



HOW CLIMATE CHANGE AFFECTS DIFFERENT REGIONS OF THE UNITED STATES

Explore how climate change impacts various U.S. regions.

Exploring Climate Change

LESSON
7



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

Students Will Be Able To:

- Identify regional climate change impacts
- Analyze factors contributing to regional climate change
- Discuss adaptation and mitigation strategies to address climate change

Materials Needed:

- Discussion cards
- Partner Research Document worksheet

In the Teachers Guide

- Regional Variation in Climate Change Impacts
- Local Mitigation and Action
- Drivers and Impacts of Climate Change

RESOURCES

Articles

- [This Is What's at Risk From Climate Change in Alaska](#)
- [Climate Change Yields Uncertain Future for Great Lakes Water Levels](#)
- [Fading Winters, Hotter Summers Make the Northeast America's Fastest Warming Region](#)
- ["Nowhere Is Safe": Heat Shatters Vision of Pacific North-West as Climate Refuge](#)
- [Why Seas are Rising Faster on the Southeast Coast](#)

- [The Southwest's Drought and Fires Are a Window to Our Climate Change Future](#)
- [How Is the Climate Crisis Affecting the Great Plains?](#)
- [Climate Change Urban Impacts](#)

Videos

- [Photo Evidence: Glacier National Park Is Melting Away](#)
- [How the Climate Crisis Will Force a Massive American Migration](#)
- [What is Environmental Justice?](#)

Created in partnership with scientists and educators.

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Explore how climate change impacts various U.S. regions.

1 ENGAGE:

1. Introduce the topic of regional climate change issues across the United States by watching the video "Photo Evidence: Glacier National Park is Melting Away".
2. Explain that this lesson will explore climate change impacts across different regions of the United States. Ask students essential questions:
 - a. How does climate change and its impacts vary across the United States?
 - b. What are the issues and impacts presented by climate change in our region?

2 EXPLORE:

1. Partner students and assign each pair one of the U.S. region-specific articles on climate change listed under Resources.
2. Have students complete the Partner Research Document about their assigned region.
3. Reconvene for a group discussion, asking:
 - a. What were the notable climate change indicators and impacts for each region?
 - b. Which populations are most impacted by climate change in these different regions?
 - c. Why do you think climate change affects regions differently?

3 EXPLAIN:

1. Show the video "How the Climate Crisis Will Force a Massive American Migration."
2. Talk to students about how U.S. regions are affected differently due to certain factors such as proximity to bodies of water, latitude, and elevation. Provide an overview on topics like:
 - a. Coastal vs. inland regions
 - b. Droughts and wildfires
 - c. Sea level rise and flooding
 - d. Mountain regions and river flooding
 - e. Cities and air pollution
 - f. Communities and water access



Reference the Teachers Guide for more tips.

4 ELABORATE:

1. Use the discussion cards to involve students in deeper conversation. Make a game of it. Take all the discussion cards and put them in a bowl, sack, or container.
2. Draw a card and say the question out loud, then set a 1-minute timer. Have students give either one-word or one-sentence answers to the question.
3. Try to get as many responses as you can in 1 minute, then draw another question. Another way you can use the discussion cards is to pose the questions to prompt friendly debates, where students take opposing viewpoints, giving each student 1 minute to discuss.

5 EVALUATE:

1. Have students select a climate change issue that was discussed earlier as a class and write a letter to a local government official or local organization doing work around this issue.
 - a. Describe the issue, its local impact, and why it needs to be addressed.
 - b. Propose personal steps to address it.
 - c. Propose 2 to 3 steps you would like to see the official or organization take to address it.

CLOSURE OR EXIT TICKET:

Think about these key questions:

1. Reflect on your group presentation topic. What was one key takeaway or insight you gained from researching and presenting on this topic?
2. How do you plan to apply what you have learned about regional climate change impacts to your daily life or future actions?

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



How do climate change impacts vary across different regions of the United States?



What are some of the most notable climate change indicators and impacts?



Why do you think climate change affects different regions of the United States differently?



What are some potential reasons for inland regions warming faster than coastal regions?



How are areas at high latitudes, like Alaska, being impacted by climate change?



How is climate change affecting people and the built (man-made) environment in your assigned region?



What are the primary health impacts of climate change in your assigned region?



What actions are people in your assigned region taking to mitigate or adapt to climate change and its impacts?

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



How can rising sea levels impact coastal regions differently?



In what ways are warmer temperatures affecting river flooding in mountain regions?



Which adaptation or mitigation strategies discussed in the lesson do you think are most effective?



How can individuals contribute to addressing climate change issues in their local communities?



How can families and communities work together to identify and implement solutions to climate change impacts?



How do you think climate change might affect the animals and plants in your local area?



Name some organizations doing climate justice work in your community. What is the focus of their work?



In what ways are low-income Black and Indigenous communities impacted by climate change?

PARTNER RESEARCH DOCUMENT

Partner Names: _____

Date: _____

What is your assigned region?



List three to five notable climate change indicators and impacts for your region:

Climate Change Indicator	Possible Impact