

Student Comprehension Worksheet

Directions: Read the online *Science News* article "[It's possible to reach net-zero carbon emissions. Here's how.](#)" which explores various solutions to decrease greenhouse gas emissions, and answer the following questions as directed by your teacher. A version of the article, "The road to net-zero," appears in the January 28, 2023 issue of *Science News*.

Introduction

1. What does the phrase "net-zero emissions" mean?
2. What problem do scientists hope net-zero emissions will help solve?

Section 1: The current state of CO₂

3. What are the greenhouse gases that researchers want to remove from Earth's atmosphere? What are sources of these greenhouse gases, and how much did each greenhouse gas contribute to total U.S. emissions in 2020?
4. How has the United States contributed to climate change? What is the United States' goal for reaching net-zero emissions?

Section 2: Make a lot more clean electricity

5. In your own words, summarize the article section's main point.
6. How could the United States use the solution to reach its goal of reaching net-zero emissions by 2050? What are some challenges to boosting the production of clean electricity?

Section 3: Get efficient and go electric

7. In your own words, summarize the article section's main point.

8. How could the United States use the solution to reach its goal of reaching net-zero emissions by 2050?

Section 4: Make clean fuels

9. In your own words, summarize the article section's main point.

10. How could the United States use the solution to reach its goal of reaching net-zero emissions by 2050?

Section 5: Rein in other greenhouse gas emissions

11. In your own words, summarize the article section's main point.

12. How could the United States use the solution to reach its goal of reaching net-zero emissions by 2050?

Section 6: Sop up as much CO₂ as possible

13. In your own words, summarize the article section's main point.

14. How could the United States use the solution to reach its goal of reaching net-zero emissions by 2050?

Section 7: No time to waste

15. In your own words, summarize the article section's main point.

16. Is the United States' goal of reaching net-zero emissions by 2050 realistic? Explain based on evidence given in the article.