



Module 4: Food Desert to Food Oasis, Food Security and Urban Farming

GOALS AND OBJECTIVES:

During this lesson, students will identify environmental circumstances that influence their own dietary choices and food access. They will examine the components of a healthy meal through a neighborhood food security lens. Students will also identify the geographic and socioeconomic characteristics of a neighborhood that contribute to and are reflected in its calculated food security status. Lastly, students will examine how urban agriculture can lead to community food security and resilience.



TIME: 1 hour, 20 minutes

Optional additional activities: 15 minutes

MATERIALS:

- Module 4 Teacher Print Kit
- Module 4 Student Handouts
- Whiteboard and markers (or large sheet of paper and markers)
- Sticky notes and pen
- Colored markers (black or blue pens are okay)
- Blank paper

Optional:

- Technology to show a YouTube video



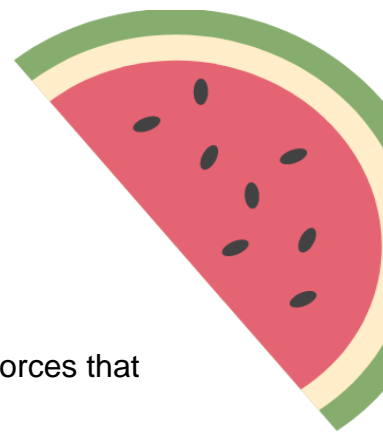
TEACHER BACKGROUND:

Despite an abundance of nutritious food available in the United States, hunger and nutritional inadequacy persist in this country. A prevalent myth is that some of this hunger is due to laziness. It is to the contrary as a legacy of economic, social, health, and cultural inequalities contribute to widespread nutritional challenges—both under and overnutrition—closely related to food security and food insecurity.

We all have different food choices available to us based on our circumstances and opportunities. These circumstances include how far we are from food outlets, such as grocery stores and farmers markets, whether we have access to reliable transportation, and whether our income is sufficient to meet our need for healthy food. Health status can also impact what foods we can eat and easily digest. Additionally, global pressures, market forces, and policy can impact our availability and access to food. All these factors impact our *food security*, defined by the USDA as “access by all people at all times to enough food for an active, healthy life.”¹ The United Nations’ Committee on World Food Security has a broader definition, clarifying that food security is a state in which “all people, at all times, have physical, social, and economic access to sufficient, safe, and nutritious food that meets their food preferences and dietary needs for an active and healthy life.”²

Despite being one of the richest countries on the planet with a robust agriculture industry, an estimated 10.5% of U.S. households (13.8 million people) were food insecure at some point during 2020.¹ People facing food insecurity are often also experiencing poverty, as food insecurity does not exist in a vacuum. Many low-income people are affected by multiple, overlapping issues like lack of affordable housing, social isolation, economic/social disadvantage resulting from structural racism, chronic or acute health problems, high medical costs, and low wages. In sum, these issues are important social determinants of health, suggesting that efforts to improve food security must address root causes, not just food production. People across the US are working hard, and in creative ways, to address how food insecurity impacts health, economic productivity, and general wellbeing.

In this lesson, we explore the factors that drive food security and consider how urban agriculture might contribute to improved food security and neighborhood resilience by promoting nutrition, health, economic empowerment, community building, and environmental stewardship (Please see “The Benefits of Urban Agriculture” page 6 in the Teacher Print Kit for more information). Lastly, we discuss how urban agriculture lends to the Blue Zones Project’s eight principles of a long healthy life. The Blue Zones was a National Geographic project that identified five regions of the world where people live the longest, and then studied the habits and culture in these areas. The project found 8 principles that all five areas shared. The principles include regular body movement, purpose, nutrition, and community building (Please see the Blue Zones, pages 7-9, in the Teacher Print Kit for more information).



OPENING DISCUSSION:

Start this lesson with an open discussion about food choices and external forces that might impact one's food security.

- *Are individuals responsible for their own food choices? Always? Can you think of examples where they are or are not in control?*
- *What does food security mean to you? What do you think it feels like to not be food secure?*
 - You may want to provide one of the definitions of food security from above to help your students here:
 - USDA: “access by all people at all times to enough food for an active, healthy life.”¹
 - The United Nations’ Committee on World Food Security, food security is a state when “all people, at all times, have physical, social, and economic access to sufficient, safe, and nutritious food that meets their food preferences and dietary needs for an active and healthy life.”²



ACTIVITY #1: FOOD CHOICE



TIME: 15 minutes

MATERIALS:

- White board (or large paper) and markers
- Sticky notes and pen

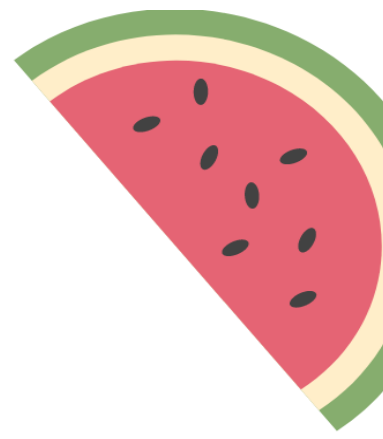
LESSON:

1. Brainstorm with students: *What influences food choice?* Write each idea on a sticky note and post on the board or paper.
 - Steer students to cover the following: food and farm policy, budget and price, culture, taste, marketing, health, convenience, availability, religious beliefs.
2. Write two headings on the board: **My Choice** and **Chosen for Me**. As a group, sort the sticky notes into these two categories. You may have some sticky notes that land somewhere in the middle.
3. *Food choices happen in two steps. We are first presented with food options, and then we are able to choose. Our options are dependent on what is available in our location, what is within our budget, and what is reasonable to attain. We then must choose our food from these constraints.*
 - *What circumstances change our food options?*
 - Ideas: Whether we have a car, good public transportation, our income level, what kinds of food outlets are near us, etc.
4. Have each student choose 1 or 2 sticky notes from the “Chosen for Me” category on the board. Ask students to brainstorm ways these influences over food choice could be moved closer to the “My Choice” category. You might discuss:
 - Marketing: I can change what TV shows and magazines that I watch
 - Availability: I can work with my corner store to stock more healthy foods
 - Availability: I can grow a container garden on my porch
 - Culture: I can show my family a new recipe

ACTIVITY #2: BUILDING A HEALTHY MEAL



TIME: 20-25 minutes



MATERIALS:

- Student Handouts
 - Includes: Healthy Eating Plate (page 1)
 - Includes: Jadyn slide (page 2) and Amari slide (page 3)
 - Includes: Food Security Pyramid (page 4)
- Blank paper
- Colored markers (non-colored pens will work)

LESSON:

1. Go over the Healthy Eating Plate included in the Student Handouts (page 1). Read aloud the categories with the group and define each.
2. Have each student draw their own plate on a piece of paper and draw one meal that is balanced and reflects the Healthy Eating Plate. It may be helpful to remind students that food categories can be combined into one dish. (For example, a soup might have rice, veggies, protein, and oil).
3. Ask students to share their meal ideas with the group. Have students explain how each category is covered on their plate.
4. Read aloud the food access stories of both Jadyn and Amari provided in the Student Handouts (pages 2-3).
 - Use the sorted post-it notes from Activity #1 to facilitate discussion about Jadyn and Amari's food choices.
 - Ask students to take turns pointing out one of the post-it notes, and sharing with the group how that note relates to Jadyn's story.
 - Repeat the above process for Amari's story.
 - *Which person would have an easier time creating the healthy meal you created on your plate? Why?*
 - *Take a look at the Food Security Pyramid on page 5 of both the Teacher Print Kit and Student Handouts. Do you think that Jadyn and Amari are experiencing different levels of food security? Why or why not*



ACTIVITY #3: MAPPING FOOD SECURITY



TIME: 20 minutes

MATERIALS:

- Student Handouts
 - Includes: Mapping Food Security (pages 5-7) (1 copy per group of 2-3 students)
 - Includes: Food Map Questions (page 8) (Optional: 1 copy per 1-3 students)
- Pens

LESSON:

1. According to the USDA, food security means “access by all people at all times to enough food for an active, healthy life”.¹ Food security is influenced by factors such as budget, transportation, and proximity to healthy food outlets. The opposite of food security is food **insecurity**.

According to the US Department of Agriculture (USDA), “**Food-insecure** households are uncertain of having, or unable to acquire, at some time during the year, enough food to meet the needs of all their members because they had insufficient money or other resources for food: 10.5 percent (13.8 million) of U.S. households were food insecure at some time during 2020.”³ Potential effects of food insecurity include less intake of fruit and vegetables, increased risk of obesity and diabetes, as well as increased anxiety and depression in children. Food insecurity can also affect children’s academic performance and affect behaviors negatively at school.⁵

2. Hand out neighborhood food maps and questions found in the Student Handouts (pages 6-9). Read the discussion questions aloud and allow students time to discuss or write their answers in small groups.
3. Discuss:
 - *For each neighborhood, where do you think most residents get their food from? Do you think this differs between people who have access to a car and those who don’t?*
 - *In which neighborhood do you think residents eat the healthiest food? Why?*



- *In which neighborhood do you think you would have the hardest time finding good food at an affordable price? Why?*
- *What are ways we could improve food security, and hence healthy eating, in all neighborhoods?*

Ideas:

- Increase participation in the SNAP program (food stamps)
- Establish more urban gardens.
- Bring communities together for more group meals.
- Encourage schools to create a free breakfast program for all students.
- Encourage convenience stores to stock healthy foods.
- Attract good jobs to the area so that people can afford better food (this also encourages supermarkets to move into the neighborhood)
- Establish farmers markets.

CONNECTING TO THE GARDEN



TIME: 15+ minutes

MATERIALS:

- Technology to show YouTube video

LESSON:

Urban Agriculture is one way that communities experiencing food insecurity can establish resilience. As a segway to the Urban Agriculture Activity, consider watching an example of an urban farmer creating community resilience in South Central Los Angeles with students.

1. Gangsta Gardener Ron Finley
 - TED X: (10:45) ***Contains mild language**
 - [A guerilla gardener in South Central LA | Ron Finley](#)
 - Game Changers: (5:11)
 - [Ron Finley: Urban Gangsta Gardener in South Central LA | Game Changers](#)
2. After the video, consider taking a tour of your own garden, and reflect on ways that the garden contributes to the health and wellbeing of the group. Discuss how the garden might better serve the community.

ACTIVITY #4: COMMUNITY THRIVING THROUGH URBAN AGRICULTURE



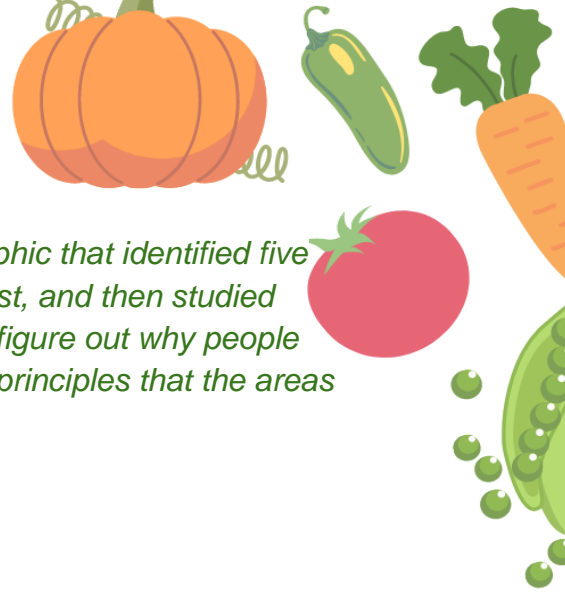
TIME: 15-20 minutes

MATERIALS:

- Teacher Print Kit
 - Includes: The Benefits of Urban Agriculture (page 5)
 - Includes: Blue Zones Principles (pages 6-8)
- Student Handouts
 - Blue Zones Principles (page 9)
- White board or paper and markers

LESSON:

1. First, define urban agriculture for your students.
 - “Urban agriculture includes the cultivation, processing and distribution of agricultural products in urban and suburban areas.”⁴ Urban agriculture is often used as a way to bring jobs and access to healthy food to areas that are considered food deserts. It can look like many different activities, from community gardens that pour into potlucks, to hydroponic growing enterprises that provide jobs for neighborhood workers.
2. Next, use the urban agriculture slide in the Teacher Print Kit (page 6) to explain to students the benefits of urban agriculture.
 - Optional: Write on the board five categories of urban agriculture benefits as you talk about them:
 - Nutrition
 - Health
 - Economy
 - Community
 - Environment
 - Discuss: *How might urban farming change Jady’s access to food from Activity #2: Building a Healthy Meal? What about Amani’s?*
 - Brainstorm urban farming activities that might improve access to food for the neighborhoods we looked at in Activity #3.

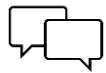


3. Finally, introduce Blue Zones:

- *The Blue Zones is a project by National Geographic that identified five regions of the world where people live the longest, and then studied the habits and culture in these areas in order to figure out why people lived so long in these places. The team found 8 principles that the areas shared:*
 - *Move Naturally*
 - *Purpose*
 - *Down Shift*
 - *80% Rule*
 - *Plant Slant*
 - *Right Tribe*
 - *Loved Ones First*
 - *Belong*

- Use the Blue Zones Principles on pages 7-9 of the Teachers Print Kit to explain each of the Blue Zones principals to students.

- As a group, go through all 8 Blue Zone categories one by one, and come up with ideas on how urban agriculture relates to each.



CLOSING DISCUSSION:

End this lesson with a brief discussion on power and food choice.

- *What choices are within your power today to make healthier food choices?*
 - *Why is this important?*

- *What strategies are within your power to create more food choices for yourself and others in your neighborhood and wider community? In what other ways, besides healthy food availability, might these strategies make your community more resilient?*



REFERENCES:

1. *Economic Research Service*. (2023, May). U.S. Department of Agriculture. <https://www.ers.usda.gov/>.
2. Food and Agriculture Organization. (2006, June). *Policy Brief Food Security* (Issue Brief no. 2). https://www.fao.org/fileadmin/templates/faoitaly/documents/pdf/pdf_Food_Security_Concept_Note.pdf.
3. *Interactive Charts and Highlights*. U.S. Department of Agriculture, Economic Research Service. <https://www.ers.usda.gov/topics/food-nutrition-assistance/food-security-in-the-u-s/interactive-charts-and-highlights/>.
4. *Urban Agriculture*. U.S. Department of Agriculture. <https://www.usda.gov/topics/urban>.
5. (2020, June 26). *Unit 3: Consumers and Communities*. Johns Hopkins Bloomberg School of Public Health. <https://www.foodspan.org/lesson-plans/unit-3-consumers-and-communities/>

Activity 2:

Harvard T. H. Chan School of Public Health. (2023, January). *Healthy eating plate*. The Nutrition Source. <https://www.hsph.harvard.edu/nutritionsource/healthy-eating-plate/>

Activity 3:

Lesson plan adapted from Johns Hopkins Foodspan Lesson #14: The Hunger Gap: [Unit 3: Consumers and Communities](#)

Maps adapted from:

Wright, A. (2011, May 3). *Interactive Web Tool Maps Food Deserts, Provides Key Data*. U. S. Department of Agriculture. <https://shorturl.at/fwDRX>

[Google Maps](#)

Activity 4:

Adapted from Buettner, D. *Power 9*. Blue Zones. <https://www.bluezones.com/2016/11/power-9/>.

Adapted from Dewey, S. (2021, December 23). *The Power of Urban Agriculture in Transforming a Community*. Conservative Law Foundation. <https://shorturl.at/eiyR2>.

Garden Connection:

Finley, R. [WMX Presents]. (2015, December 16). *Ron Finley: Urban Gangsta Gardener in South Central LA*. [Video]. YouTube. <https://youtu.be/7t-NbF77ceM>

Finley, R. [TED]. (2013, March 6). *A guerilla gardener in South Central LA*. [Video]. YouTube. https://youtu.be/EzZzZ_qpZ4w