LESSON Seven

SUSTAINABLE DEVELOPMENT GOAL #2, ZERO HUNGER **For Educators**



End hunger, achieve food security and improved nutrition and promote sustainable agriculture

IMAGE BY ISTOCK

Lesson 7: Sustainable Development Goal #2: Zero Hunger Student Handout

Module Driving Question: Lessons 7, 8, and 9 (Note: choose one of both these module questions)

- Do you believe local and global efforts to decrease hunger, achieve gender equality, and provide reliable access to clean water and sanitation are fundamental human rights? Why or why not?
- How have environmental factors affected local and global efforts to decrease hunger, achieve gender quality, and provide reliable access to clean water and sanitation?

Lesson Driving Questions

- How is food insecurity (or hunger) impacting individuals and communities around the world?
- How does food insecurity disproportionately impact specific populations such as youth, women and girls, or the elderly?
- What can be done to address the issue of food insecurity (hunger) locally and globally?

Learning Targets – I Can:

- Explain the causes of food insecurity locally and globally and evaluate the effects of systemic hunger on people's lives.
- Identify and explain ways to address food insecurity to others in my class and school community.
- Evaluate and discuss how food insecurity impacts efforts to achieve gender equality, quality education, and good health.

Purpose

In this lesson, you will explore SDG #2, Zero Hunger, and the efforts of nations, international organizations, and local communities in addressing food insecurity around the world. You will analyze the causes and effects of food insecurity in different contexts and create and evaluate courses of action to alleviate hunger locally and globally. You will work with other students to examine strategies that will increase food security and its relationship to other development goals such as education, health, and gender equality. As part of your learning, you will use the online resource Jamboard or a KWL Chart to brainstorm what you know about food insecurity and what you would like to learn. You will watch video clips, examine infographics, participate in small and large group discussions, and investigate the impact of food insecurity in a specific context. In addition, you will learn about local organizations that are making a difference in addressing food insecurity and hunger-related issues. Finally, you will develop a short video to share with your class about your specific research and explain steps that could be taken to address food insecurity.

Lesson Vocabulary

Food insecurity, sustainability, inequality, malnutrition, disease, nutrition, climate change, poverty, food systems, food waste, consumer, stunted growth, inclusive, pandemic, anemia, equity, gender equality, human rights, food citizenship, sustainable agriculture/farming.

Lesson Steps

- 1. Warm-Up Activity: Define, Reflect, and Brainstorm what you know about "food insecurity" using the KWL Chart or Jamboard. For example, when you hear the words "food insecurity," what do you think about? How would you define "food insecurity" and how do you think it impacts individuals and communities? Use the KWL chart to reflect/brainstorm ideas on what you know (or think you know) at this point.
- 2. Learn about the United Nations Sustainable Development Goal #2: Zero Hunger, by watching a <u>video clip</u> from the U.N. As a class, have a discussion comparing what you learned in the video with your initial KWL or Jamboard activity? What existing or new questions come to mind? Check out this UN site for additional videos and information: <u>The Five Phases of food Insecurity Explained</u> and <u>State of Food Security and Nutrition in the World 2023</u>.
- **3.** Think-Pair-Share: Learn more about the need to eliminate hunger and food insecurity by reading and analyzing the following <u>SDG #7 Fact Sheet</u> and <u>Infographic</u>. After examining the fact sheet, write down 10 key words highlighted in the document (*For example, pandemic*).

Next, compare your list with another classmate. What words are similar and which ones are different? Choose 3 words from your list and explain why you think they are important to your partner. Next, look at the infographic with your partner and analyze the statistics provided on malnutrition.

Discuss: How do you think malnutrition well-being and future development. After discussing with your partner, share your thoughts with your classmates in a large group discussion.

- 4. Reflect and Discuss: What is a sustainable food system? Write down your own examples of a sustainable food system. You can start by considering what a food system is and then explain how it would be sustainable. Next, here are videos you can watch for more background information: Why Do We Need to Change Our Food System. Make connections: You can also explore the impact of climate change on food systems through this short video: Food Systems and Climate Change.
- 5. Whole Class Discussion: Learn about food waste by exploring this overview of <u>UN Environment</u> <u>Programme Food Waste Report</u> from 2024 and watching a short video. Consider these questions: What do you know about food waste? How does food waste contribute to food insecurity? What are we *doing (or could we do)* at our school to prevent food waste? Be prepared to discuss your ideas in class discussion.
- 6. Going Deeper: Research Activity: In pairs or small groups, research a specific place in the world impacted by food insecurity. You can choose a location that is local (*and near to where you live*) or a place that is in another region of the world. Your **task** is to use your research skills to find a minimum of 3 -5 primary and/or secondary sources on food insecurity and/or hunger-related challenges in your selected location.

Use the **graphic organizer** to take notes on the following: What are the causes and effects of food insecurity in this context? How is food insecurity impacting individuals and groups living in that society *(think about* World Affairs Council – Seattle 13

the impact of food security and the examples you have already learned about it in previous activities)? What local, state, national, or international efforts are being made to address the issue?

- 7. As a group, create an advocacy video that gives an overview of your research findings. In your video, please explain one or more steps that could be taken to address food insecurity in your selected place and why it matters to act on this issue.
- 8. Share your video with the rest of the class. Then, as a class, analyze and discuss additional food insecurity solutions in preparation for learning about the UN Food Systems Summit in step 9.
- **9.** Explore the UN Food Systems Summit (*from 2021*) for ideas on acting to alleviate hunger and food insecurity. What were some of the outcomes of the summit? What organizations, local or global, could you engage with to make a difference on hunger or food insecurity? **Discuss** as class.
- 10. Apply what you have learned about climate change by completing one of the projects identified by your teacher. For example, explore further by investigating local organizations in Washington State/Pacific Northwest that are addressing climate change. See the organizations listed in lesson resources.

Teacher Preparation Notes

Pacing and Strategy: The following outline provides a guide for teaching this lesson including approximate times (may vary), teaching strategies, suggested information for teacher created slides, and options for additional enrichment activities/summative assessments can be found at the end of the modules. This curriculum model was designed with teaching and learning strategies that could be adapted for in-person or virtual learning.

Lesson Timing: 120-150 (approximate)

Standards

Content	Standard		
WA Social Studies	SSS1.6-8.1: Analyze positions and evidence supporting an issue or an event.		
	SSS3.6-8.1: Engage in discussion, analyzing multiple viewpoints on public issues.		
	G2.9-10.1: Analyze human interaction with the environment across the world in the past or present.		
	G2.9-10: Explain that humans cope with and adapt to environmental conditions.		
Next Generation Science Standards	HS-PS4-4: Gather relevant information from multiple authoritative print and digital sources, using advanced searches effectively; assess the strengths and limitations of each source in terms of the specific task, purpose, and audience; integrate information into the text selectively to maintain the flow of ideas, avoiding plagiarism and overreliance on any one source and following a standard format for citation.		
	HS-ESS3-1 . Construct an explanation based on evidence for how the availability of natural resources, occurrence of natural hazards, and changes in climate have influenced human activity		
	HS-ESS3-1 : Cause and Effect: Empirical evidence is required to differentiate between cause and correlation and make claims about specific causes and effects.		
C3 Framework	D2.Geo.4.9-12: Analyze relationships and interactions within and between human and physical systems to explain reciprocal influences that occur among them.		
	D2.Geo.9.9-12: Evaluate the influence of long-term climate variability on human migration and settlement patterns, resource use, and land uses at local-to-global scales.		
	D2.Geo.10.9-12. Evaluate how changes in the environmental and cultural characteristics of a place or region influence spatial patterns of trade and land use.		

D2.Eco.15.9-12. Explain how current globalization trends and policies affect economic		
growth, labor markets, rights of citizens, the environment, and resource and income		
distribution in different nations.		

Lesson Resources

For Students	For Educators	Materials
 KWL Chart (<i>if not using Jamboard</i>) Graphic Organizer Research Notes Sheet UN Links to infographics and videos (<i>see lesson details</i>) 	 Lesson Seven Slide Outline KWL Chart (<i>if not using Jamboard</i>) Graphic Organizer Research Notes Sheet UN Links to infographics and videos (<i>see lesson details</i>) 	 KWL Chart (if not using Jamboard) Graphic Organizer Research Notes Sheet Summative Assessment Options

Lesson Overview

In this lesson, students learn about United Nations Sustainable Development Goal #2: Zero Hunger. They will examine the causes and consequences of food insecurity and explore courses of action to address the issue. Students will engage in activities to reflect on previous knowledge, acquire new learning, and develop 21st century skills such as critical thinking, problem solving, and collaboration. In this lesson, students will explore the issue of food insecurity through a KWL or Jamboard activity, UN video and infographics, small and large group discussions, research activity, and advocacy project. These individual and collaborative learning experiences will help students deepen their understanding of food insecurity and its impact on communities locally and globally. There are enrichment projects for students to explore the topic further and connections to local organizations that are taking action to alleviate food insecurity. Through these activities, students will communicate what they have learned about zero hunger and utilize analysis and research skills to generate viable solutions.

Teacher Preparation

For Step 1: Examine the United Nations website on the <u>17 Sustainable Development Goals</u>. This will give you an overview of the different goals if you are not familiar with them. Next, click on this <u>link</u> to learn more about SDG #2 and the specific targets for understanding the causes and consequences of food insecurity. Watch some of the videos that introduce the goals and examine the specific links on the page related to climate action.

Prepare an example that you can share with the students for their KWL Chart (*brainstorming activity*). Check to make sure you are familiar with Jamboard or use the KWL Chart provided (*see handout*).

For Step 2: Go back to the UN <u>link</u> for SDG #2 and review the specific targets and indicators (*goals to be achieved by 2030*). Watch the video link you will be showing to the class.

For Step 3: Go to the "Progress & Info" tab and read about some of the progress that has been made toward some of these goals. Examine the images on the site to reflect on key data points in preparation for having students analyze and discuss the fact sheet and infographics. <u>SDG #2</u> provides additional articles and reports at the bottom of the page.

For Step 4: Think about how you will discuss "food systems" with students and why they are important. Watch the following video for additional background information: <u>Why Do We Need to Change Our Food</u> <u>System</u> and this video about on <u>Food Systems and Climate Change</u>. Next, discuss the significance of food systems and how factors such as climate change are impacting the stability of food systems.

For Step 5: Think about the challenge of food waste locally and globally. Explore the <u>UN Environment</u> Programme Food Waste Report from 2024. Since the report is long, you could focus on these <u>key messages</u>. There is a helpful short video to watch that can be used to stimulate a discussion with students. Consider asking students these questions (and how you would respond): What do you know about food waste? How does food waste contribute to food insecurity? What are we doing (or could we do) at our school to prevent food waste? For additional information and context, check out these links: <u>UN and Food Waste</u> and <u>World Food Program</u>

For Step 6: Consider a list of places, local and/or global, that students can choose from for their research inquiry. You can check out the <u>World Food Programme</u> and this recent <u>UN article</u> for ideas and/or use your own community as a context. You can decide (*with your students*) which contexts might be of interest to your class and determine the process for having students select their location of interest. Have the research notes sheet (*graphic organizer*) ready for students to utilize.

For Step 7: Review your expectations for the videos. One option is for students to make a series of flip videos. You can find out more at this <u>link</u>. Be prepared to walk students through an example so they are familiar with the technology. Students will be using the research information from Step 4 to complete their brief video.

For Step 8: Be ready to have students show their videos and/or upload their videos for the rest of the class to see and discuss. After watching student videos, discuss ideas for taking action on hunger and food insecurity. You will have an opportunity to explore ideas in more depth in step 9 or "exploring further."

For Step 9: Have students explore the UN Food Systems Summit (from 2021) link for ideas on taking action against hunger and food insecurity. Here is a <u>link</u> to the 2024 summit that will be taking place in Rome. There is an option for exploring local opportunities for taking action at the end of the lesson.

For Step 10: If you are going to assign one of the summative activities, review the options and see what options you would like to make available to students.

Lesson Plan in Detail

Step One: Introduction to SDGs and KWL Chart or Jamboard: 10 minutes

Purpose: Explain to students they will be exploring the UN Sustainable Development Goals. Depending on their knowledge of the SDGs, introduce their purpose and show them a graphic of the 17 goals. Then, explain that this lesson focuses on hunger and food insecurity around the world.

They will be engaging in an activity to reflect and brainstorm what they know (or think they know) and what they would like to learn using the Jamboard link. If you prefer, you can use the KWL Chart provided as a handout.

Slide 1: UN SDG overview slide of the 17 goals. KWL Chart/Jamboard instructions. You can share an example of your knowledge of how food insecurity is impacting individuals and communities locally and/or globally.

Step Two: Learning about the UN Sustainable Development Goal #2: Zero Hunger: 10 minutes

Purpose: Students are introduced to the UN Sustainable Development Goal #2, Zero Hunger, and why an understanding of food insecurity and food systems is an important local and global issue. They will watch a couple of short videos and discuss their initial reactions as a class. This would be an opportunity to emphasize how the 17 SDGs are interconnected and how SDG #2 would affect progress on other goals (*including those in this module: SDG #5 Gender Equality and SDG #6 Clean Water& Sanitation*).

Slide 2: SDG #2, Zero Hunger, slide; Embedded video link.

Step Three: Have students examine SDG #2 link: Fact Sheet & Infographics: 10 minutes

Purpose: Students will examine the SDG #2 overview links to give them more background information on its goals, targets, and indicators. Students will analyze the cause-and -effects of hunger and food insecurity. They will make these connections by writing down 10 words that are reflected in the document. Facilitate a discussion based on their conclusions from their analysis.

Slide 3: Reflect/Analyze UN SDG #2. Have students identify key information in the reading and the images to draw conclusions about the cause and effect of food insecurity on society.

Step Four: Food Systems and their Importance: 10 minutes

Purpose: Have students consider what they know about the role of "food systems" in our society and why they are important. Students will be watching the videos: <u>Why Do We Need to Change Our Food System</u>, and <u>Food</u> <u>Systems and Climate Change</u>. After watching the videos, have a discussion with students about what they learned.

Slide 4: Include a definition of food systems and links to the videos identified above.

Step Five: Exploring Food Waste: 10-15 minutes

Purpose: Students will build on their learning by exploring the challenge of food waste and what can be done to reduce its impact on societies around the world. The UN Environment Programme has an interesting and informative report (2024) on the role of food waste and why it is important to address it. Students will consider specific questions on food waste (see lesson steps), watch a short video, and engage in a large group discussion World Affairs Council – Seattle

about the issue. There is also a synthesis to the report (2 pages) that contains <u>key messages</u>. You could have students examine one or more of the different messages in pairs and then have a discussion.

Slide 5: Include the questions identified in the "lesson steps" section to introduce the concept and challenge of food waste. You can include a link to the report and to the video.

Step Six: Research Activity: Explore a Specific Context: 25-30 minute

Purpose: Students will apply what they have previously learned in the introductory activities and research a specific context (*place*) - locally or globally - in more depth. This activity will allow students to explore a different context and examine how food insecurity is impacting individuals and society. Students will also have an opportunity to utilize their research skills.

Slide 6: Provide directions for students to complete *(in pairs or small groups)* the research activity. This slide can include research questions *(you can discuss and go over them as a class)* and places for them to choose from. Invite students to choose a partner(*s*) or have them paired up or in small groups. Students will use the research notes sheet provided and be required to produce one action step that could be taken to address in this context.

Step Seven Communicating Learning through Video: 20 minutes

Purpose: Students will utilize their research notes to communicate and apply what they have learned by creating a video. This will give students an opportunity to summarize their findings, discuss a possible solution, and learn from the perspectives of other student groups.

Slide 7: Instruct students that they will be creating a short video that communicates what they have learned from their research. If students are using the <u>Flip</u> site, walk students through the procedures and give them time to record their video.

Step Eight: Sharing Video(s) with Your Peers: 30 minutes

Purpose: Students can communicate what they learned from their research by sharing their video. This will provide students with diverse perspectives to make connections between their research and others in the class. Students can explore connections, including similarities and differences, as they consider the conclusions of their classmates.

Slide 8: Provide instructions for students sharing their research.

Step Nine: Taking Action - The UN Campaign for Addressing Food Insecurity: 10-15 minutes

Purpose: This part of the lesson encourages students to act. The <u>UN Food Systems Take Action Ideas</u> allows students to consider ways to combat hunger and food insecurity. The link above is from 2021 and gives a range of ideas for students to consider. Have students explore the site and discuss ideas as a class.

Here is the <u>link</u> for the 2024 UN Food Systems Summit taking place in Rome. There is a video and interesting <u>graphics</u> highlighting the "journey of food." The graphics also connect food systems to some of the other SDGs. You could have students explore these slides or use them as part of class discussion. Overall, this activity provides an opportunity for students to connect their learning to their own lives.

Slide 9: Take Action Ideas for students to consider. You could also utilize some of the graphics at the UN link above.

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Step Ten: Summative Assessments: Time Will Vary

Purpose: There are different summative assessment options that allow students to demonstrate their learning in an innovative way. Students can choose from one of the project-based assessments identified in the appendix of this document. These projects allow students to further reflect on their understanding of SDG #2: Zero Hunger and teachers can share this work with other students.

Slide 10: Give an overview of the summative assessment opportunities (project-based learning).

Explore Further: Connecting the Local and the Global: 30 minutes

Purpose: The UN Sustainable Development Goals provide a great teaching opportunity to connect the "local" to the "global." In this context, students can explore local organizations that are working on food insecurity in Washington State and/or the Pacific Northwest. In addition, educators can teach about the important role of NGOs or non-profit organizations in addressing local and global issues.

Slide 11: Provide students with the following local organizations supporting community members facing food insecurity. Students can research one of the organizations and share what they have learned with the rest of the class. If students are interested, they could look for volunteer or internship possibilities. Here are questions to consider:

- How is their work connected to what you have learned in this lesson?
- What actions are they taking to address the issue?
- What opportunities are available to get involved/volunteer?
- What is an NGO or non-profit organization? How does their work provide opportunities for actively engaged citizenship?

Local Organizations to Explore:

- <u>Washington Gleaning & Food Recovery Organizations</u>
- Northwest Harvest (Growing Food Justice Through Collective Action
- <u>Whatcom Food Network</u>
- Washington Food Coalition
- Washington State Department of Agriculture
- N.E.W. Hunger Coalition
- <u>REACCH: Regional Approaches to Climate Change Pacific Norwest Agriculture</u>
- <u>Washington Gleaning & Food Recovery Organizations</u>
- Washington State Conservation Commission: Sustainable Farming & Fields
- Tilth Alliance: Washington Farming & Agriculture

Note: If you are using this resource for students outside of Washington State, there are many similar organizations doing work around food sustainability and food systems.

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