to explore nourishing eating habits, develop tastes for a variety of foods, and gain experience preparing food. Introducing these experiences into a learning space should not be daunting and cause additional stress for a care provider or teacher. These teaching experiences can be woven into pre-existing curriculum and daily routines to bring children the added benefits of Farm to ECE while meeting Indiana learning standards and imposing no additional burdens. In this chapter, you can find examples of curricula that provide comprehensive learning plans with accompanying books, taste tests, and other activities to make for a seamless integration of these activities into your program. You can also find additional learning activities and book recommendations later in this chapter.



# Curricula

---

## Grow It, Try It, Like It!

*Grow It, Try It, Like It! Fun with Fruits and Vegetables at Family Child Care* is a curriculum offered by the USDA for early care providers and teachers, designed to provide garden-based nutrition education for children ages 3 through 5 years old. *Grow It, Try It, Like It!* is also designed to support providers in meeting the meal pattern requirements for the CACFP. The activities introduce children to touching, smelling, feeling, and tasting new fruits and vegetables. These activities aim to connect children to delicious and nutritious foods and the processes of growing and harvesting them. The curriculum is divided into six units for fruits and vegetables such as strawberries, spinach, cantaloupe, sweet potatoes, and more, each with five days of lessons and activities. Daily lessons include: hands-on, explorative activities to introduce the fruit or vegetable to children, activities that feature singing, dancing, and reading, education activities that include an introduction to MyPlate and the five food groups, tasting opportunities, and growing activities that focus on how and where each fruit or vegetable grows.

This program can help children learn a variety of skills, such as:

- Fine motor skills: holding and using utensils, feeling textures of different fruits and vegetables, sorting and planting seeds
- Science skills: learning what requirements a plant needs to grow
- Food safety: washing and preparing foods properly, washing hands and practicing appropriate hygiene
- Self esteem and independence: working alone or in groups for gardening and nutrition education activities

See the following pages for examples of activity plans from *Grow It, Try It, Like It!*

# Grow it, Try it, Like it!

## Cantaloupe Activity Chart

DAY 1 45 minutes	DAY 2 45-55 minutes	DAY 3 40 minutes	DAY 4 40-50 minutes	DAY 5 40-50 minutes
<b>MYSTERY BOX OR BAG</b>	<b>GROWING ACTIVITY</b>	<b>GROWING ACTIVITY</b>	<b>GROWING ACTIVITY</b>	<b>FOOD GROUP ACTIVITY</b>
<p>Can You Tell What's Hiding?</p> <p>15 minutes</p> 	<p>Cantaloupes Start as Seeds</p> <p>10 minutes</p>	<p>Plant a Cantaloupe Seed in a Cup</p> <p>15 minutes</p> 	<p>Plant a Cantaloupe Seed or Starter Plant Outdoors</p> <p>15 minutes</p>	<p>Cantaloupe Is a Fruit</p> <p>20-25 minutes</p>
<b>TASTING ACTIVITY</b>	<b>TASTING ACTIVITY</b>	<b>MOVEMENT ACTIVITY</b>	<b>CRAFT ACTIVITY</b>	<b>MOVEMENT ACTIVITY</b>
<p>Cantaloupe—A Look Inside</p> <p>15 minutes</p> 	<p>Cantaloupe Shapes</p> <p>10-15 minutes</p>	<p>Old MacDonald Had a Farm, Cantaloupe Style</p> <p>10 minutes</p>	<p>Decorated Garden Bags</p> <p>15 minutes</p> 	<p>Cantaloupe Curl Ups</p> <p>10 minutes</p>
<b>CRAFT ACTIVITY</b>	<b>CRAFT ACTIVITY</b>	<b>TASTING ACTIVITY</b>	<b>READING ACTIVITY</b>	<b>TASTING ACTIVITY</b>
<p>Row Markers</p> <p>15 minutes</p>	<p>Seed Art</p> <p>15-20 minutes</p>	<p>Cantaloupe Fruit Salad</p> <p>15 minutes</p>	 <p>10-20 minutes</p>	<p>Meet Cantaloupe's Fruit Friends</p> <p>10-15 minutes</p> 
	<b>MOVEMENT ACTIVITY</b>			
	<p>"Cantaloupe Says"</p> <p>10 minutes</p> 			

# Grow it, Try it, Like it!

## GROWING ACTIVITY

### Cantaloupes Start as Seeds

The children see and touch cantaloupe seeds and learn how far apart to plant seeds.

#### OBJECTIVES

The children will be able to:

- Describe how a cantaloupe grows from a seed into a plant that produces cantaloupe; and
- Describe the resources needed to grow cantaloupe.

#### MATERIALS NEEDED

- Packet of cantaloupe seeds
- Yardstick or three 12-inch rulers
- Cantaloupe *Grow It! Cards*

#### INSTRUCTIONS

- Tell the children they will learn how cantaloupe grows. Show the children the cantaloupe seeds and ask them what shape the seeds are. Tell the children that the seeds are just like the ones from the inside of the cantaloupe. People buy packets of seeds to grow cantaloupe in gardens. Pass the seeds around. Let the children touch and count the seeds.
- Explain that cantaloupe seeds are planted in the soil at least 3 feet apart. Cantaloupe plants need room to spread out when they grow. Have three children hold the rulers between them to show the distance. Or have a child who is at least 36 inches tall lie down between two standing children to show the distance. Have the children return to the group.
- Explain that the cantaloupe seeds are planted in mounds of soil in the spring. The sun and water help them grow into long vines above the ground. Yellow flowers bloom on the vines. Where the flowers bloom on the vine, cantaloupe fruits will grow during the summer. Remember—to make fruit, flowers must bloom first.
- Explain that the cantaloupe is picked when the skin becomes tan in color. Use the *Grow It! Cards* to show a ripe cantaloupe in a field.
- Explain that ripe cantaloupes are picked and taken to a grocery store or a farmers market. That is where people buy cantaloupes and take them home to eat. Use the *Grow It! Cards* to show cantaloupe on a plate.



#### ACTIVITY LENGTH

10 minutes

#### WHAT TO DO AHEAD OF TIME

- Organize materials.

#### WORDS TO GROW

Seeds	Soil
Fruit	Sun
Water	Flowers
Space	Plants

# Growing Minds

Growing Minds is a program developed by the Appalachian Sustainable Agriculture Project that provides opportunities for children to learn about local produce and farms in their community. While this program is North Carolina-based, the learning objectives are easily applicable to Indiana standards. Growing Minds has created lessons designed for specific months of the year for preschool aged children that incorporate paired activities and books to enhance their learning experience. See below a sample activity overview involving apples, in which children taste different varieties of local apples paired with a specific book. More detailed activity plans can be found in the PDF attached to the lesson overview.

## Apple Tasting – Preschool

Children use their sense to explore apples and gain confidence in trying new fr

### Need to Prepare

Supplies:

- 2-3 varieties of local apples
- Paper plates
- Paper apple trees labeled with the names of the apple varieties
- Paper Apples

Cut out and create the paper trees and paper apples.

### Books to Read

- [Ana Cultiva Manzanas / Apple Farmer Annie](#)

### Downloads

- [Apple Tasting – Preschool \(quick view as .pdf\)](#)

## Harvest for Healthy Kids

Harvest for Healthy Kids was developed and tested by teachers and childcare providers to help children develop healthy eating habits. This program is a partnership between Mt . Hood Community College Head Start and Early Start and the School of Community Health at Portland State University. The activities promote science, math, and literacy by connecting children with different fruits, vegetables, and other locally grown fresh foods. Each activity kit focuses on a particular food and includes hands-on activities, colorful picture cards of fruits and vegetables for learning purposes, newsletters for families, background information for adults, and recipes and books. Fruits and vegetables included are beets, asparagus, winter squash, berries, carrots and more. The program requires a free registration before you can download the activity kits. Below is an example of a sensory exploration lesson to guide children for exploring asparagus. More information can be found in the resources section later in this chapter.

## Got Veggies?

Got Veggies: ECE edition is a garden-based, nutrition education program that builds on the lessons and activities from the original Got Veggies? program developed in 2009 and is specifically developed for early education settings. The program is modeled for the Wisconsin Early Learning Standards but offers concepts and tools developmentally appropriate for children aged five and under and can be applied to Indiana standards. This program encompasses four major themes:

- Facilitating hands-on learning and play in nutrition, food, and agriculture
- Buying, preparing, and serving local foods at meal and snack times
- Building on-site edible gardens or container gardens
- Engaging families, caregivers and local community members in health and wellness

Below , see an example of a Got Veggies? activity. As stated above, these activities are designed for Wisconsin Early Learning Standards, but can easily be applicable to Indiana Early Learning Standards. For Indiana Early Learning Standards, please see the link [here](#).

# Harvest for Healthy Kids



## SENSORY EXPLORATION

### Bendable, Snap-Able Asparagus Spears

#### OBJECTIVES:

1. Children describe the feel, smell, taste, and color of asparagus.
2. Child compare the look and texture of asparagus buds (tips) and asparagus stems.
3. Children learn how to use their hands to snap off the woody ends of asparagus spears.

#### WHAT YOU MIGHT NEED:

One or two bunches of asparagus, with woody ends attached  
Chart paper  
Markers

#### WHAT YOU MIGHT DO:

- Ask children to explore the asparagus with their hands, eyes, and noses. Invite children to gently bend asparagus spears to test their flexibility.
  - Ask children to describe the feel, smell, taste, and color of asparagus.
  - Record children's responses on a chart paper to hang in the classroom.
- Ask children to compare the look and texture of asparagus buds (tips) and asparagus stems (smooth). Remove some of the buds from the stems so that children can explore the pieces separately.
  - How does the asparagus bud feel (bumpy?)? What about the asparagus stem (Smooth? Soft?)?
  - Ask children to compare the texture and color of the very bottom of the asparagus stem (the woody end) with the rest of the stem.
  - Record children's responses on the asparagus chart paper (see above).
- Teach children how to snap off the woody ends of asparagus spears. Hold the tip with one hand and the end with the other. Bend the asparagus spear until it snaps naturally above the woody end. Invite children to try!
- Offer small tastes of raw asparagus and, if desired, cooked asparagus. Remind children that they will need to wash their hands after tasting and before continuing to explore the vegetables.
- Give children a hand stamp for exploring a new vegetable!



### ASPARAGUS COLORS

Asparagus also comes in white and purple, though sometimes these colors can be difficult to find. Check your local farmers market or grocery store. If you can find them, bring in different colors of asparagus for children to explore. If you find purple asparagus, make sure to cook some so that children can watch the color change from purple to green!



# Got Veggies?



## Wiggle Worm

**Little Wiggle Worm (wiggle a stuffed animal, playdough, or pipe cleaner worm)**

**Went crawling underground. (wiggle worm under hand)**

**Down came the rain (wiggle fingers downward)**

**And mud was all around. (open arms wide)**

**The rain filled his tunnels (open hand; move fingers together)**

**And pushed out Wiggle Worm. (push worm through other hand)**

**And soon the puddles on the ground (make an O shape for a puddle with your hand)**

**Were the only place to squirm! (wiggle worm into the puddle)**

Source: [preschool-plan-it.com](http://preschool-plan-it.com)

### Sensory Activity

For this activity, earthworms from the garden can be used (kept temporarily in a container of moist soil), or you can start a composting worm bin using purchased red wiggler worms (earthworms from the garden don't work well for composting). Directions for a worm bin can be found in the original Got Veggies? on page 44 (<https://www.dhs.wisconsin.gov/publications/p0/p00228.pdf>) For a small group of children, ask them to all stand around the container or bin so they can see in it at the same time. For a large group, it may be helpful to split into two groups where one is circling the bin and the other group is observing worms that have been separated out. Children may feel a variety of emotions upon seeing and handling the worms. Help them to name their emotions and gently encourage participating in what may be a new experience for them. While holding the worms, invite children to describe how the worms feel and look in their hands.

Here are two worm handling tips:

1. Keep your hands open, so that the worms can breathe;
2. If they start to wiggle a lot, they are probably too warm or dry and they need to go back into the cool, moist bin.

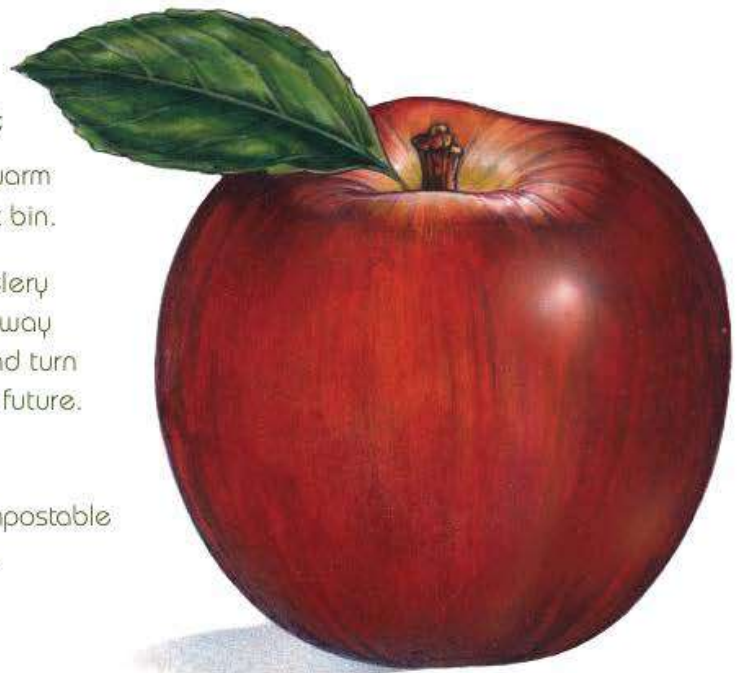
Have children help you add the extra snack parts like celery leaves or apple cores into the worm bin. This is a great way to reinforce the idea that worms will eat our leftovers and turn them into nutrients, which will help grow our food in the future.

### Snack or Meal Time

Serve apples, celery or another fruit or vegetable with compostable waste. Save the apple cores to include in the worm bin.

### Songs and Fingerplays

Sing the song above to the tune of, "Itsy, Bitsy Spider."





## Harvest of the Month

The Farm to Preschool program at Occidental College is designed for preschool-age children for any variety of child care settings. Each month focuses on one fruit or vegetable such as peppers, tomatoes, kiwi, and grapefruit, and the program includes four weeks of lesson plans for the particular food highlighted that month. Lesson plans include taste tests, recipes, discovery and exploratory activities, art and fingerplay songs, and more. See an example of an activity involving kiwi below, with information on learning standards, accompanying books, learning objectives, and directions for performing the activity.

## Color Me Healthy

Color Me Healthy is a program created by North Carolina Cooperative Extension and the North Carolina Division of Public Health designed for preschool and kindergarten children to encourage physical activity and healthy eating. This curriculum includes picture cards, classroom posters, music CDs to engage children through music, recipes, parent newsletters, and a teacher's guide with activities. This program is designed to stimulate children's senses through exploration, music, and color. See a sample recipe that you may incorporate into a classroom meal plan or activity below.



# Harvest of the Month

## EASY FRUIT SALAD

Makes 10 servings  
Serving Size: 1/2 cup



### Ingredients

- 1 (20-ounce) can pineapple chunks in juice, drained
- 1 (15-ounce) can (2 cups) fruit cocktail in juice, drained
- 2 small bananas, sliced
- 1 (8-ounce) low-fat yogurt (try vanilla or lemon)

### Directions

1. Drain pineapple chunks and fruit cocktail.
2. Wash, peel and slice bananas.
3. Mix fruits and yogurt together.
4. Cover and chill until ready to serve.

For variation use the following fresh fruits, instead of canned:

- 1 cup grapes, seedless, halved
- 2 cups cantaloupe, cut into bite size pieces
- 1 cup strawberries, quartered
- 1 cup apple, cut into bite size pieces

**Note:** If the pineapple and fruit cocktail are left out, add a little lemon juice to bananas and apples to prevent browning.

### Nutrition information Per Serving

100 calories		Total Carbohydrate	23 g
Total Fat	0 g	Dietary Fiber	2 g
Saturated Fat	0 g	Sodium	15 mg
Protein	2 g		

 Good source of Vitamin C



**NC STATE**  
EXTENSION

**Community & Clinical**  
**CONNECTIONS**  
**for Prevention & Health**  
Branch  
NORTH CAROLINA  
DIVISION OF PUBLIC HEALTH

# Color Me Healthy

## Kiwi

### Week 1: Seed Sort

#### OBJECTIVES

- ★ Students will name fruits that have seeds.
- ★ Students will name fruits that have seeds on the inside and fruits that have seeds on the outside.
- ★ Students will explain how plants grow from seeds and how seeds travel.
- ★ Students will compare seeds and sort them according to size.

#### MATERIALS

- A Fruit is a Suitcase for Seeds* by Jean Richards
- Chart paper and markers
- Glue and paper
- Seeds and a sorting mat for each child or group (students can collect seeds and bring them from home or use a bag of bird seed)

#### LEARNING STANDARDS

##### **Head Start Learning Domains**

- Creative Arts Expression
- Language Development
- Literacy Knowledge and Skills
- Mathematics Knowledge and Skills

##### **Key Developmental Indicators**

- Language, Literacy and Communication
- Mathematics (Seriation, Number and Space)
- The Arts (Visual, Dramatic, and Music)

##### **DRDP-R**

- Language and Literacy Development, LLD1, LLD3, LLD4, LLD6, LLD7, LLD9
- English Language Development, ELD 1, ELD2, ELD3, ELD4
- Cognitive Development, COG1, COG3,
- Math Development, MATH3
- Physical Development, PD3

#### DIRECTIONS WITH CHILDREN

1. Read *A Fruit is a Suitcase for Seeds*. Discuss the different types of fruits, seeds and pits. Have students describe what the seeds and pits are for. Discuss how a plant grows from a seed and how it travels.
2. Have students brainstorm foods that have seeds. Explain that the list contains foods that are fruits and maybe some foods considered vegetables like cucumbers or tomatoes.
3. Ask the students to think of fruits that have seeds on the outside and make a list. Do the same for fruits that have seeds on the inside. Have them identify which seeds we eat and which ones we don't. Reassure students that the seeds they eat will not grow in their tummy (see the last page of the book).
4. Review with students how the different fruits grow (on a vine, on the ground, on a tree) and why fruit is a healthy food.
5. Introduce kiwi as this month's *Harvest of the Month* fruit and let the class know that a kiwi fruit grows on a vine. Refer to the book (page 5), the brown skin is its suitcase and the black dots its seeds.
6. Give each child some seeds to sort and encourage them to sort by size or color. Students can use tweezers, tongs or chopsticks to help with sorting to encourage fine motor development.
7. After students have completed the sorting of the seeds, have them make a seed collage individually, in small groups or as a class.





## From Seed to Plate

This curriculum is developed by the Farm to Preschool program at Occidental College. This program provides a year's worth of lessons, with each month focusing on a topic related to plant growth and development such as photosynthesis, seeds, roots, and insects. Each month focuses on 1-2 fruits and vegetables and includes a weekly lesson plan promoting Farm to ECE concepts while providing relevant books, materials, and instructions to accompany learning activities. Each month also includes recipes and taste test plans for the fruits and vegetables being highlighted. See an example of a sample lesson and accompanying food experience below.

# From Seed to Plate

## January – Exploring Leaves and Photosynthesis

### Week 2: Focus on Plant Parts - Leaves

#### **Materials:**

- *Leaves* by Vijaya Khisty-Bodach
- Crayons or colored pencils

#### **Objectives:**

- Learn why plants have leaves- to make food and to breathe
- Photosynthesis basics- leaves turn sunlight into food for plant
- Learn which plant leaves we eat

#### **Preparation:**

Make copies of the attached worksheet, one for each child.

#### **Directions:**

1. Ask children to name the plant parts (leaves, roots, stems, flowers, and fruit). Tell them - you are going to learn more about leaves.
2. Read *Leaves* by Vijaya Khisty-Bodach
3. Ask- **What are two reasons why plants need leaves?** To make food, and breathe. Leaves are like our mouth- it's how we eat & breathe. Have children practice breathing through their mouths, all breathe in and out at the same time. Have kids pretend to eat, taking imaginary bites & chewing. Alternate between breathing & eating to emphasize 1 part (the mouth) can do 2 jobs (eating and breathing).
4. Plants breathe air too, but a different part of the air. Plants breathe out oxygen. Oxygen is what people and animals breathe in every time they take a breath. Without plants, we would run out of oxygen to breathe. Plants breathe in carbon dioxide. We breathe out carbon dioxide.
5. Ask- **what do plants need to grow?** (soil, water, air, loving care, and sunlight) Plants use their leaves to turn sunlight into food that gives it energy to grow.
6. Ask- **what room do we make meals in our house or at school?** That's, right, the kitchen. The leaves are like the kitchen of a plant. It is where the food is made!
7. For older children: When we cook at home or school, we use a recipe. A recipe is all the different parts needed to make food. Sunlight isn't the only ingredient in the recipe for plant food- plants also need water from soil, & air around them, for the leaves to make their recipe.
8. All plants make food in leaves. Some leaves make good food for people too! Give a copy of the worksheet to each child. Have them draw circles around the leafy vegetables They can color the whole page.
9. **Extension- Matching Game:** Print out two copies of the attached worksheet, laminate if possible, cut out each veggie square and set on table for children to match the picture or flip over to play memory.
10. **Garden Extension:** Tell children that only healthy green leaves turn sunlight into food. Leaves that are brown, yellow, or shriveled up aren't very good at making the plant food! Look for leaves around the garden you can trim to make the plants healthier. Leaves that are brown, yellow, or shriveled can be cut or pinched off and put in the compost, worm bin, or trash. When they are finished, say "we helped the plants, now they will be better at making food for themselves!" and give yourself a round of applause.

#### **DRDP-2015 Measures**

##### Approaches to

Learning-Self  
Regulation; ATL-  
REG1, ATL-REG7

Social and Emotional  
Development;  
SED3, SED4

Language and Literacy  
Development;  
LLD1, LLD2, LLD3,  
LLD4, LLD6, LLD8,  
LLD9

English Language  
Development;  
ELD1, ELD2, ELD3,  
ELD4

Cognition-Math and  
Science; COG2,  
COG4, COG9,  
COG10, COG11

Physical Development-  
Health; PD-  
HLTH10

History-Social Science;  
HSS3, HSS5

# From Seed to Plate

## Food Experience: Raw Broccoli and Cauliflower

Serves 16 • Prep time: 10 minutes • Cook time: None

### Nutrition Facts

Serving Size

Servings per Recipe

Amount Per Serving

Calories

Calories from Fat

% Daily Value

Total Fat

%

Saturated Fat

%

Trans Fat

Cholesterol

%

Sodium

%

Total Carbohydrate

%

Dietary Fiber

%

Sugars

Protein

Vitamin A %

• Vitamin C %

Calcium %

• Iron %

\*Percent Daily Values are based on a 2,000 calorie diet. Your daily values may be higher or lower depending on your calorie needs.

### Ingredients:

- 5 carrots, peeled and sliced in quarters, lengthwise
- 2 cups of broccoli florets
- 2 cups of cauliflower florets
- 1 cup of hummus or low-fat ranch dressing (1/2 TBSP per student)

### Directions:

1. Wash all the vegetables.
2. Slice the broccoli and cauliflower into bite-sizes florets.
3. Give each child 2-3 florets of broccoli and 2-3 florets of cauliflower on a plate.
4. Spoon the hummus or ranch dressing onto the plate.

Makes 20 Taste Tests

### MATERIALS

### CHEF'S NOTES

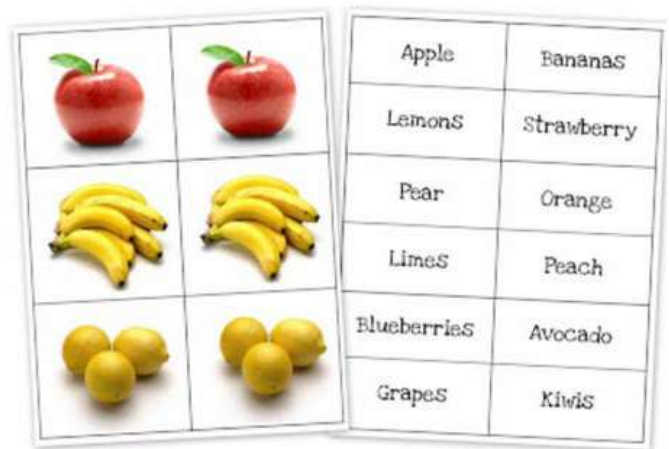
- 
- 

Adapted from the *Network for a Healthy California*

# Farm to ECE Learning Activities

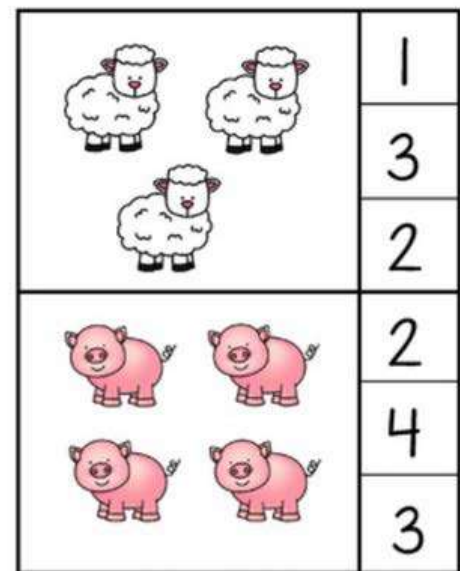
Below are some selected Farm to ECE learning activities that can be easily incorporated into a classroom for free or at very minimal cost.

**Fruit and Vegetable Matching:** Fruit and vegetable cards are designed to help children practice matching and identifying fruits and vegetables. You can print out the cards and cut and laminate them to make them more sturdy for young hands. Children can practice matching the fruits and vegetables to similar objects, grouping them by color, and sounding out the words that match the picture card. Find examples of cards to print out [here!](#)



**Farm Count and Clip:** These cards are a fun way to incorporate counting into farm themes. Simply print out the cards, cut, and laminate them for durability. Ask your children to count the number of farm animals on each card and then clip the clothespin to the correct number. This activity may be perfect at an independent math station, facilitated through a small group, or for at-home learning. See some examples below:

- [Farm Animal Count and Clip Cards \(1-12\)](#)
- [Free Farm Count and Clip Printable Cards](#)



**Seeds Display:** This can be used to introduce children to different types of plants and familiarize them with the growth cycle of a plant. Find examples of seed displays [here!](#)



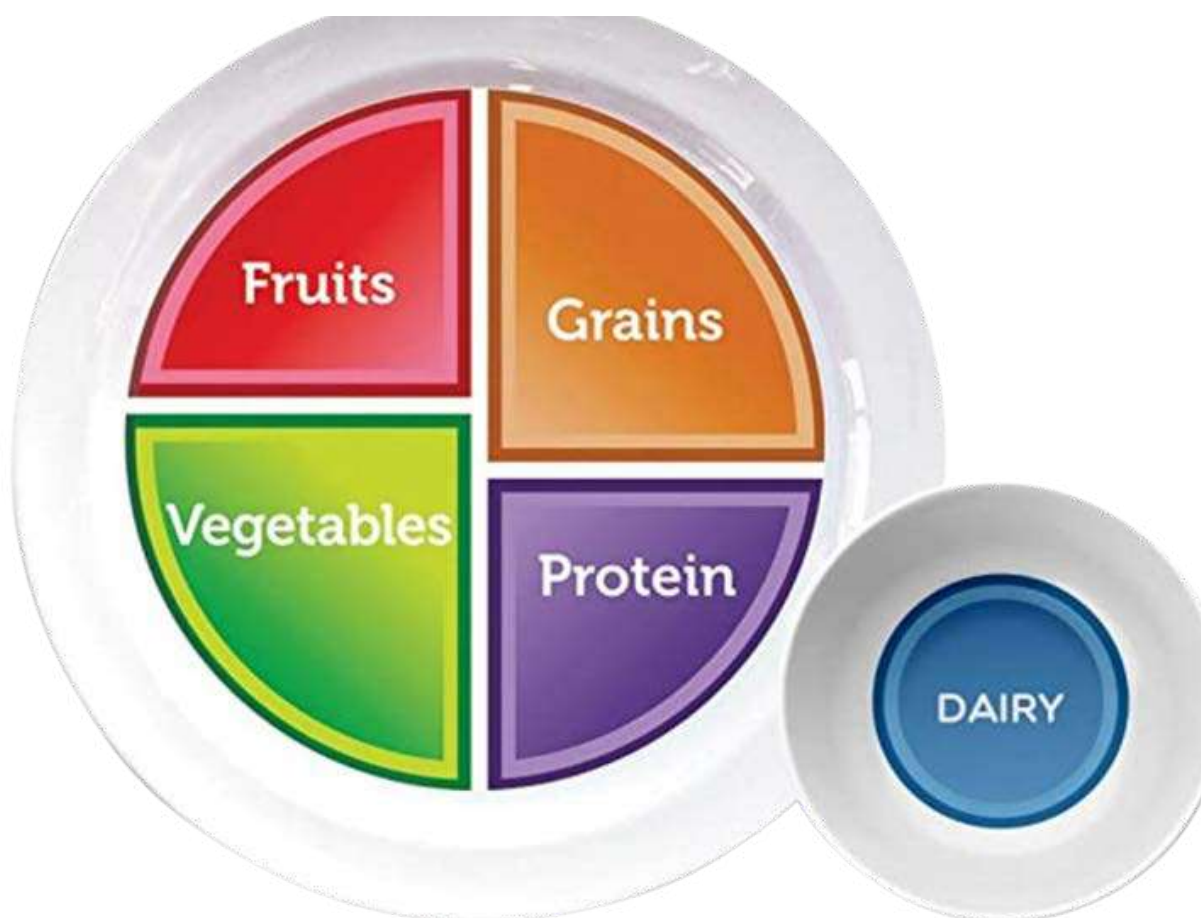
**Grocery Store Play:** Dramatic play offers many opportunities for young children to learn through play. Children can learn to develop their imaginations and improve creativity, expand their vocabularies by engaging in conversation and listening, practice negotiating and sharing, and expand their attention spans while they play activities that last longer periods of time. Play also encourages children to develop an awareness of their own traits and characteristics, likes and dislikes, and differences from other people while interacting with peers and cooperating in groups. To incorporate additional Farm to ECE elements into grocery store play, consider:

- Providing clothing or props that allow children to play as farmers, gardeners, chefs, bakers, or grocers
- Including plastic, wooden, or recycled food items that reflect local food choices and fresh produce options
- Incorporating the cultures of your children and the local community. Are there any culturally appropriate food items that can be added to the play area?
- Look for items at Goodwill or Salvation Army to incorporate into your center


See some examples of grocery store play [here](#).

**Paper MyPlate:** MyPlate is the new USDA food symbol that replaces the food guide pyramid and demonstrates recommended portion sizes for fruits, vegetables, grains, dairy and protein. Paper MyPlate can be used to teach children about portion sizes and healthy eating and can easily be incorporated into mealtimes. MyPlate can be introduced by passing out the coloring sheets and coloring them in together as a class, while showing children different pictures of food to help them understand what foods belong in each group. MyPlate labels grains as orange, vegetables as green, fruit as red, milk and dairy as blue, and protein as purple - have the children color in their sections with the matching colors. Explain that each section is a different size, telling you how much you should eat it every day.

You can find blank coloring sheets for MyPlate [here](#) and labeled coloring sheets for MyPlate [here](#).







**Corn Scooping Sensory Bin:** This activity promotes fine motor skill development and is a great way to supplement learning activities related to planting seeds or farm crops.

Materials needed:

- At least one cup of dried corn kernels
- Small container to hold kernels
- Smaller containers for children to scoop kernels into
- Small scoops

It may be beneficial to present all materials on a large tray or blanket to keep spilled kernels contained and prevent them from falling to the floor. A blanket or tray acts as a visual barrier for children - telling them to keep the kernels to the confined space will help prevent mess. Model the activity to your children: show them how to properly scoop kernels, pour them into another container, and pick up scattered or fallen kernels. Remember to supervise your children to ensure no kernels are placed in their mouths.

**Garden Songs for Kids:** Sing songs related to food, farming, and agriculture to reinforce lessons and provide children the opportunity to explore Farm to ECE concepts in a unique way. Find some examples of songs below!

**Parts of a Plant song:**

[https://www.youtube.com/watch?v=T10p473llWo&feature=youtu.be&ab\\_channel=JackHartmannKidsMusicChannel](https://www.youtube.com/watch?v=T10p473llWo&feature=youtu.be&ab_channel=JackHartmannKidsMusicChannel)

**Farmer Plants the Seeds song:**

[https://www.youtube.com/watch?v=cRhGOdqWllo&ab\\_channel=TheKiboomers-KidsMusicChannel](https://www.youtube.com/watch?v=cRhGOdqWllo&ab_channel=TheKiboomers-KidsMusicChannel)

**There's Something in My Garden song:**

[https://www.youtube.com/watch?v=88reJzTyWv4&ab\\_channel=TheKiboomers-KidsMusicChannel](https://www.youtube.com/watch?v=88reJzTyWv4&ab_channel=TheKiboomers-KidsMusicChannel)

**Cocomelon Gardening song:**

[https://www.youtube.com/watch?v=hR0V37t8sfc&ab\\_channel=Cocomelon-NurseryRhymes](https://www.youtube.com/watch?v=hR0V37t8sfc&ab_channel=Cocomelon-NurseryRhymes)

**Vegetable song:**

[https://www.youtube.com/watch?v=RE5tvaveVak&ab\\_channel=TheSingingWalrus-EnglishSongsForKids](https://www.youtube.com/watch?v=RE5tvaveVak&ab_channel=TheSingingWalrus-EnglishSongsForKids)

**I'm a Fruit song:**

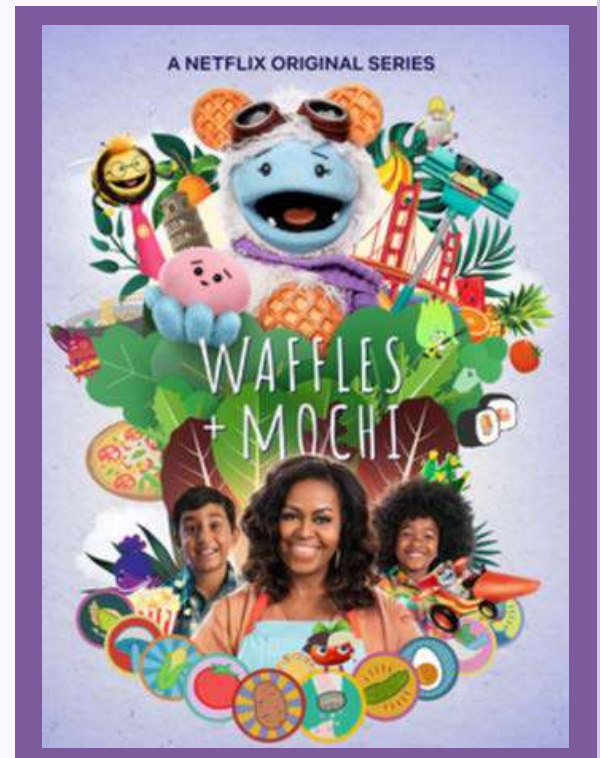
[https://www.youtube.com/watch?v=92rqdS6WyVI&ab\\_channel=NetflixJr.](https://www.youtube.com/watch?v=92rqdS6WyVI&ab_channel=NetflixJr.)

**Waffles and Mochi episode:**

<https://www.wafflesandmochi.org/>

See some more examples of fun songs to sing and enjoy with your children below:

[Preschool Education: Music and Garden Songs](#)  
[Gardening Songs Theme Unit](#)





**Taste Test Recipes:** The taste test activity introduces children to foods that they may have not tried before. The benefits of taste tests include:

- Reinforcing positive messaging surrounding trying new foods
- Encouraging children to eat and enjoy healthier food options served at home and at childcare centers
- Helping children develop a preference for fresh fruits and vegetables
- Engaging children in hands-on activities
- Introducing children to new flavors, colors, and textures to less familiar foods
- Cultivate enjoyment and excitement around trying fresh and healthy foods

Taste tests can be conducted in many ways. Ideally, a taste test occurs several times throughout the year to help strengthen healthy eating habits and encourage children to try new foods. This may be conducted as an independent activity, at snack or meal time, or in conjunction with another event held at a childcare center. Children may try a singular food item or a few new items, and the taste test can be paired with a book or song to reinforce learning concepts. Make sure to communicate in advance with parents and caregivers that you will be hosting a taste test so you can be aware of any possible allergies.

### **Tips for a Successful Taste Test:**

- Offer small tastes of food at first, but be prepared to offer more if a child wants to taste again. A child can be overwhelmed by a large portion, and portions need to be small enough for small mouths.
- Offer new foods first to children willing to try new things. Watching a peer eat a food can help the most reluctant child taste a new food
- Model to children how to politely decline tasting a food or remove food using a napkin from the mouth. Children will be more likely to try a food if they know they can appropriately remove it.

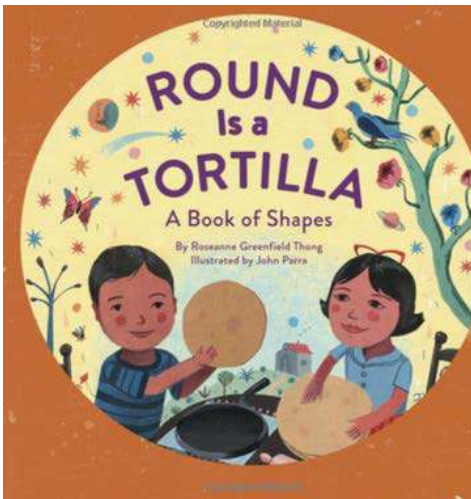
### **Taste Test Resources:**

- [Taste Test Guide - South Carolina Farm to School](#)
- [Conducting Taste-Testing Activities in Schools: A Guide for Teachers and Administrators](#)
- [Taste Test Toolkit: A Guide to Tasting Success](#)
- [Home Grown Taste Test Guide](#)
- [Apple Taste Test for Young Children](#)

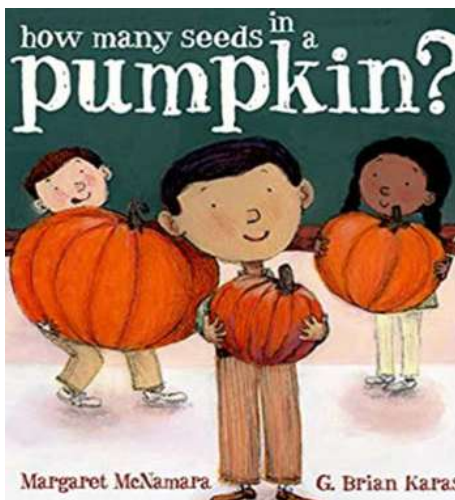


**Book Resources:** Books are an incredible tool to supplement hands-on learning and explorative activities. See some examples of teacher-recommended books below. Lists of more Farm to ECE books can be found by following the links provided.

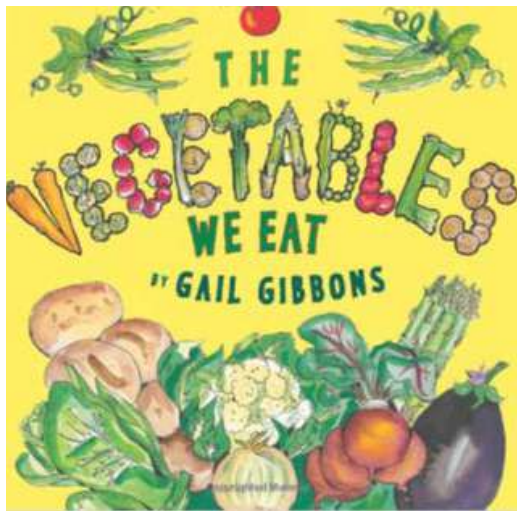
- [The Food Trust's Multicultural Collection of Farm to ECE Books](#)
- [Harvest of Books](#)
- [Go NAPSACC Farm to ECE Book List](#)
- [Gardening and Cooking Songs, Books, and Tips for Families](#)
- [Growing Minds - Children's Literature Archive](#)
- [Garden-themed Books through How's it Growing](#)
- [10 Amazing Books That Celebrate Farm Life and the Fall Harvest](#)



In this lively picture book, children discover shapes all around them: rectangles are ice-cream carts and stone metates, while triangles are slices of watermelon and quesadillas. Many of the featured objects are Latino in origin, and all are universal in appeal. With rich illustrations, a fun-to-read rhyming text, and an informative glossary, this playful concept book will reinforce the shapes found in every child's day! [Link here.](#)

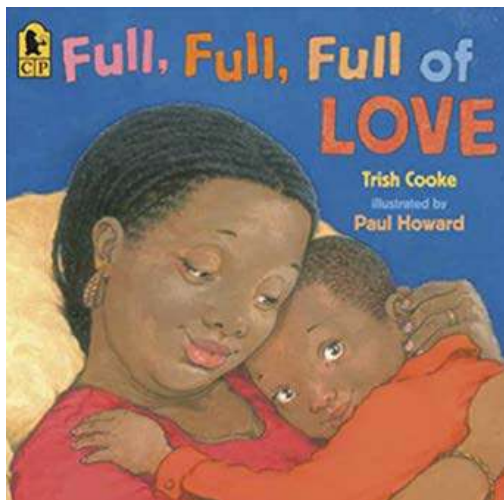


This book makes a wonderful read-aloud companion to any math or science curriculum, and it's a fun way to reinforce topics like skip counting and estimation in a fun pumpkin-themed classroom experiment! [Link here.](#)

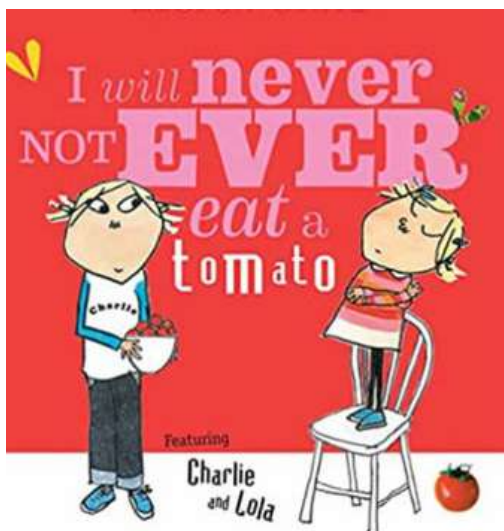


Peppers, beans, corn, and peas! Nonfiction superstar Gail Gibbons lays out the basics of veggies with colorful watercolors and straightforward text. Learn how they grow, how they get to stores, and how many kinds there are—and learn some weird trivia, too!

Diagrams, cross sections, and illustrations get kids up close and personal with glossy red peppers, plump orange pumpkins, delectable little peas, and dozens of other vegetables in this essential primer on the subject. Link [here](#).



For the youngest member of an exuberant extended family, Sunday dinner at Grannie's can be full indeed – full of hugs and kisses, full of tasty dishes, full to the brim with happy faces, and full, full, full of love. With a special focus on the bond between little Jay Jay and his grannie, Trish Cooke introduces us to a gregarious family we are sure to want more, more, more of. Link [here](#).



Lola is a fussy eater. A very fussy eater. She won't eat her carrots (until her brother Charlie reveals that they're orange twiglets from Jupiter). She won't eat her mashed potatoes (until Charlie explains that they're cloud fluff from the pointiest peak of Mount Fuji). There are many things Lola won't eat, including – and especially – tomatoes. Or will she? Two endearing siblings star in a witty story about the triumph of imagination over proclivity. Link [here](#).



## Racial Equity Initiatives

Farm to ECE presents an excellent opportunity to create lessons with an equity lens. Racial inequities exist within food and education systems that prevent communities of color from achieving equal access to education and healthy and nutritious foods. See links below for ideas on how to incorporate racial equity activities and dialogue in the classroom and suggestions for staff and colleagues to create a learning environment that is more inclusive and reflective of cultural differences.

### Resources:

- [Racial Equity Resources](#)
- [Equity, Inclusion & Anti-Bias Resources](#)
- [Talking to Young Children about Racial Injustice](#)
- [National Farm to School Staff Suggestions for Equity Resources](#)
- [21-Day Racial Equity Habit Building Challenge](#)
- [Racial and Social Equity Assessment Tool for Farm to School Programs and Policy](#)

## Success Story

# PARKVIEW HEALTH

Kylee Bennett

Fory Wayne, Indiana

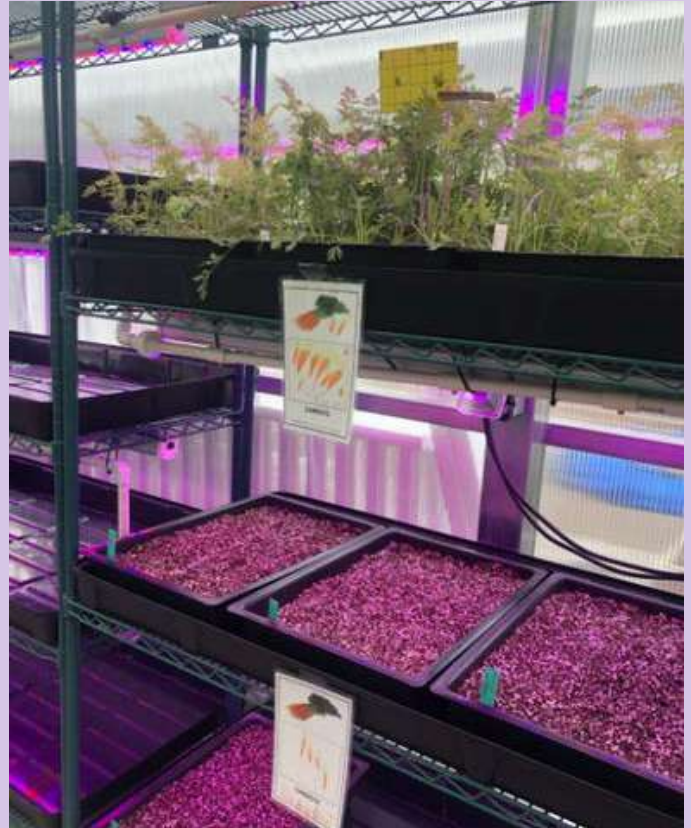
Farm to School and Farm to ECE are gaining momentum across the nation, working to place locally grown foods on the plates and in the mouths of children. In addition to local procurement, schools and childcare sites have a unique opportunity to connect the children with educational experiences on where their food comes from and the farmers who grow their food. As a result of this partnership between Parkview's Greenhouse and Learning Kitchen, Parkview's Youth Well-being Team, and local child care organizations, children ages 3-5 will be exposed to many different aspects of growing food and incorporating produce as part of a healthy diet. The children will begin their food adventure with a virtual tour of the Greenhouse and have time to talk with the Greenhouse Farmer. Then the children will be involved in six hands-on lessons taught by the Youth Well-being Team. The children will be taught where their food comes from and why farms, gardens, and greenhouses are so important. The following weeks, the children will engage in interactive discussions on the different parts of a plant, as well as the importance of seeds for growing the plants we eat and their place in a healthy diet. After understanding where our food comes from and the importance of plants, the children will explore why eating plants is so important for their overall health. The focus will be having a colorful plate. After each learning experience, the children will be able to engage in a hands-on activity or tasting to reinforce what was previously discussed. The goal of this program is to help the children gain a deeper understanding and appreciation for their local food producers, as well as choose to consume more fruits and vegetables throughout their day.





Success Story

# PARKVIEW HEALTH



## Success Story

# CHARTWELLS

Holly Catron

Montgomery County, Indiana



The obesity rate in Montgomery County is 29% as compared to 26% for top performers. There is a high rate of poverty in this community with the percentage of school-age students who qualify for free or reduced lunch ranging from 55% to 72%. The community also has an 11.8% food insecurity rate and a 17.7% child food insecurity rate. This can be compared to 13.7% in Indiana as a whole.

Chartwells is the food service provider for Crawfordsville schools and the dietitian has experience implementing Farm to School in another school system. We have started to implement F2S here in Crawfordsville through celebration events, school garden to cafeteria, herb gardens in the classroom, and our 2019 local food summit.

Partnering with Chartwells leveraging the USDA Summer Food Service Program (SFSP), Sustainable Initiatives, the local Master Gardeners, and our new Farm to School coalition, we offered a 2019 summer Lunch and Learn. The event was held on four Wednesdays in June from 10-11:30.

The event took place in a local community garden with free lunch provided to all kids ages 3-18. Adults could purchase a lunch for a nominal fee. The meals were prepared and delivered by Chartwells.

# CHARTWELLS

Wanting to include preschoolers, we personally invited our partners from the Wellness Coalition including WIC, Head Start, and the local Boys & Girls Club. The word was spread via flyers to partners and parents, and through social media.

At the event, hands-on garden and nutrition education was provided, with plenty of taste-testing opportunities. Head Start attended two of the four sessions, transporting 10+ students by bus. Other young children from the community attended with their parents. The kids interacted with local Master Gardeners and ANR Educator to plant potatoes, transplant peppers, and participate in other hands-on gardening opportunities. They received a tour of the garden and discussed and taste-tested fresh vegetables and berries along with their lunch. We also read a gardening storybook to them each week to promote literacy. We had planned to do this again in 2020, but the pandemic hit. We will look forward to 2021.



# Chapter 1 Resources



## Curriculum Resources:

- [Grow It, Try It, Like It!](#)
- [Growing Minds Organization](#)
- [Growing Minds Preschool Lesson Plans](#)
- [Growing Minds Lesson Plans for any age](#)
- [Harvest for Healthy Kids](#)
- [Got Veggies? Farm to ECE Edition](#)
- [Got Veggies?](#)
- [Harvest of the Month](#)
- [Color Me Healthy](#)
- [From Seed to Plate: Farm to Preschool Curriculum Guide](#)

## Nutrition Education and Activity Resources:

- [Farm to Early Care and Education Activities](#)
- [Nemours KidsHealth in the Classroom](#)
- [Wake County Farm to ECE Toolkit](#)
- [From Our Farms Program](#)
- [Learning to Explore Nature](#)
- [Farm to ECE Resources for At-Home Activities](#)
- [Farm to Early Care and Education Videos](#)
- [Farm to Childcare Curriculum Package through the Institute for Agriculture and Trade Policy](#)
- [Growing up Wild: Exploring Nature with Young Children](#)
- [Michigan State University Nutrition and Agriculture Education Activities](#)
- [A Dozen Ways to be Healthy: Preschool Lesson Plans](#)
- [Discover MyPlate: Teachers Guide](#)



## CHAPTER TWO

# FARM TO ECE GARDENS

Hands-on gardening involves engaging and sensory activities that show children where food comes from. Garden activities can include exploring and maintaining herb gardens or school gardens, discussing the life cycle and roles of plants and other garden creatures, or exposing children to sustainability practices through composting.

Benefits of gardening activities include:

- Improved academic achievement
- Skills-based learning
- Increased consumption of fresh fruits and vegetable
- Positive, engaged learning environment through incorporation of real world activities
- Enhanced social development
- Promoting equity through distribution of foods to families or community members
- Generational bonding activity between parents, grandparents, and community ties
- Opportunity to showcase culturally significant foods

# Getting Started with Farm to ECE Gardens

This section utilized several resources, all highlighted below. To get started on developing a gardening program for your students and community, follow these steps:

## Step 1: Evaluate your space

It is essential to consider what space is available to you - window sills, parking lots, courtyards, rooftops, greenhouses, and yards may serve as potential gardening spaces. You may want to consider space options within your community like vacant lots, local parks, community gardens, retirement homes, community centers, or places of worship. Consider these questions as you evaluate your available space:

- Who is your garden serving? How many people will be using the garden?
- Is the site easily accessible and safe for students, parents, teachers, or other community members?
- Is there a nearby safe and dependable water source?
- Is the site exposed to sunlight and if so, for how long each day?
- Is the soil contaminated with lead or other heavy metals and safe for growth?
- How does water move through the site? You may want to visit the site after it rains to assess if the water puddles or drains away, as drainage can affect garden growth.
- Is the site secure from potential hazards such as rodents, pests, heavy traffic, or vandalism? Is it possible to use a fence to help with protection or during extended breaks?

Depending on your available space and program needs, several types of gardens may be implemented in either indoor or outdoor environments. These types of gardens include container gardens, traditional in-ground gardens, herb gardens, raised beds, windowsill gardens, and more. See the resources below assessing different garden types.

### Resources:

- [24 Different Types of Gardens for Your Yard and Home](#)
- [USDA: Start A School Garden - Here's How...](#)
- [Checklist for Starting \(and using\) a School Garden](#)



## Step 2: Set goals for your garden

Setting goals for your garden is an important step for defining your garden's vision. Some common goals may include:

- Providing hands-on learning experiences that complement lessons on the environment, plant and insect life cycles, food or related topics.
- Cultivating food for school or program meal plans
- Reducing food waste generated by your program
- Providing a peaceful, healing, therapeutic space for children, parents, and community members
- Providing fresh fruits and vegetables for children to taste or take home

See some of the links below for some examples of goals and learning objectives for a school garden.

### Resources:

- [Starting a School Garden Program: Overview](#)
- [How to Start a School Garden: Your Complete Guide](#)
- [Determining Garden Program Goals](#)

### Step 3: Assemble a gardening committee

While not essential if limited by personnel or resources, a gardening team will help promote your garden's longevity and make implementation easier to manage. A garden committee may make decisions about the appearance of the garden, and what it will be used for. Gardening committees may consist of members such as administrative staff, teaching staff, parents, community volunteers, or food service staff if the garden will support food programming. Your committee may assist with tasks such as event planning, garden maintenance such as planting and weeding, fundraising, or community and parent involvement.

### Step 4: Assess your inventory and needs

The materials and tools needed will vary depending on the size of your garden. Supplies may include some of the following items:

- Watering cans
- Hand trowels
- Round shovel
- Flat shovel
- Garden hoe
- Digging fork
- Drinking water safe hose
- Garden twine
- Gardening gloves
- Plant labels
- Wheelbarrow
- Spray nozzle

#### Resources:

- [School garden start-up tool list](#)
- [School Garden Tools and Equipment Resources List](#)



## Step 5: Design your site

With the completed site analysis and compilation of tools and resources needed, it is time to implement a landscape design. If your garden will be small (a few beds, herb gardens, or DIY classroom activities), your main concern will be considering where to place the beds or activities in your designated space within the classroom or program center or outside. For larger gardens, contact the Master Gardeners Program through Purdue University Extension or request assistance through Purdue Extension (see Getting Started Resources below) for assistance . You may want to network with other schools or programs within your district or region that have enacted successful gardens to learn tips and best practices . Hold a brainstorming session to incorporate ideas from center participants regarding design concepts and plans. You may want to involve and encourage participation from the local community in the design process such as parents, students, teachers, administrators, food service staff and local partners. Once you have an idea where to place and organize things, the last step will be to choose appropriate plants that will grow successfully and can be properly harvested and cared for. Different plants have various space, light, and temperature requirements, which need to be considered when placing plants in your garden. You may want to seek advice from books, local garden center employees, other school garden coordinators, or plant nursery workers.

### **Design Resources:**

- [Designing your School Garden](#)

### **Getting Started with Farm to ECE Gardens: Resources**

- [Master Gardeners](#)
- [Contact Purdue Extension](#)
- [Fearless Beginning Gardening at Your Program: Approaching Challenges](#)
- [Start an Early Childhood Education Garden Program](#)
- [Got Dirt?](#)
- [Ready for Spring: Garden Planning with Kids](#)
- [Farm to Preschool Garden Workshop - From Seed to Snack](#)

# Garden Varieties

## In-ground Gardens

Traditional in-ground gardens are the simplest type of garden to install if there is sufficient space and good soil quality. Many gardens that grow directly in the ground may offer significant benefits such as:

- Good moisture retention and lower water requirements than raised beds
- Ability to add covers to extend the growing season
- Use of existing soil saves money and simplifies the process of beginning a school garden
- Irrigation systems for in-ground gardens are simpler to design and install

### Resources:

- [How to Plant an In-Ground Garden \(It's Easy!\)](#)
- [Follow These 10 Essential Steps to Start Your First Garden Off Right](#)
- [Starting a New Vegetable Garden from Scratch](#)






## Herb Garden

An herb garden can be an excellent way to introduce children to different smells, tastes, and textures without consuming a lot of space. Materials list for an herb garden may include:

- One rectangular plastic container (18 x 6 x 6 would be large enough for 3 different plants). Other materials that would serve as an excellent home for an herb garden include pots, wagons, an old sandbox, or gallon milk jugs. Plants will grow in just about any container with drainage holes for excess water.
- Potting soil
- Seeds and seedlings
- Organic fertilizer





Most herbs grow well in a lot of sunlight, so make sure to choose a spot, such as a windowsill, that provides at least 6 hours of sunlight. You can also use a purchased light with fluorescent bulbs hanging over the container if this is not feasible. You can grow herbs in a plastic container purchased at a gardening store, but you can also get creative and use cooking pots, pans, jars, or other household items as long as you can create holes in the bottom for drainage. An indoor herb garden can be started anytime, but an outdoor herb garden should be planted after the danger of frost is gone (late spring or early summer). Herbs that can be grown perennially and require little maintenance include mint, rosemary, thyme, basil, oregano, dill, lavender, sage, and chives. See resources below for growing instructions, material suggestions, and more.

**Resources:**

- [17 Indoor Herb Garden Ideas](#)
- [How to Grow an Indoor Herb Garden](#)
- [Growing Herbs At Home: Making An Herb Garden In Your Yard](#)
- [Grow herbs indoors for a winter school garden](#)
- [Container Herb Garden for Young Children](#)

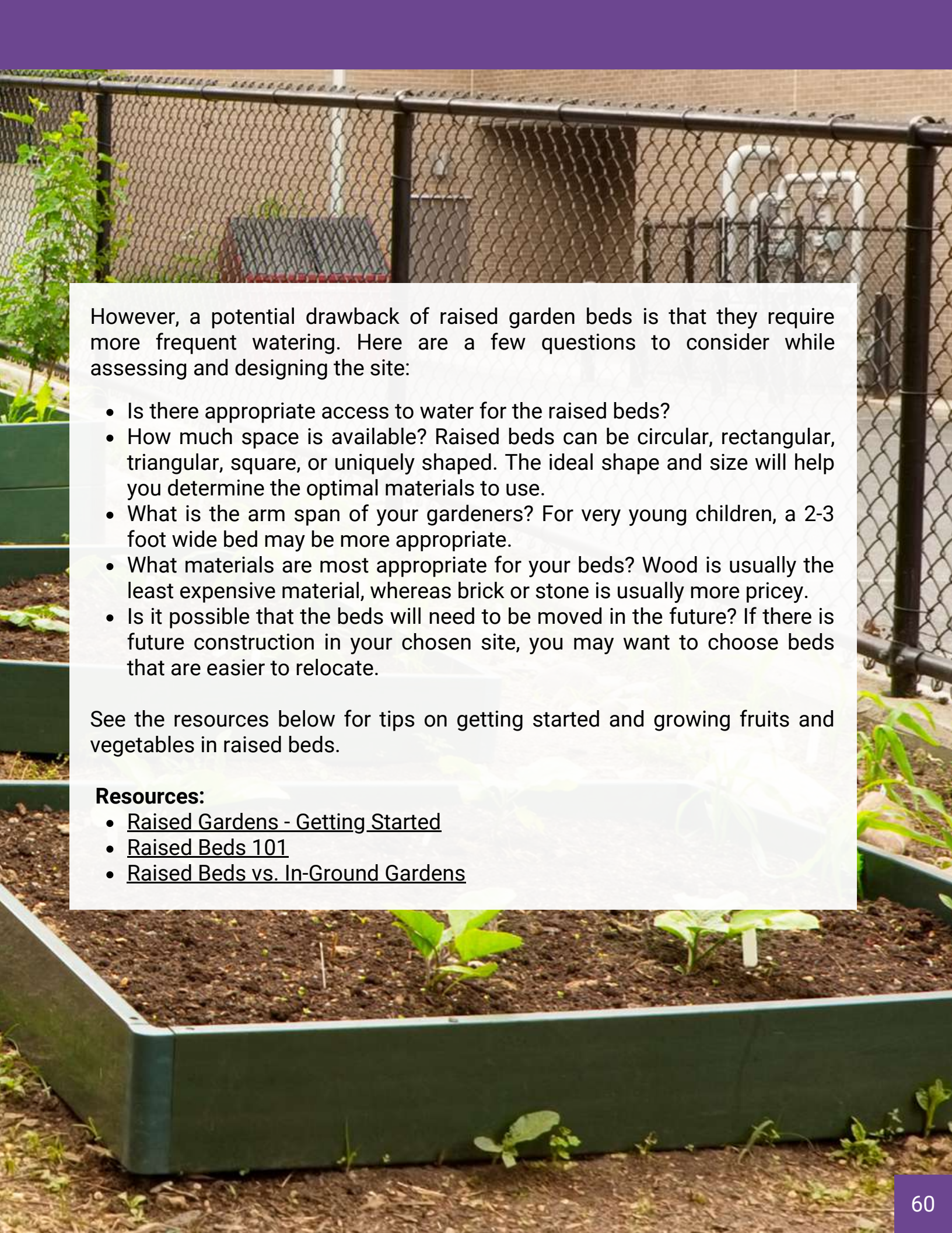


## Raised Garden Beds

Raised garden beds may be a great alternative to a traditional in-ground garden if good quality soil is limited. A raised garden bed is simply a contained bed of soil above the surrounding ground using wooden logs or another material. These gardens are commonly used in school gardens and offer numerous benefits such as:

- Highly accessible for younger children to access the center of the bed
- Can be constructed in a variety of heights, widths, and lengths
- Control over soil composition and better drainage
- Flexibility of location - can be installed on concrete and paved surfaces or directly on soil
- Easier to control weeds, plant new seeds, and amend the soil as needed
- Elevation of the raised beds help prevent soil compaction by decreasing foot traffic and standing on soil





However, a potential drawback of raised garden beds is that they require more frequent watering. Here are a few questions to consider while assessing and designing the site:

- Is there appropriate access to water for the raised beds?
- How much space is available? Raised beds can be circular, rectangular, triangular, square, or uniquely shaped. The ideal shape and size will help you determine the optimal materials to use.
- What is the arm span of your gardeners? For very young children, a 2-3 foot wide bed may be more appropriate.
- What materials are most appropriate for your beds? Wood is usually the least expensive material, whereas brick or stone is usually more pricey.
- Is it possible that the beds will need to be moved in the future? If there is future construction in your chosen site, you may want to choose beds that are easier to relocate.

See the resources below for tips on getting started and growing fruits and vegetables in raised beds.

**Resources:**

- [Raised Gardens - Getting Started](#)
- [Raised Beds 101](#)
- [Raised Beds vs. In-Ground Gardens](#)

## Tower Garden

A tower garden may be another creative solution for centers or programs with limited outdoor space. A tower garden can be as simple as stacking a few various sized planter pots in ascending size order for herb growing, or more elaborate such as creating a vertical tower capable of supporting larger plants and foods. See below for some tower garden options.



### Resources:

- [DIY Tower Garden Ideas: How To Make A Tower Garden](#)
- [30 DIY Tower Garden Ideas To Grow Plants Vertically](#)
- [28 DIY Tower Garden Ideas](#)
- [Photo source above: DIY Strawberry Tower With Reservoir! \(& 5 Lessons from last year's failure\)](#)

## Garden in a Glove

If your program or center has space constraints, this activity is perfect for you! This simple activity allows children to investigate how and what seeds need to grow. Explain to your children that each seed contains a plant that will grow under the right conditions and describe what a plant needs to grow. Materials needed include:

- Rubber Bands
- Cotton Balls
- 5 different types of Seeds
- Vinyl Gloves
- Thin sharpie



See some examples and instructions below:

- [Garden in a Glove](#)
- [Science Take-Home Kits: Garden in a Glove](#)
- [5 Steps for a Garden in a Glove](#)

## Bean Necklace

In this activity, students make living necklaces using bean seeds that they can wear or keep on display in the classroom or at home for observation. The seeds will sprout 3-5 days after the activity is completed. All you will need are cotton balls, yarn, beans, water, and jewelry bags. See directions below:

1. Dip a cotton ball in water and gently squeeze out the excess moisture so it is not dripping. Flatten it like a pancake or tortilla
2. Place the bean seed in the middle of the damp cotton ball and wrap the cotton around the bean seed.
3. Place the seed and cotton ball in the jewelry bag and seal tightly
4. Thread a piece of yarn through the hole at the top of the bag, and tie the ends to make the necklace
5. After 3-5 days, open the bag to allow the seedling to get oxygen and add water. You can either plant the seed in soil at this point, or it can live for about two more weeks on the cotton ball, as long as it is provided with water and oxygen.

Find examples below.

- [Living Necklace](#)
- [Living Necklace Lesson](#)



## Garden Jars

Growing plants or herbs in jars is an inexpensive way to incorporate gardening into your program setting without taking up much space. Herbs like basil, thyme and mint can be easily grown within a jar and can be integrated into meal programming, but any herbs will grow in these settings. You will want to place jars in a location that receives at least 6 hours of sun per day, such as a windowsill or countertop, but these can be easily moved around to accommodate any growing environment. Materials needed for garden jars may include:

- Mason jars or other recycled jars
- Small stones - this may be obtained from a dollar store. Because jars will not have proper drainage, a layer of rocks, gravel or marbles about 2 inches deep in the bottom of jars will prevent root damage from excess water
- Herbs (can use either seeds or pre-grown seedlings)
- Potting soil
- Popsicle sticks or printed labels to label your plant



See examples below.

- [Start a Mason Jar Herb Garden](#)
- [How to Build a Mason Jar Garden](#)
- [How to Make a Mason Jar Herb Garden](#)

## CD Case Garden

This activity presents an excellent way to introduce concepts of recycling and also can be easily incorporated into a center or classroom with limited space. Materials needed include:

- Potting soil
- CD case
- Seeds
- Water
- Packing tape or clear tape
- Scissors

See example below:

- [Grow A CD Garden](#)



# Sensory Gardens

Sensory gardens are appealing to one or more of the five senses and strive to maximize the sensory experience of a garden while encouraging garden visitors to taste, touch, and listen. You may want to choose plants that are appealing to the senses - see some ideas below.

## Sound:

- Choose plants that make noise when wind passes through them, such as ornamental grasses
- Choose plants that encourage wildlife in the garden such as bees, crickets, or hummingbirds
- Choose plants with seed pods that make noises or crunch under little feet moving about the garden

## Touch:

- Plants that might invigorate the sense of touch might include the soft feel of a lamb's ear, cool moss, or rough seed pods
- Ensure that you aren't planting anything that may be dangerous to children like agave or rose bushes

## Smell:

- Choose highly aromatic plants such as honeysuckle, herbs like thyme, catmint, and spices to stimulate the sense of smell

## Sight:

- Add interest to a sensory garden by using plants with varying growth patterns such as those that climb, trail, bush, or stand upright
- Incorporate plants with different leaves, bark, flowers, and stem colors to provide visual appeal
- Plants that are visually striking include bleeding hearts, sunflowers, and rose mallow

## Taste:

- Edible fruits, herbs, spices, and vegetables planted in a sensory garden allows children and other garden visitors to entice their taste buds in the garden

## Resources:

- [Early Introductions to Sensory Gardens: Infants and Toddlers](#)
- [Creating a Sensory Garden](#)
- [Creating A Sensory Garden – Ideas And Plants For Sensory Gardens](#)

## Seed Window

This simple activity allows children to observe seed germination and serves as an easy introduction to plant growth.

See some examples below:

- [Germinate Seeds and Watch Them Sprout on the Windowsill](#)
- [At Home Activity: Window Garden](#)
- [DIY Seed Starting from Your Window](#)

## Old Coffee Mugs

Using old or broken coffee mugs is another great way to introduce gardening into your classroom or program without using a lot of space or equipment.

See examples below:

- [Upcycled Coffee Mug Planters](#)
- [DIY Garden Ideas: Coffee Mug Herb Garden Tutorial](#)
- [17 DIY Coffee Mug Ideas for the Garden](#)



# Farm to ECE Garden Activities

---

Below are some selected Farm to ECE garden activities that can be easily incorporated into a classroom, home, or program center for free or at very minimal cost.

**Painted Rock Garden Markers:** These painted markers are a great way to organize and add some more color to your garden while helping children identify fruits and vegetables. See examples below:

- [DIY Painted Rock Garden Markers](#)
- [Painted Rock Garden Markers](#)



**Worm Hotel:** Building a temporary hotel for worms with your children can introduce them to exploring nature and the creatures that inhabit it. While building the worm hotel with your children, explain to them that we need worms to provide food for birds or other animals and to help plants and their roots grow. You may explain to the children where worms usually live, like in the soil of gardens and under rocks. You can find an example of DIY worm hotels [here](#).



**Composting:** Composting promotes an environmentally friendly way to deal with waste while exposing children to concepts of recycling and planetary health. See resources on composting at your center below.

- [Composting in Childcare Production Gardens](#)
- [How to Make a Compost Bin for your Garden](#)
- [A Guide to Starting a Composting Program in Your School](#)

# Where to Find Low-Cost Garden Supplies

There are many ways to increase your garden inventory and materials while spending little to no money. See some selected tips and resources below on how to expand your garden on a budget.

1. Lowe's, Home Depot, or local gardening stores typically give away their extra seeds rather than throwing them away as long as you ask!
2. Use free gardening catalogs. These provide free gardening information, seed samples, and materials that you can use in your gardening planning. Some examples of gardening catalogs include [Burpee](#) and [Gardens Alive](#).
3. Use free composting materials as a replacement for buying plant fertilizer by recycling materials and leftover food scraps found in your home. You may also contact local coffee shops, restaurants, and diners to see if they have any food waste or used coffee grounds to donate for composting or fertilizer.
4. Save seeds from foods such as tomatoes, cucumbers, and peppers and store them in a cool, dry place for planting as an alternative to buying seeds and seedlings. Most seed companies also offer seed catalogs that provide discounts - see some catalog options for discounted seeds [here](#).
5. Join a local gardening group in your area or join one on Facebook - this is a great way to connect with other gardeners willing to trade items or give away items for free.
6. Make a homemade pest deterrent from common household items such as vegetable oil, garlic, and chili pepper. Avoiding harsh chemical pesticides is not only beneficial for the planet but helps cut costs.

## Low-Cost Garden Resources:

- [4 Ways to Get Cheap or Free Flower Gardening Supplies](#)
- [Garden Clearance Supplies through Amazon](#)
- [Places to Find Free Garden Supplies and Catalogs](#)
- [5 Free and Cheap Gardening Supplies](#)
- [22 Tips to Keep Gardening Dirt Cheap](#)
- [8 Great Tips For Finding FREE Compost Materials](#)
- [15 Places to Get Free Compost Near You!](#)
- [8 Natural & Homemade Insecticides: Save Your Garden Without Killing the Earth](#)

## Success Story

# KIDS PLACE

Darnitha Crossley

Gary, Indiana

Welcome to Kid's Place Childcare; this is our "Garden" where we grow some of what we eat. Our garden was built by past and present clients and children. From clearing the land to filling, planting, and plucking, the children are involved. Our children are the reason we started the garden to show them a different path of not just eating healthy but a way of life. We are furthering our children's future by showing them a self-sustainable way of living. Thus far we have harvested cucumbers, tomatoes, zucchini, oregano, parsley, and basil. These vegetables and herbs are used for seasoning and side dishes for the meals we hand prepare and serve daily. We are looking forward to expanding our "Garden" next year. We are very grateful to the State of Indiana for awarding us with the Go Garden Grant and look forward to more to come. See photos below from this year and last year's harvest.



A photograph of two young children, a girl and a boy, sitting on a colorful, curved bench. The girl is on the left, wearing a blue shirt and teal pants, looking down at a pink lunchbox. The boy is on the right, wearing a red and white striped shirt and red shorts, looking at a blue lunchbox. The lunchboxes contain various foods like bread, vegetables, and fruit. The background is a bright, outdoor setting.

## CHAPTER THREE

# PROCUREMENT

Securing local and healthful foods can be a rewarding experience that stimulates the local economy. ECE sites can help improve the nutrition of their children and encourage lifelong healthy eating habits with incorporation of local nutritious foods. See below for a brief outline of the requirements for procuring foods through CACFP, tips on getting started with procurement and suggestions for incorporating local foods into meal and snack times.

# Getting Started with Buying, Preparing, and Serving Local Foods

ECE sites can improve nutritious habits and instill lifelong healthy eating habits by incorporating local foods into meal programs. Here's how to get started buying, preparing, and serving local foods at snacks and meals. Much of this information was adopted from [How to Buy, Prepare, & Serve Local Foods](#) and [Michigan Farm to School Farm to Early Care and Education: A Step by Step Guide](#). See more resources below for additional information.

## Step 1: Gather Information

Use some of the tools described below to assess your ability to purchase local foods, identify places in your current menu where local foods may be incorporated, and allow you to think critically about what information you'll need to procure local foods.

### Local Foods Purchasing Assessment

This assessment has been adapted from the Michigan Farm to School Network and the Massachusetts Farm to School Network. These questions are designed to help determine and guide your ability to purchase local foods and will provide useful information as you begin networking with farmers and vendors about incorporating local foods into your program or center. See Appendix A for the full assessment.

### Menu Analysis Worksheet:

This worksheet will help you identify places in your current menu to substitute or add local foods. See Appendix B for the full worksheet







## Step 2: Start menu planning

- Start small by purchasing items that can be eaten whole or are easily cut, such as apples, berries, and cucumbers
- Incorporate or swap out one local ingredient in an existing menu item or snack.
- Involve children in every stage of the process by having them select veggies on a farmers' market visit or pick produce from the garden. Have them use child-friendly utensils like wavy choppers to prepare the produce for a snack!
- Use the Indiana Food Seasonality Chart to discover the range of produce available. See charts below to see when your favorite fruits and vegetables are in season!
  - [Indiana Seasonal Crop Calendar](#)
  - [Indiana Seasonal Produce Chart](#)
- Improve your culinary skills and practice seasonal recipes. For example, Indiana University posts healthy sides, appetizers, snacks, main dishes, and desserts every Friday - you can find archived recipes here (<https://healthy.iu.edu/wellness-information/nutrition/recipes.html>). You can also check your local library for seasonal recipe books.



### Step 3: Identify your team and resources

- Connect with local farmers and/or food service staff to create a plan
- Make a list of existing resources (parents, school garden, kitchen utensils) that you already have access to.

### Step 4: Set attainable goals

It may be beneficial to develop feasible goals to make procurement of local foods more manageable. Your goals may be:

- In one year, our center will have one Indiana food item on the menu
- In two years, our center will serve one Indiana food item every day on the menu
- Our center will add two new Indiana products to our procurement list every year



## Step 5: Find sources of local food

You may look for local foods at your center's garden, farmers, producers and processors, food hubs, distributors, Indiana Grown labeled products, or the Indiana Grown for Schools Website.

Define what local food sources means to you - your town, county, region, or state?

Explore purchasing options that work best for your site or center size. For family child care homes, registered ministries, or small group homes, you may consider:

- Look in your grocery store for the Indiana Grown label
- Purchasing from a farmer's market or farm stand. See [here](#) for a list of farmers' markets by county or use the website linked [here](#).
- Purchasing a weekly farm box from a CSA share. Look [here](#) to find a CSA near you.
- Purchasing directly from a farmer

For larger centers, you may consider:

- Purchasing directly from a farmer
- Asking your current caterer or distributor if they provide any local options, foods, or products

If your center has access to a garden, using food grown in your garden is an excellent way to start incorporating local foods.

Buying, Preparing, and Serving Local Foods Resources:

- [Healthy Eating at HOME: How to Plan, Purchase, and Prepare Effectively](#)
- [How to Buy Local Ingredients for Your Restaurant \(11 Best Sources\)](#)
- [Michigan Farm to School Farm to Early Care and Education: A Step by Step Guide](#)

# Meal Patterns

Local food can be incorporated into what your center or program is serving at snack time and meal times. Using seasonal produce is a great way to integrate fresh produce. For example, you may use berries on oatmeal in June, incorporate tomatoes for pasta in the fall, cut up Indiana bell peppers for snacks, and serve Indiana sweet corn in the summer. See below for meal pattern requirements in Indiana and ideas how to incorporate local foods into these meals.

## Breakfast:

Breakfast may include 6 fluid oz or 3/4 cup of milk, 1/2 cup of vegetables, 1/2 cup of fruits, and 1/2 oz of grains. Local fruits and vegetables can be easily incorporated into breakfast by serving fresh fruit as sides, such as fresh strawberries, blueberries, blackberries, raspberries, apples, and more. Fruits can also be added to yogurt or on top of toast or cereal. Peppers, spinach, mushrooms, onions or tomatoes may be incorporated into dishes with eggs. Best practices include serving a variety of fruits (canned, dried, frozen) more often than juice.

1/2 oz. eq.  
Whole Grain-Rich  
Mini Pancakes



**Sample Breakfast**



3/4 cup  
Unflavored  
Low-Fat (1%)  
or Fat-Free  
(Skim) Milk

1/2 cup  
Sliced  
Strawberries

## Lunch and Dinner:

A lunch or dinner may include 6 fluid oz or 3/4 cup of milk, 1.5 oz of meats or meat equivalents, 1/4 cup of vegetables, 1/4 cup of fruits, and 1/2 oz of grains. See below for a sample meal idea that incorporates these food groups.

**3/4 cup**  
Unflavored Low-Fat (1%)  
or Fat-Free (Skim) milk



**1 Taco**  
Made with  
**1 1/2 oz.**  
Lean Ground Beef,  
**1/4 cup**  
Lettuce\*, and  
**1/8 cup**  
Chopped Tomatoes

**1/2 oz. eq.**  
Enriched Flour Tortilla



**1/4 cup**  
Roasted Sweet  
Potatoes

**Sample Lunch/Supper**

A second, different vegetable may be served in place of fruit at lunch and supper. In this meal, the 1/4 cup of lettuce and 1/8 cup of tomatoes in the taco meets the vegetables component, and the 1/4 cup of sweet potatoes is used to meet the fruits component.

\*Raw leafy greens, such as lettuce, credit for half the amount served. The 1/4 cup of lettuce in the taco counts as 1/8 cup of vegetables in this meal.

In this above meal example, several of these food items may be sourced locally, including lettuce, tomatoes, sweet potatoes, tortillas, ground beef, and milk. Some ideas for incorporating more fruits and vegetables in lunch and dinner may be:



- Make wraps with lettuce



- Use spaghetti squash or spiralized vegetables like zucchini as noodles



- Add vegetables like finely shredded zucchini or summer squash to casseroles



- Add spinach, tomatoes, or avocado to grilled cheese



- Make vegetarian quesadillas with corn, tomatoes, red peppers, black beans, or onions



- Pile veggies like spinach and tomatoes on a homemade pizza



- Add a can of vegetable puree to soups



- Add carrot, sweet potato, or butternut squash to chili



- Add 1/2 sliced banana or a sliced apple to a peanut butter sandwich



- Add apple chunks, pineapple, grapes, or raisins to tuna or chicken salad



- Make fruit smoothies by blending together fresh or frozen fruit and yogurt or milk

## Snacks

Snacks are a great way to start small with buying local. A snack may include two of the following:

- 4 fluid oz or 1/2 cup of milk
- 1/2 oz equivalent of meat or meat alternatives
- 1/2 serving of vegetables
- 1/2 serving of fruit
- 1/2 oz of grains.

Fruits such as apples, cherries, grapes, melons, peaches, pears, and berries may be sourced locally. Vegetables are more available year-round than fruits and may also be easily incorporated into snack items. Some ideas of nutritious snacks with local foods for children may be:

- Sliced apple and cheese sticks
- Sliced cucumbers and carrots with pretzels
- Yogurt with berries and granola
- Banana dipped in nut or sunflower butter
- Sliced bell peppers with hummus
- Avocado spread on whole grain crackers
- Cantaloupe and cheese cubes
- Applesauce cup and graham crackers



# Using CACFP Funds

The Child and Adult Care Food Program (CACFP) is a federal program that provides reimbursements for nutritious meals and snacks to eligible children and adults who are enrolled for care at participating child care centers, day care homes, and meals served to children and youth participating in after-school care programs. Along with purchasing local food, CACFP funds can be used on costs associated with growing food that will be used in the CACFP, including seeds, fertilizer, plot rental, etc.

Federal regulations require that purchases made using CACFP funds comply with all federal, state, and local procurement requirements. Purchases should be made in a way that promotes open and fair competition. Records of purchases must be maintained. CACFP institutions should follow the formal and/or informal procurement process. For more information about financial management and procurement standards for CACFP visit <https://www.fns.usda.gov/cacfp/financial-management>

## Resources:

- [Indiana CACFP Policies](#)
- [Meal Pattern Resources:](#)
- [The Crediting Handbook for the Child and Adult Care Food Program \(CACFP\)](#)
- [Child Meal Pattern for CACFP](#)





# CACFP Meal Pattern Requirements

See below the CACFP Food Program Meal Pattern Requirements for children ages 1-5 years old. Recipes must be standardized to demonstrate that they meet appropriate meal patterns - see [here](#) for standardized recipe ideas through USDA. There are several opportunities to include locally sourced fruits, vegetables, and other produce in the meal pattern for CACFP programs.

Child Meal Pattern			
	1-2 Years	3-5 Years	6+ Years
<b>Breakfast</b>	4 oz milk 1/4 c fruits/vegetables 1/2 oz eq: roll, biscuit, muffin or 1/2 slice bread or 1/4 c cooked cereal, pasta or 1/8 c granola cold cereal or 3/4 c puffed cold cereal or 1/2 c flakes/rounds cold cereal or 1/2 oz M/MA 3x per week	6 oz milk 1/2 c fruits/vegetables 1/2 oz eq: roll, biscuit, muffin or 1/2 slice bread or 1/4 c cooked cereal, pasta or 1/8 c granola cold cereal or 3/4 c puffed cold cereal or 1/2 c flakes/rounds cold cereal or 1/2 oz M/MA 3x per week	8 oz milk 1/2 c fruits/vegetables 1 oz eq: roll, biscuit, muffin or 1 slice bread or 1/2 c cooked cereal, pasta or 1/4 c granola cold cereal or 1 1/4 c puffed cold cereal or 1 c flakes/rounds cold cereal or 1 oz M/MA 3x per week
<b>Lunch/ Supper</b>	4 oz milk 1/8 c fruit 1/8 c vegetable 1/2 oz eq: roll, biscuit, muffin or 1/2 slice bread or 1/4 c cooked cereal, pasta 1 oz meat, soy product, cheese or 1/2 egg or 1/4 c beans/legumes or 2 T peanut butter or 4 oz (1/2 c) yogurt or 2 oz (1/4 c) cottage cheese or 1/2 oz nuts/seeds = 50%	6 oz milk 1/4 c fruit 1/4 c vegetable 1/2 oz eq: roll, biscuit, muffin or 1/2 slice bread or 1/4 c cooked cereal, pasta 1 1/2 oz meat, soy prod., cheese or 3/4 egg or 3/8 c beans/legumes or 3 T peanut butter or 6 oz (3/4 c) yogurt or 3 oz (3/8 c) cottage cheese or 3/4 oz nuts/seeds = 50%	8 oz milk 1/4 c fruit 1/2 c vegetable 1 oz eq: roll, biscuit, muffin or 1 slice bread or 1/2 c cooked cereal, pasta 2 oz meat, soy product, cheese or 1 egg or 1/2 c beans/legumes or 4 T peanut butter or 8 oz (1 c) yogurt or 4 oz (1/2 c) cottage cheese or 1 oz nuts/seeds = 50%
<b>Snacks (<a href="#">any 2</a>)</b>	4 oz milk 1/2 c fruit 1/2 c vegetable 1/2 oz eq: roll, biscuit, muffin or 1/2 slice bread or 1/4 c cooked cereal, pasta or 1/8 c granola cold cereal or 3/4 c puffed cold cereal or 1/2 c flakes/rounds cold cereal 1/2 oz meat, soy product, cheese or 1/2 egg or 1/8 c beans/legumes or 1 T peanut butter or 2 oz (1/4 c) yogurt or 1 oz (1/8 c) cottage cheese or 1/2 oz nuts/seeds	4 oz milk 1/2 c fruit 1/2 c vegetable 1/2 oz eq: roll, biscuit, muffin or 1/2 slice bread or 1/4 c cooked cereal, pasta or 1/8 c granola cold cereal or 3/4 c puffed cold cereal or 1/2 c flakes/rounds cold cereal 1/2 oz meat, soy product, cheese or 1/2 egg or 1/8 c beans/legumes or 1 T peanut butter or 2 oz (1/4 c) yogurt or 1 oz (1/8 c) cottage cheese or 1/2 oz nuts/seeds	8 oz milk 3/4 c fruit 3/4 c vegetable 1 oz eq: roll, biscuit, muffin or 1 slice bread or 1/2 c cooked cereal, pasta or 1/4 c granola cold cereal or 1 1/4 c puffed cold cereal or 1 c flakes/rounds cold cereal 1 oz meat, soy product, cheese or 1/2 egg or 1/4 c beans/legumes or 2 T peanut butter or 4 oz (1/2 c) yogurt or 2 oz (1/4 c) cottage cheese or 1 oz nuts/seeds

# How to Work with Producers

Smaller centers may not need to work with producers directly as it is possible to secure local foods through farmers markets, Indiana Grown products, or CSAs as stated above. Larger centers that may require working directly with producers may consult the Farm to School Procurement toolkit. While this resource is aimed at programs with children in grades kindergarten through 12th, this will serve as a more extensive guide for working with producers. Please contact the Indiana Grown for Schools network if there are additional questions not addressed in this toolkit.

