

## Learning Outcomes

Students will:

- ✦ Explore how climate change disproportionately affects certain groups of people and consider how climate solutions can address this.
- ✦ Brainstorm adaptation and mitigation solutions for their CIC project, and assess the practicality of their ideas.

## Essential Question



- ✦ How can I use my voice and experiences to create a meaningful climate solution that helps my community and supports people who are most affected by climate change?

## Notes to Teacher



- ✦ **Lesson Preparation:** It's recommended that you complete these steps before leading the lesson with your students:
  - ✦ **Pre-cut unequal "pie pieces" for the hook activity on paper- one per student in all different sizes, some being notably smaller and bigger than others.**
  - ✦ Consider how you might guide your students to consider vulnerable populations in your local community
  - ✦ Decide on a climate change impact to model for students during the mind mapping activity
  - ✦ Print or digitally assign the lesson 3 handout
- ✦ Students will need access to the **handouts from lessons 1 & 2** during this lesson
- ✦ For this lesson, we recommend using a tool called [EJSCREEN](#), which was created by the U.S. Environmental Protection Agency (EPA). This tool helps people look at maps and data to better understand how environmental issues—like air or water pollution—affect different communities, especially those that may be more vulnerable.
  - ✦ Unfortunately, this tool is currently unavailable to the public due to decisions made by the current federal administration. We've chosen to keep the link in the curriculum in case it becomes available again in the future.
  - ✦ In the meantime, CIC staff are more than happy to help you find local tools or resources to support your students in learning about environmental justice in your community. Feel free to reach out—we're here to help!



### ◆ [Climate Solutions & My Entry Point](#)

## Classroom Discussion and Activities



- ◆ **Hook: Unequal Pies** (10 minutes)
  - ◇ As students enter the classroom, hand each student a piece of “pie” (cut paper). Ensure that there is one per student and that pieces are all different sizes, some being notably smaller and bigger than others.
  - ◇ Explain to students that they will be earning a pie party and the piece they received today is the size piece they will get. Ask them to compare pieces with other students.
  - ◇ Then ask:
    - ◆ *How do you feel about your piece of pie?*
    - ◆ *Do you think the pies are cut fairly? Why or why not?*
    - ◆ *If you and your friends were sharing this pie, how would it feel if one person got a much bigger slice than everyone else?*
    - ◆ *What if someone only got a tiny sliver—would that feel fair? Why or why not?*
    - ◆ *Is it always fair to split things equally? Can you think of a time when someone might need more than an equal share?*
  - ◇ Draw or show two pictures of pies:
    - ◆ One pie divided into equal slices — label it “**Proportionate**”
    - ◆ One pie divided into unequal slices — label it “**Disproportionate**”
  - ◇ Connect the pies to climate change: *When something is proportionate, everyone gets the same amount. But when it’s disproportionate, some people get more and some get less. Climate change affects the whole world, but it doesn’t affect everyone the same. Some people and places are hurt more than others while some people and places have more protection against climate change. This is called a disproportionate impact.*
- ◆ **Who is Impacted Most? Brainstorm** (10 minutes)
  - ◇ Ask students: *We all feel some impacts from climate change, like hotter days or more storms. But who do you think might feel more of these impacts than others?*
  - ◇ Have students work in small groups to make a list of people or communities they think might be affected more than others.
  - ◇ You can choose to focus the discussion on your state, city, or region if helpful.
  - ◇ If students get stuck, give them these prompts:
    - ◆ Think about where people live (near water, forests, or factories)
    - ◆ Think about who might not have a lot of money or resources
    - ◆ Think about age, health, or ability to move during emergencies
  - ◇ Come together as a class and have groups take turns sharing their ideas. Create a big list together on the board or chart paper. Some examples might include:
    - ◆ *People who live in wildfire-prone areas or flood zones*
    - ◆ *People living near polluting places like factories, highways, or airports*
    - ◆ *People who are older or have health conditions and can’t evacuate easily*

- ◆ *People who don't have homes or air conditioning during extreme heat*
  - ◆ *Kids and young people who will live with climate change longer*
  - ◆ *People in cities that get even hotter because of too much pavement (urban heat islands)*
- ◆ **Connecting to Our Community** (15 minutes)
- ◇ Ask students: *Now that we understand that climate change doesn't affect everyone the same way—some people feel it much more than others—let's bring that idea closer to home. When we consider the impacts of climate change in our community, who is feeling those impacts most?*
  - ◇ Students return to the worksheet from lesson 2: [Climate Change in My Community](#). For each climate change impact they identified, they now need to consider who is most affected and complete the final column of the table.
- ◆ **Group Brainstorming: Climate Change Solutions Flower** (25 minutes)
- ◇ Guide students through the process of creating a mind map for brainstorming possible solutions to their climate change impact. Use the “**Climate Change Solutions Flower**” graphic organizer on the [Climate Solutions & My Entry Point](#) worksheet or have students create their own. It is recommended that you create a teacher-led example on the board first or alongside students as they work.
  - ◇ Pick one **climate change impact** that you care about and are curious to explore in your CIC project.
    - ◆ *This should be an impact that they personally connect with and/or notice in their community. Use the handouts from lessons 1 and 2 ([Mind Mapping](#) and [Climate Change in My Community](#)) along with the ideas brainstormed as a class to help.*
    - ◆ *Note: If students have a solution in mind already, they can adapt the mind map to start from that point instead.*
    - ◆ Write this impact in the **center circle** of the solutions flower graphic organizer.
      - Example: Solutions to extreme heat
  - ◇ Group students based on their chosen impact to complete the petals as a group. If the class is focusing on one shared impact, group students for the purposes of this activity.
    - ◆ **Petal 1: Who Is Affected Most?**
      - Who feels this impact the most?
      - What makes them more vulnerable?
      - How is their life changed by this issue?
    - ◆ **Petal 2: What Causes This Problem?**
      - What human actions or systems make this worse?
      - Where do you see these causes in your life or community?
    - ◆ **Petal 3: What Are People Already Doing?**
      - Are there real-world solutions already being used?
      - Who's leading these changes—communities, scientists, governments?
      - *\*Students will explore existing solutions in the next lesson, so this does not need to be completed yet.*
    - ◆ **Petal 4: What Can We Do Locally?**
      - What could people in our school or town do about it?
      - How could we protect those most affected?
    - ◆ **Petal 5: My Ideas for Action**
      - What could you do with your voice or talents to help?
      - How could you use your unique skills and talents to connect with this problem?

- ◆ **Wrap Up: My CIC Entry Point** (5 minutes)
  - ◇ Students will now put it all together to create their entry point! Use the sentence frames on the [My Entry Point](#) worksheet or have students modify this to create their own entry point.
    - ◆ *Students should use the brainstorming they just did and the worksheets from lessons 1 & 2 to help them with this process.*
    - ◆ *For those doing a class-wide entry point, this activity can be completed as a class.*
    - ◆ *Note: If students are struggling to see the connection between their interests and how they might take action to address climate change, consider showing or using this [entry point graphic](#) created by a former CIC participant.*
    - ◆ *Entry point examples:*
      - ◇ *I will use my passion for cross country skiing to tell a story that will address the decreasing snowpack in the midwest because warmer winters are creating less recreation opportunities for people like me. I will do this by going to the local ski areas near my house and interviewing the people who run them to learn about solutions.*
      - ◇ *I will use my skill of watercolor painting to tell a story that will address the threats to grizzly bear habitat from habitat loss and ecosystem changes because grizzly bears are currently a threatened species in the US. I will do this by creating and painting designs for wildlife bridges or other ways to protect grizzly bear habitat.*
- ◆ **Optional Videos for Further Exploration about Disproportionate Impacts of Climate Change:**
  - ◇ [Climate change is impacting coffee growers](#) (4:13). This video tells the story of the economic impacts climate change has on communities.
  - ◇ [Indigenous activists on tackling the climate crisis](#) (5:00) Indigenous perspectives take climate justice and extend them beyond the human realm, focusing on the interconnectedness of all beings.
  - ◇ [24 Hours of Reality: "Earthrise"](#) (4:29) by Amanda Gorman. A call to action for youth to engage with the climate crisis.

## Alignment to Standards



- ◆ [MS ESS-3-2: Earth and Human Activity](#) Analyze and interpret data on natural hazards to forecast future catastrophic events and inform the development of technologies to mitigate their effects
- ◆ [CCSS.ELA-Literacy.CCRA.SL.2](#) Integrate and evaluate information presented in diverse media and formats, including visually, quantitatively, and orally.
- ◆ [CCSS.ELA-LITERACY.CCRA.L](#) Acquire and use accurately a range of general academic and domain-specific words and phrases sufficient for reading, writing, speaking, and listening at the college and career readiness level; demonstrate independence in gathering vocabulary knowledge when encountering an unknown term important to comprehension or expression.