



GROWING YOUR COMMUNITY

Student Guide

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Challenge Rationale

Students can contribute locally to the impact problems of population growth, access to resources, limited space for growing food, and year-round plant-based food production. After thoughtful research to evaluate how these challenges exist globally and locally, students will assess their local food system and create a solution to help minimize food insecurity in their community. The final product will be a functioning soil-based growing space for edible plants and products to benefit the area food system with an emphasis on community partnerships.

Establishing The Challenge

The Challenge

According to the United States Department of Agriculture, food insecurity is defined as a household's consistent access to adequate food being limited by a lack of money and other resources at times during the year.¹ Often, we think of this as being a problem affecting only third-world countries. However, Feeding America shares that 42 million Americans live in food insecure households.² Often, we think of individuals who are living with food insecurity as being homeless or easy to identify, but they could be your neighbor or even a classmate. What can we do to help solve this problem? One way to start solving this problem of food insecurity is to create sustainable local food systems.

¹U.S. Department of Agriculture, Economic Research Service. (2016). Definitions of food security. Retrieved from <https://www.ers.usda.gov/topics/food-nutrition-assistance/food-security-in-the-us/definitions-of-food-security/>

²Feeding America. (2017). Feeding America. Retrieved from www.feedingamerica.org

Establishing The Challenge

Challenge Question

With the challenge of food insecurity in communities across the globe, your team has been selected to assess your local food system and create a solution to help maximize food production and community partnerships while minimizing food insecurity in your community.

THIS SOLUTION MUST ADDRESS THE FOLLOWING NEEDS:

- Produce a variety of edible plants in a soil-based growing space
- Complete a needs assessment related to food and hunger in the community
- Maximize community impact with food products and partnerships

SUCCESS WILL BE DETERMINED BY:

- Creating, constructing, and maintaining an environment that is suitable for edible plant growth
- Showing progress towards a food-based long-term solution for the local community
- Demonstrating development and maintenance of community partnerships for the benefit of local food security

STEP ONE

1 | IDENTIFY



Purpose of Step

Define the need and how it affects life globally, nationally, and locally. Research and consider how others have approached solving the need including how people have addressed this need historically. Describe why this challenge needs a solution and determine constraints (e.g., time, space, resources, etc.).

Student Prompts and Guiding Questions:

- What is food insecurity?
 - a. What is the level of food insecurity in the United States and in your local community?
 - b. What are some ways to help reduce food insecurity?
 - c. What resources and community partnerships are available locally and could help with food insecurity issues?
- Conduct a SWOT (Strengths, Weaknesses, Opportunities, Threats) analysis of your growing space.
 - a. What kind of foods grow in your local environment and are best for distribution into the community?
- Conduct a SWOT analysis of your community with regards to food access.

Signs of Step Completion

Students will present a description of the challenge to the facilitator. The description should include how this challenge affects communities globally, nationally, and locally. The description should also include ways in which others have addressed finding a solution and constraints to be considered (e.g., time, space, resources, etc.).



Important discoveries during this step:

- Define the problem as it relates to you locally
- Plans for the next step
(e.g., knowledge to gain, questions to answer, preparations to make, etc.)

STEP ONE: REFLECTION

1 | IDENTIFY



Important Discoveries During This Step:

Define the Problem as It Relates to You locally:

Plans for the Next Step (E.g., Knowledge to Gain, Questions to Answer, Preparations to Make, Etc.):

STEP TWO

2 | IMAGINE



Purpose of Step

Brainstorm solutions to the challenge. List all of your ideas – don't hold back!
Discuss and select the best possible solutions.

Student Prompts and Guiding Questions:

- What solutions support sustainable food security in your community?
- What community partnerships will be most valuable in progressing your goal as a team?
- What does the soil-based space look like for your specific environment?
 - a. What materials and resources will you need to create this space?
- What other items will you need (e.g., seeds, plant starts, fertilizer, garden tools, etc.)?
- How do the growth zones and growing seasons affect your plant choice?
- What external factors do you need to consider when planting and maintaining (e.g., wildlife, pests, soil inputs, etc.)?
- How will your growing space interact with the surrounding environment?
- How will your team develop constructive community partnerships?
 - a. How will you initiate and sustain these relationships?
 - b. What can you develop to help in the development of these relationships (e.g., business plan, goal statement, etc.)?
- What is the benefit of making this a community effort?
- How will you sustain the effort to reduce food insecurity in your community after the challenge season ends?

Signs of Step Completion

Present a list of possible solutions to the identified challenge to the facilitator.

2 IMAGINE



List Your Possible Solutions:

Identify the Solution that You Think will be Achievable:

Plans for the Next Step (E.G. Knowledge to Gain, Questions to Answer, Preparations to Make, Etc.):

STEP THREE

3 | DESIGN



Purpose of Step

Develop a possible solution and identify the materials needed to provide evidence for why the solution is creative, unique, and sustainable. Write out the steps to take and describe the expected outcomes.

Student Prompts and Guiding Questions:

- Design a soil-based growing space that meets the demands set forth in the challenge.
- Determine what specific materials will be needed.
- What plants will successfully grow and be accepted as food in the community?
- Create a supply list and budget including potential resources and partnerships for financing the project.
- Describe the outreach tactics and deliverables for community partnerships.
 - a. List out potential community partners.
 - b. Plan for communication.
 - c. Describe how you will reach out to partners.
- Identify the timeline for the challenge season and beyond.
- Describe how the food will be harvested and sent through distribution channels in your community to best impact areas of food insecurity.

Signs of Step Completion

Present a detailed description of the solution as well as a written plan of how it could be carried out. Include the following in the plan: a materials list with budget (if building a physical model or conducting lab research), detailed directions, and expected outcomes.

STEP THREE: REFLECTION

3 | DESIGN



Important Discoveries During this Step:

Justify Your Model Design and the Materials You will Need:

Plans for the Next Step (E.G. Knowledge to Gain, Questions to Answer, Preparations to Make, Etc.):

STEP FOUR

4 | CREATE



Purpose of Step

Follow the design plan and construct the solution.

Student Prompts and Guiding Questions:

- Use all research, knowledge gained, and the design plan to implement the growing space as well as community partnerships.
- Revisit any of the previous steps for clarification or refinement as needed.
- Consider the parameters of the challenge and what needs to be accomplished for a successful challenge.

Signs of Step Completion

You will construct the solution and share with the facilitator.

STEP FOUR: REFLECTION

4 | CREATE



Important Discoveries During this Step:

Describe any Barriers You Overcame in Creating Your Model:

Plans for the Next Step (E.G. Knowledge to Gain, Questions to Answer, Preparations to Make, Etc.):

STEP FIVE

5 | TEST & IMPROVE



Purpose of Step

Test the design and collect qualitative and quantitative data. Discuss results and compare with the expected outcome. Seek areas of improvement and make changes where needed.

Student Prompts and Guiding Questions:

- Analyze the process of gaining community partnerships and adjust as needed.
- Maintain the growing space for maximum food production.
- Create data tables, graphs, photographs, and other appropriate supporting materials.
- Maintain community partnerships through a variety of means (e.g., updates, presentations, phone calls, etc.).
- Connect with local food distributors who are also advocating to reduce food insecurity in the community. Collaborate as the opportunity allows.
- What other factors are affecting all of the systems and what observations can be collected?

Signs of Step Completion

The students will keep records of all test trials and share data with the facilitator. Entries should include both qualitative and quantitative data. The students will also share recordings of any improvements made to the solution and the effect they had on the outcome.

STEP FIVE: REFLECTION

5 | TEST & IMPROVE



Important Discoveries During this Step:

Impacts to the Global, National, and Local Community:

Plans for the Next Step (E.G. Knowledge to Gain, Questions to Answer, Preparations to Make, Etc.):

STEP SIX

6 | SHARE



Purpose of Step

Communicate what was learned throughout the challenge. Share the design process, data, and conclusions on how the solution answers the challenge question.

Student Prompts and Guiding Questions:

- Develop a presentation including knowledge gained, design plans, partnerships, and strategies for sustainable influence in the community in the area of food insecurity.

Signs of Step Completion

Present what was learned through the design process, including sharing how the solution addresses the problem, key aspects of design, data from test trials, and end results.

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