

ScienceNews

Activity Guide for Students: Curbing Climate Change

Directions: Human activities are raising levels of greenhouse gases, which are changing the world and making it warmer. Luckily, there are technologies and strategies that can be used to mitigate the effects of greenhouse gases by either producing less carbon dioxide or by removing carbon from the atmosphere.

In this activity, you will read "[It's possible to reach net-zero carbon emissions. Here's how](#)" from *Science News* online. A version of this article titled "The Road to Net-Zero" was printed by *Science News* on January 28, 2023. You will also complete the [comprehension](#) and [discussion](#) units from the Science News Learning [Educator Guide: The Road to Net-Zero](#).

After you have some background on this subject, you and your classmates will research different technologies and strategies that either reduce carbon dioxide emissions or remove carbon dioxide from the atmosphere and prepare a presentation.

The research project

Please use the following questions to guide your research project. The information can be used in your presentation.

1. Explain how the method you chose to research works.
2. What are the advantages of using this method?
3. What are the disadvantages of using this method?
4. How effective is this method in reducing carbon dioxide emissions or removing carbon dioxide from the atmosphere?
5. How long does it take to apply this technology or implement this strategy?

6. How expensive is it to use this method?

7. Can this method be added to current infrastructure, or will entirely new infrastructure need to be built for implementation?

Presentation design

After you finish your research, you will need to create your presentation. Include information from your worksheet and any visuals that you think are helpful. Add a slide that includes all your sources and follow any additional directions your teacher provides. Practice your presentation to make sure that it takes three minutes to deliver.

Presentations

Use the presentations chart provided by your teacher to write notes about your classmates' presentations. At the end of the presentations, you will use the chart to identify the method that you think should be prioritized to move toward net-zero emissions. Then you will write a one-paragraph justification for your choice. That justification could focus on carbon emissions, cost of production/implementation, compatibility with current infrastructure or any other factor you consider important.

1. Which technology or strategy should be prioritized in achieving net-zero carbon emissions? Why? Justify your answer with at least 150 words.

