



Community Garden “How To” Guide for Students

Master of Arts Project Defense
Michigan State University

By
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Abstract

The goal of the Community Garden “How To” Guide is for FFA members in Michigan to create a community garden at their home chapters. This guide encourages students to take charge of their learning and be the leaders of this project. Using this guide will allow a starting place for teachers to direct their students who have an interest in creating a community garden. This is a resource that students can use as a class to create a garden. Students will be able to start an SAE while creating the community garden that can lead to awards and future career opportunities. This project will focus on the importance of community gardens for students, teachers, and community members.

Committee Members

Dr. Buddy McKendree- Chairperson

Dr. Aaron McKim





Introduction

In 2019, Vicksburg FFA received a grant to start a community garden. This grant project got put on hold like many things in the world during covid. In 2022, when I got hired by Vicksburg I knew I wanted to make this grant project happen. The students' passion for this project is what fueled the fire to make it happen. This was a learning opportunity for not only the students but myself as well. I hope that I can share my experience with others around the state to have more chapters creating a community garden. It may not be perfect at first, but those experiences teach you way more than just giving all the answers.

The purpose of this how to guide is for students to create a community garden that is student led. Students will be able to identify materials needed to build the raised bed. Students will also be able to create a layout of vegetables and/ or flowers in the garden. Students will also be able to communicate with other students and community members to care for the garden. To meet this purpose, we proposed the following objectives.

Objective 1: Create material that FFA Members will be able to use to start a Community Garden at their school.

Objective 2: Students will be able to identify plant spacing for optimal growth.

Objective 3: Students will be able to identify complementary plants for best growth.





Literature Review

Starting a community garden is something that can be used for many years to come if planned properly. “An imperative first step to the school farm planning process is creating a vision. Before we went to our school board for the first time, myself, my fellow Ag teacher, and our FFA Alumni put together a 10-year vision that identified what we would accomplish each year.” (Geesey, A., 2023) This Community Garden “How To” Guide is to help get this planning started. Keeping in mind that this is just the start to an amazing opportunity.

The planning that goes into community gardens can be challenging on where to start. “When planning a school garden there are three things to consider: 1. How much space is available; 2. What is the growing season like; and 3. What resources are available to your program in order to complete the garden.” (Holden, R., 2023) The Community Garden “How To” Guide will highlight these points for students to think about.

Outdoor education has three key things to think about when describing it. “The word in referred to the location; taking place in the out of-doors. The word about referred to the subject matter; learning about nature. The word for referred to the purpose of outdoor education; for the future benefit of our planet’s finite resources.” (Simon, 1986, pp. 13) Those definitions give a great idea of what the purpose of outdoor education is. When thinking about outdoor education it's important to think about independent learning, free thinking, and self- reliant problem solving. These are things that make outdoor education so impactful for students. There are six major points to think about when thinking about the relationship that outdoor education creates. Here are three of those points. The first one is the method for learning. This is talking about using the outdoors for topics that are best understood outside of the classroom. The next one is the process of learning is experiential. The great thing about being outdoors is that things are always changing. This makes for a great experiential area. The third point is that the outdoors is the main area for learning, however it is not the only spot to do the learning. It has its values to be outside as you are learning about nature.

So often teaching is thought of as the teacher leading the learning. When we think of Experiential learning that is not the case. “The experiential approach places the subject to be learned in the center, to be experienced by both the educator and learner. This has a leveling effect on their relationship, to the extent that both can directly experience the subject.” (Kolb, A. Y., & Kolb, D. A., 2017) Creating Community gardens is an example of experiential learning. The first stage of experiential learning that students go through is concrete experience. This stage is that the learner actively experiments with a concept. I think of this stage as the students visiting a local community member who grows and sells vegetables. This will allow for students to communicate with people who have experience with gardens. This makes students feel connected to them. The next stage is reflective observation. This stage is the learner consciously reflects back on that experience. This stage can happen by asking the student's journal about the visit to the local garden. Students will be able to think back to how their garden was laid out and why that was important. Students will also be able to reflect on what they would need the same and change about the garden we visited. The third stage is abstract conceptualization. This stage is where the learner attempts to generalize a model of what is experienced. This stage can occur when the teacher prompts the student to think about what they may need for the community garden. This is the opportunity to talk about the location, crops, layout, and funding. The fourth stage is active experimentation. This stage the learner applies the model to a new experiment. This is where the community garden comes in. This is the chance that the students can take their experiences from the previous three stages and propose a plan for the garden layout. They will be able to use the information from the local community garden as a starting point to understand how plants interact with each other. Their reflection from that experience and the conversations from stage three will give the students a chance to be successful. Once they get to stage four, they will be able to go through the stages again to revisit the example plan, reflect, build more comprehension of gardens, and modify the plans through active experimentation.





Methods and Procedures

Administration

As the original grant was approved before my time at Vicksburg, reevaluation of the grant was needed. Students being a part of this conversation is important. It not only gives them ownership, but it also shows administration how much the students care about it. There were a few key things that the administration needed from us before moving it forward. The first was to talk about the location. When speaking about location they were looking for access to water, room to expand, and area available to use. The location that they gave us ended up being right next to the Agriculture room. It was a perfect spot with access to water and room for growth. Another key thing we had to consider was the distance between the raised beds. The reason for this was for the lawn mowers to get between the beds and not be more of a hassle to the maintenance workers.

Students

The most important part for students is that this is something that they are interested in. Their interest in this project is crucial for the success of the community garden. The students should be the ones putting in the most work for this project. This includes anything from speaking to the principal, planning the layout, to manual labor. Another part of this is getting students interested over the summer. As this is a key time for the growing season, having students help over the summer is crucial for a successful community garden.

Community Members

Members of the community would like an opportunity to work with the students on a project like this. This can be seen in a couple different ways. One way is speaking with the students about what the students learned about this project. Another way is experienced community members sharing their experiences with the students. Some community members may even want to donate soil, seeds, or other materials to the chapter. There might even be community members willing to help over the summer with students.





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Community Garden Timeline

Identify Student Interest

Set Goals

Identify Location

Select Crops

Create Layout

Get Funding

School approval

Identify labor

Prepare the land

First planting

Harvest

Reflect





Community Garden Goals

1) What are three things you hope to gain from the community garden?

2) Where do you hope to see the community garden in one year, five years, and ten years?

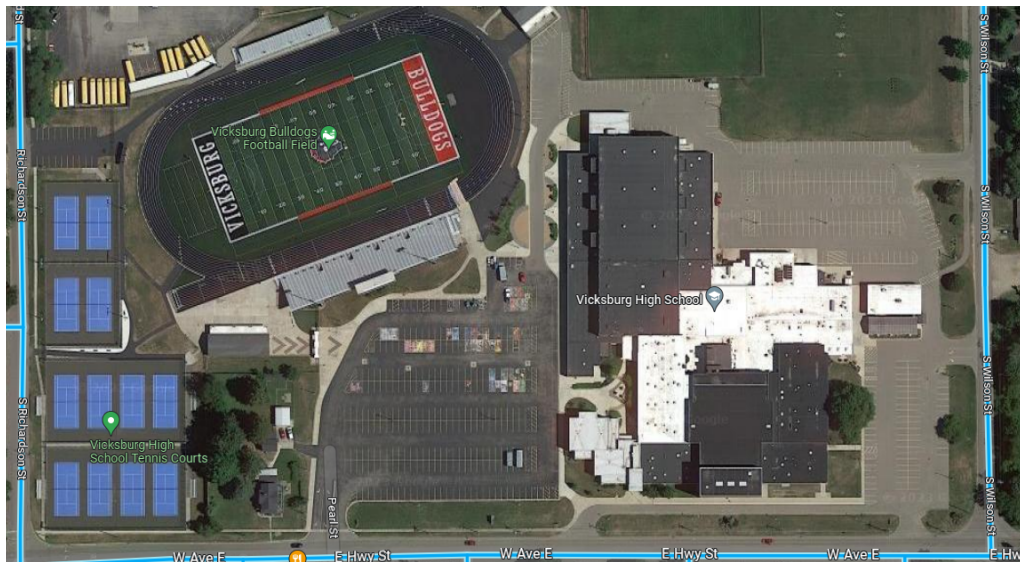
3) How much product would you like to have and what is your plan to do with what you harvest?

4) How do you plan to recruit other students and keep them engaged?

5) How do you plan to get the community involved? Do you have any community connections that you can use? If so, who are they?

Location

Using Google Maps, map out the outline of your whole school.
Attach the picture below.



School Map Here



Location

Think about three different locations around your school you would potentially like to use for the community garden, for the **first** location think through the following questions.

1) What water source is available for this location? Why is that important for a community garden?

2) Does this area have full sun or shade, what does that mean for starting a community garden at this location?

3) Do you have any trees in the way? Why could that be a issue around a community garden?

4) Does this area have room to grow for future years to continue to grow the community garden?

5) Based on this information, would you recommend this location?





Location

Now think about a community garden at the **second** location and answer the following questions.

1) What water source is available for this location? Why is that important for a community garden?

2) Does this area have full sun or shade, what does that mean for starting a community garden at this location?

3) Do you have any trees in the way? Why could that be a issue around a community garden?

4) Does this area have room to grow for future years to continue to grow the community garden?

5) Based on this information, would you recommend this location?





Location

Now think about a community garden at the **third** location and answer the following questions.

1) What water source is available for this location? Why is that important for a community garden?

2) Does this area have full sun or shade, what does that mean for starting a community garden at this location?

3) Do you have any trees in the way? Why could that be a issue around a community garden?

4) Does this area have room to grow for future years to continue to grow the community garden?

5) Based on this information, would you recommend this location?



Location

Using Google Maps again, map out the community garden location that works best after evaluating three different spots. Attach the picture below.



Community Garden Map Here



Garden Crops

When thinking about the crops you would like to use for the community garden location, think through the following questions.

1) What are Root Crops? Based on the location selected, would you recommend these types of crops, why or why not? If recommended, what specific variety would you suggest?

2) What are Cole Crops? Based on the location selected, would you recommend these types of crops, why or why not? If recommended, what specific variety would you suggest?

3) What are Legumes? Based on the location selected, would you recommend these types of crops, why or why not? If recommended, what specific variety would you suggest?

4) What are Vine Crops? Based on the location selected, would you recommend these types of crops, why or why not? If recommended, what specific variety would you suggest?

5) What are Black Night Shades Crops? Based on the location selected, would you recommend these types of crops, why or why not? If recommended, what specific variety would you suggest?

6) What are Grass Crops? Based on the location selected, would you recommend these types of crops, why or why not? If recommended, what specific variety would you suggest?



Garden Crops

Now that you know what type of crops work best for your location, select at least ten different crops you would like to grow. Fill in the table with the corresponding information. Used the table on the next page if you need more room.

Crop Name	Plant Spacing	Row Spacing	Variety	Days to Maturity	Life Cycle





Garden Crops

Use this table if you have more than ten crops you would like to use.

Crop Name	Plant Spacing	Row Spacing	Variety	Days to Maturity	Life Cycle





Garden Layout

Using the crops you selected on the table(s) on the previous page(s) answer the following questions to help you with the layout of your garden.

1) What plants are perennials vs annuals? Where will they be planted?

2) What plants will mature at the same time? Where will they be planted?

3) If you are doing a raised bed, what space needs to be in between the beds?

4) What are companion plants? (Scan the QR Code below)





Garden Layout

Now is the time to take all the information above to create a layout of the community garden.

When creating the layout make sure to include all of the following things crops name, row spacing, plant spacing, grouping crops according to the questions on the last page, compass, decorative features, materials needed, and ground cover. Make sure you are drawing to scale. Having a key will help you in the future.


1) Thinking about the space you selected to create the community garden in. Would it be ideal to plant the garden into the ground or do a raised bed? Why did you select the option you did?

If you selected to do a **garden into the ground**, you will be doing a draft on page 15 and 16. The two pages will lay next to each other to create a large page to work with.

Once you got approval from your Advisor to create it on the poster board, you will need a minimum size 22' x 36' poster to do the final layout on.

If you selected to do a **raised bed**, you will be doing a draft on page 17 and 18. Each page will be its own raised bed.

Once you got approval from your Advisor to create it on the poster board, you will need two 11' x 17' to do one raised bed on each poster board for your final layout.





Garden Layout

Garden into the Ground Left Side





Garden Layout

Garden into the Ground Right Side





Garden Layout

Raised Bed One





Garden Layout

Raised Bed Two





Garden Share Out

Congratulations you have a plan of what to do for a community garden! Now its time to share your idea with others. Sharing with your Administration and community members is a great start. Use the next five pages to guide you through those conversations.

Administrations

Here are a few things to have prepared before going to Administration.

1) How is this project getting funded?

2) What water source is needed for this project?

3) If you are doing raised beds, can a mower fit between the raised beds for maintenance to maintain the area?

4) What resources or support do you need from Administration





Garden Share Out

Community Member One

Here are a few questions to help you communicate with your community partner. Add another question to 5 that will benefit your conversation the most.

1) What changes would you make to the proposed community garden layout?

2) Does this layout use its space to the best of its ability?

3) Are the crops we selected places in an ideal spot for best production?

4) Is there a area of the community garden you would be interested in helping with?

5)





Garden Share Out

Community Member Two

Here are a few questions to help you communicate with your community partner. Add another question to 5 that will benefit your conversation the most.

1) What changes would you make to the proposed community garden layout?

2) Does this layout use its space to the best of its ability?

3) Are the crops we selected places in an ideal spot for best production?

4) Is there a area of the community garden you would be interested in helping with?

5)





Garden Share Out

Community Member Three

Here are a few questions to help you communicate with your community partner. Add another question to 5 that will benefit your conversation the most.

1) What changes would you make to the proposed community garden layout?

2) Does this layout use its space to the best of its ability?

3) Are the crops we selected places in an ideal spot for best production?

4) Is there a area of the community garden you would be interested in helping with?

5)





Garden Share Out

Community Partner Three

Add notes from the conversation with community partner three
here.





Funding

Funding Plan

Use the links on the next page to help you find grant funding opportunities to help your community garden become a reality.

Use those links to answer the following questions.

1) Name one grant that you can apply for and the deadline.

2) Name a second grant that you can apply for and the deadline.

3) Name a third grant that you can apply for and the deadline.

4) Create a committee to make sure the grants get accomplished.
Who is your committee?



Funding

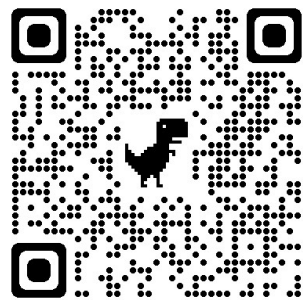
Grant Funding Opportunities

Growing Spaces



Living to Serve Grant

National Agriculture in the
Classroom



Seed Your Future



Funding

Budget Revenue/ Income

Line Items	Note	Amount
Grants		
Fundraiser		
Donations		
Total Income		



Funding

Budget Expenses/ Costs

Line Items	Note	Amount
Hoses	Soaker & Normal Hose, Ramps	
Mulch		
Raised beds	Planter Wall Blocks, Lumber, Rebar	
Tools		
Transplants		
Trellis		
Seeds		
Soil	Compost & Soil	
Total Income		



Community Garden Calendar

On the next twelve pages there is a blank academic calendar for your use. Below are potential things that you can add to your calendar. Add information that will best help your chapter create a community garden.

Meetings with Administration

Meetings with Advisor(s)

Meetings with community members

School approval

Grant deadlines

Planning/ work days

Working the land

Building the raised beds

Planting dates

Harvest dates

Who is checking on the garden over the summer and what days





Community Garden Calendar

August

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday





Community Garden Calendar

September

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday





Community Garden Calendar

October

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday





Community Garden Calendar

November

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday





Community Garden Calendar

December

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday





Community Garden Calendar

January

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday





Community Garden Calendar

February

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday





Community Garden Calendar

March

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday





Community Garden Calendar

April						
Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday



Community Garden Calendar

May

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday





Community Garden Calendar

June

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday





Community Garden Calendar

July

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday






Reflection

The creation of the Community Garden “How To” Guide sparked from my passion working with Vicksburg/ KRESA FFA Members. It was a learning curve for both me and my students. I took the experience from working with my students to create this resource. The key points that I highlighted on this were setting goals, finding a location, selecting crops, creating a layout, sharing with Administration and community members, finding and using fundings, and creating a community garden calendar. This resource is aimed to be used to start the planning process of community gardens at chapters around Michigan. I recommend coving curriculum around different crops, garden layouts, pests and disease prior to giving them this guide.

My goal for this project is to put it into use at Centreville next year. This will allow me to make edits to this guide for the future. I also plan to keep this guide going to create it as an ongoing guide for students to plan out multiple years.





References

Geesey, A. (2023). Lessons Learned: Starting a School Farm. *The Agricultural Education Magazine*, 95(6), 6-8.

Holden, R. (2023). Dig into school gardening: Planning and implementing a school-based garden into your SBAE program. *The Agricultural Education Magazine*, 95(6), 11-12.

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