



PLANIT
TEACHERS

Global Warming and the Great Barrier Reef: A Homework Sheet

Student Name: _____

Class: _____

Due Date: _____

Introduction

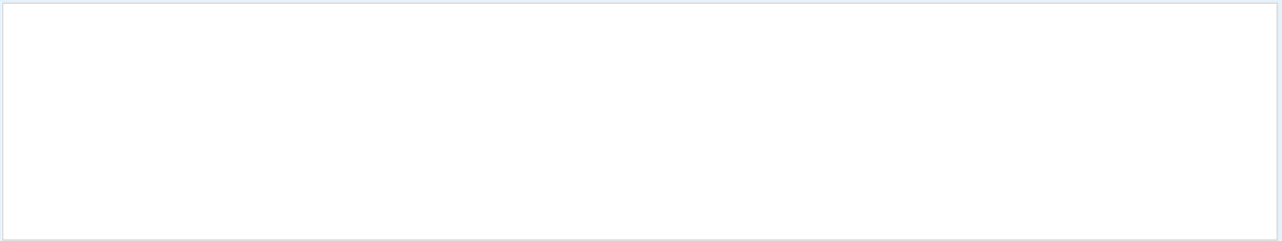
Welcome to this homework sheet on global warming and its impact on the Great Barrier Reef. This sheet is designed to help you understand the complex relationships between human activities, the environment, and the Earth's systems. You will learn about the carbon cycle, the effects of global warming on the Great Barrier Reef, and the importance of reducing carbon emissions.

Section 1: The Carbon Cycle

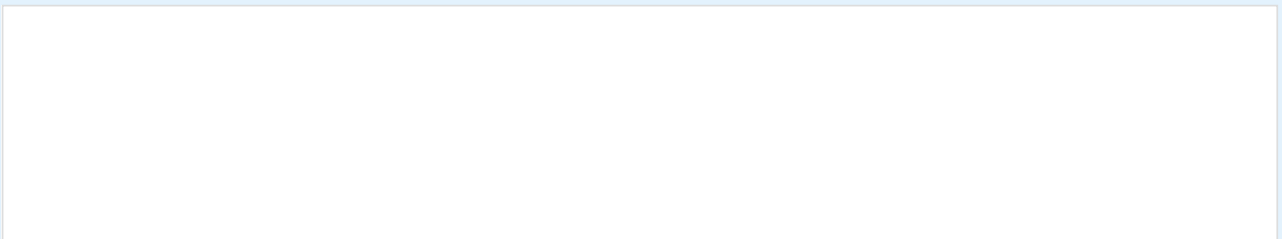
What is the carbon cycle, and how does it relate to global warming?

The carbon cycle refers to the process by which carbon is exchanged between the atmosphere, oceans, land, and living things. Human activities, such as burning fossil fuels and deforestation, have disrupted the carbon cycle, leading to an increase in atmospheric carbon dioxide and global warming.

Draw a diagram of the carbon cycle, including the processes of photosynthesis, respiration, decomposition, and fossil fuel combustion.



How do human activities, such as burning fossil fuels and deforestation, affect the carbon cycle?



Section 2: The Great Barrier Reef

What is the Great Barrier Reef, and why is it important?

The Great Barrier Reef is the world's largest coral reef system, located off the coast of Australia. It is home to a diverse array of marine life and provides important ecosystem services, including shoreline protection and water filtration.

How does global warming affect the Great Barrier Reef, including coral bleaching and sea level rise?



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

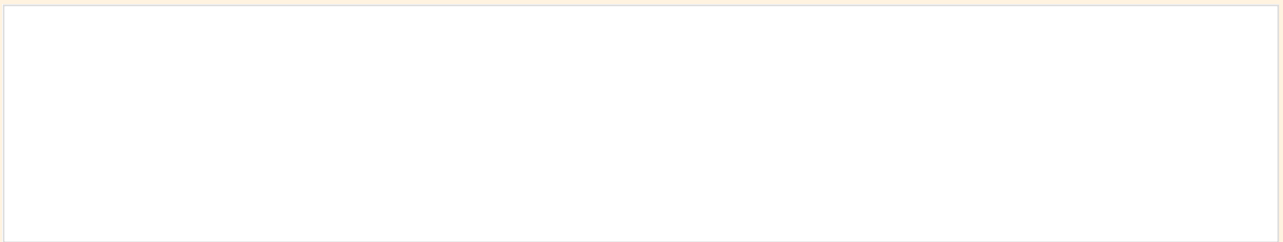


Section 3: Reducing Carbon Emissions

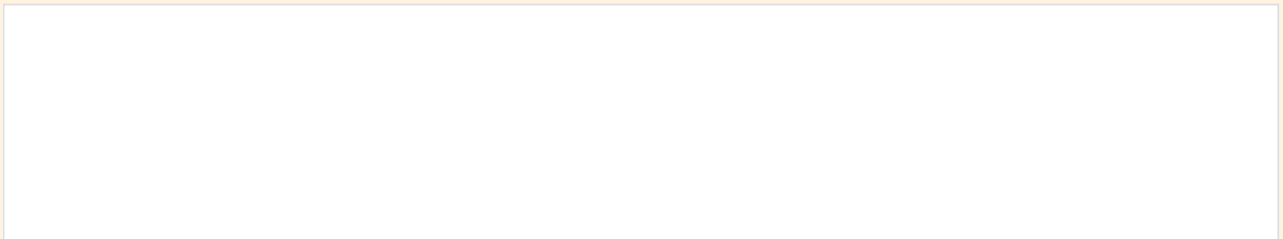
What are some ways to reduce carbon emissions, such as using public transportation, carpooling, or reducing energy consumption?



Calculate your carbon footprint using an online calculator, and propose ways to reduce it.



Design a poster or infographic to raise awareness about the importance of reducing carbon emissions.



Section 4: Case Study

Read the following case study:

"The Great Barrier Reef is facing a major threat from climate change. Rising sea temperatures are causing coral bleaching, and sea level rise is threatening the coastal communities that depend on the reef. What can be done to mitigate the effects of climate change on the Great Barrier Reef?"

What are the main issues facing the Great Barrier Reef, and how can they be addressed?

Propose a plan to reduce carbon emissions and protect the Great Barrier Reef.

Discuss the importance of international cooperation in addressing the global issue of climate change.

Section 5: Reflection

What did you learn from this homework sheet, and how can you apply it to your everyday life?

What are some challenges and opportunities for reducing carbon emissions and protecting the environment?

Reflect on the importance of taking action to mitigate the effects of climate change, and propose ways to get involved in your community.

Additional Resources

National Geographic: The Great Barrier Reef

NASA: Climate Change

Australian Government: The Great Barrier Reef

Assessment

Complete all sections of the homework sheet

Submit your work in a neat and tidy format

Include any additional resources or references used

Note

Please complete this homework sheet on your own, unless otherwise instructed by your teacher.

If you need help or have questions, don't hesitate to ask your teacher.

Have fun and learn!