Exploring Global Warming: Understanding its Impact on PLANIT the Great Barrier Reef, Rising Sea Levels, and Geological Changes

Student Name:	
Class:	
Due Date:	

Introduction

Welcome to this worksheet on global warming, designed for 14-year-old students in a UK primary school setting. This activity aims to educate you about the critical issue of global warming, focusing on its effects on the Great Barrier Reef, rising sea levels, and geological changes. By the end of this worksheet, you will have a comprehensive understanding of the interconnectedness of these topics and the importance of sustainability. Page 1: Foundation Level - The Carbon Cycle

What is the carbon cycle?

Draw a simple diagram of the carbon cycle, labeling its key components.

How do human activities affect the carbon cycle?

Page 2: Core Level - The Great Barrier Reef

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

Describe the impact of rising sea temperatures on coral reefs.

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

Page 3: Extension Level - Rising Sea Levels

What are the main causes of rising sea levels?

Analyze the effects of rising sea levels on coastal communities.

Propose a potential solution to mitigate the effects of rising sea levels.

Page 4: Foundation Level - Geological Changes

What are geological changes, and how are they related to global warming?

Describe a simple way to reduce your carbon footprint.

Draw a picture of a sustainable community, labeling its key features.

Page 5: Core Level - Human Impact

How do human activities contribute to global warming?

Explain the concept of carbon offsetting and its role in mitigating global warming.

Discuss the importance of international cooperation in addressing global warming.

Page 6: Extension Level - Sustainable Practices

Design a sustainable community project that mitigates the effects of global warming.

Research and present on a specific aspect of global warming, such as its impact on biodiversity or the effectiveness of renewable energy sources.

Evaluate the effectiveness of current international agreements in addressing global warming.

Page 7: Mixed Ability Differentiation - Group Activity

Work in groups to create a model of a sustainable ecosystem or a device that could help reduce carbon emissions.

Assign roles to each group member:

- Researcher: Gather information on sustainable ecosystems or devices.
- Designer: Design the model or device.
- Builder: Build the model or device.
- Presenter: Present the model or device to the class.

Page 8: Reflection and Feedback

What did you learn from this worksheet?

What challenges did you face, and how did you overcome them?

Provide feedback on the worksheet, suggesting improvements for future activities.

Page 9: Extension Activity - Debate

Organize a class debate on the motion "Individual actions can significantly reduce the effects of global warming."

Assign students to teams, provide research time, and facilitate the debate with clear rules and a timekeeper.

Page 10: Conclusion

Congratulations on completing this worksheet! You have demonstrated your understanding of global warming, its effects on the Great Barrier Reef, rising sea levels, and geological changes. Remember, every small action counts, and collective efforts can make a significant difference in mitigating the effects of global warming.