LESSON ONE

For Educators

SUSTAINABLE DEVELOPMENT GOAL #13, CLIMATE ACTION

13 CLIMATE ACTION



Take urgent
action to combat
climate change
and its impacts

IMAGE BY PEXELS

Lesson 1: Sustainable Development Goal #13: Climate Action

Student Handout

Module Driving Question: Lessons 1, 2, and 3

• How does human interaction with the environment affect individuals and communities in local, national, and global contexts?

Lesson Driving Questions:

- How is climate change impacting individuals and communities around the world?
- What can be done to address the causes and consequences of climate change?

Learning Targets: I Can:

- Explain the causes and impact of climate change to my peers.
- Identify and explain possible solutions to climate change to others in my class and school community.
- Consider different perspectives on climate change and develop solutions to address the issue.

Purpose:

In this lesson, you will explore the challenge of climate change and how it is impacting individuals and communities around the world. You will work with other students to identify and discuss the causes and effects of climate change. As part of your learning, you will use the online resource Jamboard or a KWL Chart to brainstorm what you know about climate change and what you would like to learn. You will watch video clips, explore a reading on climate change, and participate in small and large group discussions. You will investigate the issue of climate change in a specific place to better understand its impact on the local community. 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 climate change.

Lesson Vocabulary:

Ecosystem, sustainability, climate change, environmental justice, global warming, carbon neutral, renewable energy, extreme weather, emissions, fossil fuels, climate refugees

Lesson Steps:

- 1. **Learn** about the United Nations Sustainable Development Goals by watching **video clips**. With a partner and as a class, discuss the purpose of the goals.
- 2. Reflect and brainstorm what you know about climate change using the KWL Chart using Jamboard.
- 3. **Learn** more about climate change by reading an overview and viewing the images for SDG #13 on the **UN website**. Use the **graphic organizer** provided to identify the causes and effects of climate change.
- 4. In pairs or small groups, **research** a specific place in the world that has been impacted by climate change (see possible suggestions from your teacher). Take notes using the **graphic organizer** provided.
- 5. **Create** a **Flip video** that gives a brief overview of your research findings using this <u>link</u>. In your video, please **explain** one or more steps that could be taken to address climate change in your selected place.
- 6. **Share** your **Flip video** with the rest of the class. Then, as a class, **analyze** and **discuss** additional climate change solutions as class by exploring this link from the <u>UN Environment Program</u>.

- 7. Take action on climate change by joining the <u>UN Campaign for Individual Action</u> (ACTNOW). **Download the APP** and enroll.
- 8. **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 particular curriculum model was designed with teaching and learning strategies that could be adapted for in-person or virtual learning.

Lesson Timing: 120 (approximate)

Standards

Content	Standard
WA Social	SSS1.6-8.1: Analyze positions and evidence supporting an issue or an event
<u>Studies</u>	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.
WA World Language	1.0 Communication : Communicate effectively in more than one language in order to function in a variety of situations and for multiple purposes.
	1.1 Interpersonal Communication: Learners interact and negotiate meaning in spoken, signed, or written conversations to share information, reactions, feelings, and opinions.
	1.2 Interpretive Communication: Learners understand, interpret, and analyze what is heard, read, or viewed on a variety of topics.
	1.3 Presentational Communication: Learners present information, concepts, and ideas to inform, explain, persuade, and narrate on a variety of topics using appropriate media and adapting to various audiences of listeners, readers, or viewers.
	3.0 Connections: Connect with other disciplines and acquire information and diverse perspectives in order to use the language to function in academic and career-related situations.
	3.1 Making Connections: Learners build, reinforce, and expand their knowledge of other disciplines while using the language to develop critical thinking and to solve problems creatively.
	3.2 Acquiring Information and Diverse Perspectives: Learners access and evaluate information and diverse perspectives that are available through the language and its cultures.
C ₃ 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.g.g-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.

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Lesson Resources

For Students	For Educators	Materials
 Graphic Organizer (if not using Jamboard) Research Notes Sheet Flip Link 	Lesson One SlidesGraphic OrganizerResearch Notes Sheet	 KWL Chart (if not using Jamboard) Graphic Organizer Research Notes Sheet

Lesson Overview

In this lesson, students learn about United Nations Sustainable Development Goal #13: Climate Action. They will examine the causes and consequences of climate change and explore possible courses of action to address the issue. Students will engage in activities to reflect on previous knowledge, develop new learning, and encourage creative and critical thinking. Some of the activities in this lesson include a KWL Chart using Jamboard, a think-pair-share, a cause and effect graphic organizer, and a Flip video. These individual and collaborative learning experiences will help students deepen their understanding of climate change and its impact on communities locally and globally. Through these activities, students will communicate what they have learned about climate change and sustainability and utilize problem-solving skills to generate tangible solutions.

Teacher Preparation

<u>For Step 1</u>: Examine the United Nations website on the 17 Sustainable Development Goals. Click on <u>SDG #13</u>: <u>Climate Action</u> to learn about the specific targets for addressing the causes and consequences of climate change. Watch some of the videos that introduce the goals and examine the specific links on the page related to climate action.

<u>For Step 2</u>: Prepare an example that you can share with the students for their KWL Chart (brainstorming activity). Check to make sure that you are familiar with Jamboard or use the KWL Chart provided (see handout).

<u>For Step 3</u>: Go back to the UN link for SDG #13 and review the specific targets and indicators (goals to be achieved by 2030). Go to the "Progress & Info" tab and read about some of the progress that has been made toward some of these goals. Examine the image on the site to reflect on key data points in preparation for having students to analyze and discuss the graphic. There are also additional articles and reports on this page for additional background information.

<u>For Step 4</u>: Refer to the list of possible places that students can choose from for their research inquiry. You can decide to add other contexts that might be applicable 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.

<u>For Step 5</u>: Review the <u>Flip video site</u> and look at examples (and directions). 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.

<u>For Step 6</u>: Be ready to have students upload their Flip video for the rest of the class to see and discuss. Check out the link from the UN Environmental Program on possible climate solutions. After watching their Flip videos, students will be discussing additional climate action solutions.

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<u>For Step 7</u>: Download the <u>UN Campaign for Individual Action</u> (ACTNOW) and **enroll**. You may want to do this the week before to see how it calculates your carbon footprint.

<u>For Step 8</u>: 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: Learning about the UN Sustainable Development Goals: 10 minutes

Purpose: Students are introduced to the UN Sustainable Development Goals and why they are important to addressing local and global issues. They will watch a couple of short videos and discuss their initial reactions as a class.

Slide 1: Brief Overview of the UN Sustainable Development Goals with image

Step Two: KWL Chart using Jamboard (or actual handout): 10 minutes

Purpose: Explain to students that the first goal they will explore is on climate action. They 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 2: Climate Action SDG #13 - KWL Chart/Jamboard instructions. You can share an example of your knowledge of how changes in climate may impact individuals and communities.

Step Three: Have students examine SDG #13 link and complete the graphic organizer: 10 minutes

Purpose: Students will examine the SDG #13 overview link to give them more background information on its goals, including targets and indicators. Students will analyze the cause and effect of climate change and make these connections by completing the graphic organizer provided. This will set the context for why climate action is needed on a global scale.

Slide 3: Reflect/Analyze UN SDG #13. Have students identify key information in the reading and the images to draw conclusions about the cause and effect of climate change. Facilitate a discussion based on their conclusions from their analysis and their completed graphic organizer.

Step Four: Explore a specific context (place) using the research questions and notes sheet: 25-30 minutes

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 climate change is impacting individuals and society. Students will also have an opportunity to utilize their research skills.

Slide 4: Provide the directions for students to complete the pair (or small group) research activity. This slide includes research questions (you can discuss and go over them as a class) and possible places for them to choose from. Invite students to choose a partner(s) or you could already have students paired up or in small groups. Have students use the research notes sheet provided and will be required to come up with one action step that could be taken to address climate concerns in this context.

Step Five: Communicating Learning through a Flip Video: 15-20 minutes

Purpose: Students will utilize their research notes to communicate and apply what they have learned by creating a Flip 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 5: Instruct students that they will be creating a short video that communicates what they have learned from their research using a link called "Flip." Walk students through the procedures and give them time to record their video.

Step Six: Sharing Flip Video with Your Peers: 30 minutes

Purpose: Students have an opportunity to communicate what they have learned from their research by sharing their Flip video. This will provide students with diverse perspectives to be able 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 6: Provide instructions for students sharing their research.

Step Seven: Taking Action - The UN Campaign for Individual Action (ACTNOW): 5-7 minutes

Purpose: Part of this lesson is to encourage students to take action. The UN Campaign for Individual Action (ACTNOW) allows students to download an APP and track their own carbon footprint. This activity provides an opportunity for students to connect their learning to their own lives.

Slide 7: Provides instructions for downloading the ACTNOW APP.

If desired, here are additional teacher notes for this activity: This would be a good opportunity to discuss your survey results with a friend, peer, or student group. Next, take a look at the "Act Now" slides under "Content for You." This provides a brief overview of the campaign and why it matters. From here you can: calculate your own carbon footprint and compare it to the global total. Finally, use the "actions" tool at the bottom of the app to identify ways you are taking action on climate change. Take a week or two to monitor your actions and discuss your results with the rest of the class. Think about the following questions in your discussion: What was the easiest thing you were able to do? What was the most challenging thing you were able to do?

Step Eight: 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 #13: Climate Action and teachers can share this work with other students.

Slide 8: Give an overview of the summative assessments 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 climate-related issues 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 9: Provide students with the following local organizations that are engaged in climate action work. 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 possible 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 are the opportunities to get involved/volunteer?
- What is an NGO or non-profit organization? How does their work provide opportunities for actively engaged citizenship?

Organizations to Explore:

- Got Green
- Washington Environmental Council
- <u>EarthShare Washington</u>
- EarthGen
- Washington Foundation for the Environment
- Earth Corps
- Conservation Northwest
- U.S. Forest Service

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Translations by:

Larisa Shuvalova
Iryna Novachuk
Inna Shynshyn
Nathan Marks
Brandon Severance
Otilia Baraboi
Ileana Marin
Alexey Kuznetsov
Pedro Lopez-Chaves

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