

Understanding and Combating Climate Change

Opening Activity: Headlines

With a partner, share and discuss climate-related news stories you've heard recently. If you can't think of one, you may discuss any of the headlines shared on the screen.

Notes:

The Big Question

How does climate change affect my life and community, and how can I actively participate in its solution?

My Climate Goals

When you complete this lesson, you'll be able to

1. Identify and explain the consequences of climate change
2. Identify at least three ways your community can address climate change
3. Discuss how you can help combat climate change today and in the future.

Notes:

Boston's Climate Resilience

Instructions

Boston's Climate Action Plan is divided into three main categories: buildings, transportation, and everything else.

Choose one strategy from your assigned category below. Discuss and answer the questions on the following page using the prompts to guide your discussion. Prepare to present your strategy and its benefits for climate resilience to the class.

Category Strategies

Group A: Buildings

1. **Energy retrofits:** Upgrading older buildings to improve energy efficiency (e.g., better insulation, modern windows, or energy-efficient lighting)
2. **Green building standards:** Building new structures using eco-friendly designs and materials to reduce pollution
3. **Electrification:** Switching from gas or oil heating to electric systems using clean, renewable energy sources

Group B: Transportation

1. **Expanding public transit:** Improving and expanding bus and train networks to reduce the use of individual cars
2. **Promoting electric vehicles (EVs):** Providing incentives, charging stations, and public awareness to make buying and driving EVs easier
3. **Bike lane infrastructure:** Building more bike lanes and safe routes for cyclists to promote zero-emission commuting

Group C: Everything Else

1. **Community solar programs:** Allowing multiple homes and businesses to share solar energy from one main solar setup, even if they can't put panels on their buildings
2. **Waste diversion:** Reducing trash by recycling, composting, and finding ways to create less waste
3. **Tree planting for urban cooling:** Planting more trees in cities to cool the air and improve the air quality

Discussion Prompts

What is climate resilience? Using the prompts below, explore how your chosen strategy can benefit Boston's communities now and in the future.

What is your strategy?

Describe the strategy in your own words:

How does this strategy help cut down on pollution?

What are the benefits for Boston's communities?

What challenges could make this strategy hard to implement?

How can people help support this strategy?

Based on what you've explored in this lesson, how do you define climate resilience?

Notes:

Lesson Key Points

- Climate change is a long-term shift in global or regional climate patterns, primarily caused by humans.
- Greenhouse gases in the atmosphere trap heat, making the planet warmer.
- Climate change can lead to health risks from extreme heat and worsening air quality, extreme weather, and sea-level rise.
- I can take action to slow climate change.

Additional key points:

Closing Activity

What is one change you can make immediately that will slow climate change?

What are three ways your community can help address climate change?

Are there any careers of interest that you heard about in this lesson?