



# HOW CLIMATE CHANGE IMPACTS HUMAN QUALITY OF LIFE

Take a closer look at how climate change can impact our day-to-day lives.

Grade Level: 6-12 | Duration: 1-2 class periods

## Students Will Be Able To:

- Identify impacts of climate change on different communities
- Analyze how climate change affects different communities disproportionately
- Develop solution-oriented thinking and propose actions

## Materials Needed:

- Discussion cards
- Extreme Weather PSA worksheet

## In the Teachers Guide

- Climate Change Impacts on Human Quality of Life
- Disproportionate Impact on Communities
- Urban Heat Islands and Extreme Weather Events
- Mitigation and Adaptation Strategies

## Exploring Climate Change

LESSON  
5



## RESOURCES

### Articles

- [Climate Change Is Pushing Pacific Northwest Farmers To Protect Crops From Extreme Heat](#)
- [How Extreme Heat Puts Pollinators—and Crops—at Risk](#)
- [Climate Change Impacts on Agriculture and Food Supply](#)
- [Agriculture and Rural Communities](#)
- [Climate Change Impacts on the Built Environment](#)
- [Learn About Heat Islands](#)
- [Where Do We Need Shade? Mapping Urban Heat Islands in Richmond, Virginia](#)
- [Extreme Heat: Beat the Heat!](#)
- [Climate Equity](#)

### Videos

- [Climate Change's Role in Extreme Weather Around the World](#)
- [How To Build an Equitable and Just Climate Future](#)

# HOW CLIMATE CHANGE IMPACTS HUMAN QUALITY OF LIFE

Take a closer look at how climate change can impact our day-to-day lives.

## 1 ENGAGE:

1. Discuss the essential needs of humans for survival and well-being.
2. Prompt students to name fundamental necessities such as food, clean air and water, shelter, safety, employment, community, and cultural practices.
3. Explain that climate change can significantly impact each of these aspects, affecting people's quality of life.

## 2 EXPLORE:

1. Introduce agriculture as a case study to explore the impacts of climate change.
2. Have students read the article "Climate Change Is Pushing Pacific Northwest Farmers To Protect Crops From Extreme Heat" and discuss the effects of climate change on agriculture.
3. Similarly, discuss the impact of climate change on pollinators by reading "How Extreme Heat Puts Pollinators—and Crops—at Risk" and exploring the importance of pollinators for food production.

## 3 EXPLAIN:

1. After students have an understanding of how climate change is impacting agriculture, ask them to consider how it might be having an impact on other areas of human life, for example, our infrastructure (buildings, roads, bridges, etc.).
2. Ask students to identify elements of the human-built environment and explain their significance.
3. Introduce the concept of urban heat islands and their effects on cities.
4. Have students read "Where Do We Need Shade? Mapping Urban Heat Islands in Richmond, Virginia" and discuss the causes and consequences of urban heat islands, as well as potential adaptive actions.



Use the discussion cards to further conversations.

## 4 ELABORATE:

1. Divide students into groups and assign each group a recent extreme weather event to research.
2. Instruct students to create a public service announcement (PSA) video that addresses the extreme weather event, the role of climate change, impacts on human quality of life, and mitigation/preparation strategies.
3. Encourage students to incorporate diverse perspectives, including the disproportionate impact on low-income and BIPOC communities.



Use the Extreme Weather PSA worksheet to guide PSA creation.

## 5 EVALUATE:

1. Have students think about how climate change affects low-income and BIPOC communities differently. Remind them this can happen in many ways, including food security, infrastructure, transportation, cultural heritage, and even extreme weather events.
2. Have students share what they have learned—this can be through a written summary, essay, video summary, or verbally.
3. Students should provide real-world examples and propose actions to address these impacts.

## CLOSURE OR EXIT TICKET:

In a few sentences, reflect on how this lesson deepened your understanding of climate change's impact on human quality of life. Identify one aspect that surprised you or that you found particularly concerning.

Next, choose one aspect of human well-being discussed in class (e.g., food security, community resilience) and briefly explain how climate change affects it. Then, propose one small action you can take in your daily life to address this impact.

# HOW CLIMATE CHANGE IMPACTS HUMAN QUALITY OF LIFE

**Discussion Cards:** Use these questions to prompt discussions and encourage students to think critically about climate change and its implications.



How do you think climate change affects the availability and quality of food?



In what ways might climate change impact the livelihoods of farmers and agricultural workers?



Why are pollinators important for agriculture and food production?



How can climate change affect the populations of pollinators like bees and butterflies?



What steps can be taken to address the challenges faced by farmers and pollinators due to climate change?



What is an urban heat island and how does it form?



Why are some areas within a city hotter than others?



What are some of the consequences of urban heat islands for people living in cities?

# HOW CLIMATE CHANGE IMPACTS HUMAN QUALITY OF LIFE

**Discussion Cards:** Use these questions to prompt discussions and encourage students to think critically about climate change and its implications.



How might communities mitigate the effects of urban heat islands?



What role does infrastructure play in determining a community's resilience to extreme weather events?



Why do you think certain populations are more vulnerable to the impacts of climate change?



How can communities prepare for and adapt to the impacts of extreme weather events like hurricanes?



What impacts does climate change have on varying health outcomes for different populations?



How might disruptions to ecosystem services impact human communities?



How can individuals contribute to efforts to address climate change and protect ecosystems?



Why is it important to include the perspectives of marginalized communities when discussing climate change impacts and solutions?

# EXTREME WEATHER PSA WORKSHEET

Learn from an extreme weather event to create a PSA for your community.

Name: \_\_\_\_\_

Date: \_\_\_\_\_

## Describe the Event

Extreme Weather Event: \_\_\_\_\_

Event details: \_\_\_\_\_

Location: \_\_\_\_\_ Date: \_\_\_\_\_

Type of event (e.g., hurricane, wildfire, flood): \_\_\_\_\_

Significant impacts: \_\_\_\_\_

## Climate Change Role

How climate change contributed: \_\_\_\_\_

Evidence or factors: \_\_\_\_\_

## Human Impacts

Effects on human communities: \_\_\_\_\_

Considerations of health, safety, livelihoods, resources, etc.: \_\_\_\_\_

## How To Prepare

Strategies for resilience: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Short-term emergency response: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Long-term resilience-building measures: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

## Other Ideas We Have for Our PSA: