



**PLANIT**  
TEACHERS

# Exploring Global Warming and the Great Barrier Reef: A Classroom Activity Sheet

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## Introduction

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Welcome to this classroom activity sheet on global warming and the Great Barrier Reef! This sheet is designed to help you learn about the importance of reducing our carbon footprint and mitigating the effects of global warming on the environment. You will have the opportunity to complete questions, activities, and projects that will help you understand the key concepts and ideas.

## Multiple Choice Questions

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1. What is the main cause of global warming?

- a) Burning fossil fuels
- b) Deforestation
- c) Pollution
- d) All of the above

Answer: d) All of the above

2. What is the Great Barrier Reef?

- a) A coral reef system
- b) A type of fish
- c) A type of plant
- d) A type of rock

Answer: a) A coral reef system

3. What is the carbon cycle?

- a) The process by which carbon is exchanged between the atmosphere, oceans, land, and living things
- b) The process by which water is exchanged between the atmosphere, oceans, land, and living things
- c) The process by which energy is exchanged between the atmosphere, oceans, land, and living things
- d) The process by which nutrients are exchanged between the atmosphere, oceans, land, and living things

Answer: a) The process by which carbon is exchanged between the atmosphere, oceans, land, and living things

## Short Answer Questions

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1. What are some ways that human activities contribute to global warming?

2. What are some effects of global warming on the Great Barrier Reef?

3. What is the importance of reducing our carbon footprint?

## Essay Question

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Choose one of the following essay questions and write a short essay response:

1. What are some ways that individuals can reduce their carbon footprint and mitigate the effects of global warming?
2. What are some effects of global warming on the Great Barrier Reef and how can we help to protect it?

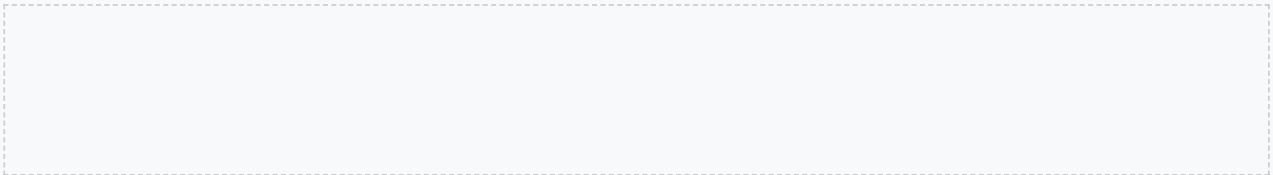
## Design a Sustainable Community

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Imagine you are a city planner and you have been tasked with designing a sustainable community. The community should be designed to reduce its carbon footprint and mitigate the effects of global warming. Consider the following factors:

- Energy sources
- Transportation
- Waste management
- Building design

Draw a diagram of your community and include a short description of how it will reduce its carbon footprint.



## Case Study: The Great Barrier Reef

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The Great Barrier Reef is one of the most biologically diverse ecosystems on the planet. However, it is facing significant threats due to global warming. Rising sea temperatures are causing coral bleaching, which can lead to the death of the coral and the loss of biodiversity.

1. What are some effects of global warming on the Great Barrier Reef?

2. What can we do to help protect the Great Barrier Reef?

## Create a Public Service Announcement

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Create a public service announcement (PSA) about the importance of reducing our carbon footprint and mitigating the effects of global warming. Consider the following:

- What is the main message of your PSA?
- Who is your target audience?
- What visuals and audio will you use to convey your message?

## Carbon Footprint Calculator

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Work in groups to calculate your carbon footprint using an online carbon footprint calculator. Consider the following:

- What are some ways that you can reduce your carbon footprint?
- What are some challenges to reducing your carbon footprint?



## Reflection

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Reflect on what you have learned about global warming and the Great Barrier Reef. Consider the following:

1. What did you learn about the causes and effects of global warming?

2. What did you learn about the importance of reducing our carbon footprint?

3. What can you do to help mitigate the effects of global warming?

## Additional Resources

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### Online Resources:

- National Geographic Kids: [www.natgeokids.com](http://www.natgeokids.com)
- NASA Climate Kids: [www.climatekids.nasa.gov](http://www.climatekids.nasa.gov)

### Books:

- "The Magic School Bus Inside a Hurricane" by Joanna Cole and Bruce Degen
- "The Great Barrier Reef" by Gail Gibbons

## Conclusion

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Congratulations! You have completed this classroom activity sheet on global warming and the Great Barrier Reef. Remember that reducing our carbon footprint and mitigating the effects of global warming is everyone's responsibility. What will you do to help make a difference?