



THE IMPACTS OF CLIMATE CHANGE ON HUMAN HEALTH

Explore how climate change can affect human health.

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

Students Will Be Able To:

- Explain the connection between climate change and human health
- Identify health hazards related to climate change
- Analyze vulnerability factors contributing to climate change impacts
- Illustrate the complex interactions between climate and human health

Materials Needed:

- Whiteboard, chalkboard, or digital tool (e.g., Jamboard)
- Chart paper or wall space for visual model creation
- Discussion cards
- Cause and Effect: Understanding the Science of Climate Change and Human Health worksheet

In the Teachers Guide

- | | | |
|-------------------------------|-----------------------------------|------------------------|
| • Identifying Health Hazards | • Climate Change and Human Health | • Environmental Hazard |
| • Understanding Vulnerability | • Environmental Condition | • Exposure Pathway |
| • Climate Driver | | |



RESOURCES

Articles

- [Mold, Asthma, PTSD: A Hotter Climate Is Terrible for Kids](#)
- [Understanding the Connections Between Climate Change and Human Health](#)
- [A Student Exploration of the Impacts of Climate Change on Human Health in the United States](#)
- [The Impacts of Climate Change on Human Health in the United States: A Scientific Assessment](#)
- [Climate Effects on Health](#)
- [Climate Change and Human Health](#)
- [Climate Change and Human Health: Who's Most at Risk?](#)

Videos

- [The Link Between Childhood Asthma and Traffic Pollution](#)
- [How Climate Affects Community Health](#)

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1 ENGAGE:

1. Begin by having students brainstorm potential health impacts related to climate change. Make the tie to health hazards.
2. Have students group health hazards into several categories that can include: severe weather, air pollution, pests, water quality, food access, allergens, nutrition, etc.
3. Record categories and student ideas for reference later in the lesson.

4 ELABORATE:

1. Divide students into three groups and assign them key message 1, 2, or 3 of The Impacts of Climate Change on Human Health.
2. Have students complete the visual cause-and-effect template in groups.
3. Combine models into one large visual model, noting connections and overlaps.
4. Analyze any overlap and discuss where one environmental condition influences others.



Use the Cause and Effect: Understanding the Science of Climate Change and Human Health worksheet to complete this activity.

2 EXPLORE:

1. Read the article "Mold, Asthma, PTSD: A Hotter Climate Is Terrible for Kids" and watch the suggested videos. Compare the impacts these resources address with students' hypotheses.
2. Divide students into groups to record factors contributing to vulnerability to climate change impacts. Students can use the resource articles for their research, or you can encourage them to find their own.
3. Have students share their findings with the rest of the class.



Use the discussion cards to further conversations.

5 EVALUATE:

1. Have students choose a climate-related health issue that is important to them.
2. Students should create an infographic or 1-minute speech highlighting why this health issue is important to them. Encourage students to use facts to back up their explanations.
3. Have students share their infographics or speeches with the class.

3 EXPLAIN:

1. Define and explain the terms: climate driver, environmental condition, environmental hazard, and exposure pathway.
2. Help students understand how some population groups are more vulnerable to the effects of climate change.



Reference the worksheet Cause and Effect: Understanding the Science of Climate Change and Human Health.

CLOSURE OR EXIT TICKET:

Review the article "Climate Effects on Health" (be sure to scroll through all the topics). Think about these key questions:

- How did your brainstorming at the beginning of class compare to this information?
- How does climate change impact vulnerable populations differently?
- Explain the importance of understanding the connection between climate change and human health.

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



What health hazards can result from climate change?



How does climate change affect children's health differently than adults?



What makes certain populations more vulnerable to climate change?



Why is it important to understand the link between climate change and health?



How do extreme weather events impact communities?



What are the health effects of increased air pollution?



How does water quality impact human health?



How does climate change worsen food insecurity?

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



Why are diseases like malaria becoming more common?



What can communities do to mitigate climate-related health risks?



How does climate change impact mental health?



How can education help reduce vulnerability to climate change?



How can governments address climate-related health risks?



How can we ensure vulnerable groups are included in climate strategies?



What actions can individuals take to reduce their carbon footprint?



How can we empower youth to take action on climate change?

CAUSE AND EFFECT: UNDERSTANDING THE SCIENCE OF CLIMATE CHANGE AND HUMAN HEALTH

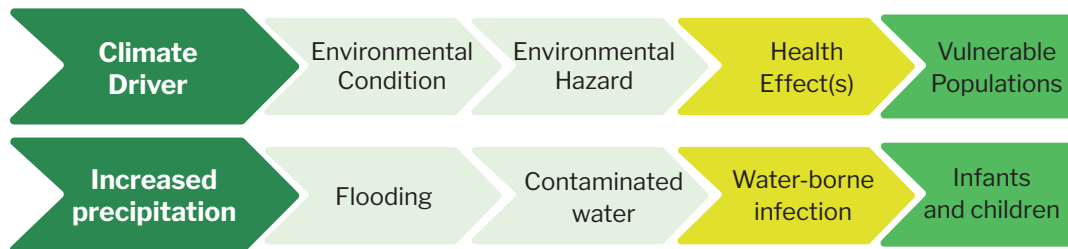
Name: _____

Date: _____

Directions: Work together to construct a visual model illustrating the health outcomes arising from climate change. Follow the steps below to complete your task:

1. Read your assigned chapter carefully, focusing on climate and health impacts.
2. Use the cause-and-effect template to summarize the information. Begin by identifying hazards, then work backward to identify the environmental conditions and climate drivers responsible.

Example:



Your Template

