

**Student Name:** \_\_\_\_\_

**Class:** \_\_\_\_\_

**Due Date:** \_\_\_\_\_

## Introduction

Welcome to this worksheet on global warming and the Great Barrier Reef! In this activity, you will learn about the causes and effects of global warming, the importance of the Great Barrier Reef, and ways to reduce your carbon footprint.

## What is Global Warming?

### Complete these questions:

1. What is global warming?

2. What are some of the main causes of global warming?

3. How does global warming affect the Earth's temperature?

### Answer Key:

1. Global warming is the gradual increase in the overall temperature of the Earth's atmosphere.
2. Some of the main causes of global warming are burning fossil fuels, deforestation, and land-use changes.
3. Global warming causes the Earth's temperature to rise, leading to melting of polar ice caps, sea-level rise, and extreme weather events.

### Complete these questions:

1. What is the Great Barrier Reef?

2. Where is the Great Barrier Reef located?

3. What is the importance of the Great Barrier Reef?

### Answer Key:

1. The Great Barrier Reef is the world's largest coral reef system.
2. The Great Barrier Reef is located off the coast of Australia.
3. The Great Barrier Reef is important because it provides a habitat for a diverse range of marine life, supports commercial fisheries, and protects coastlines from erosion.

### Complete these questions:

1. What is the carbon cycle?

2. How do human activities affect the carbon cycle?

3. What are some ways to reduce your carbon footprint?

### Answer Key:

1. The carbon cycle is the process by which carbon is exchanged between the atmosphere, oceans, land, and living things.
2. Human activities such as burning fossil fuels, deforestation, and land-use changes release carbon dioxide into the atmosphere, disrupting the carbon cycle.
3. Some ways to reduce your carbon footprint include using public transportation, carpooling, using energy-efficient appliances, and reducing waste.

### Complete these questions:

1. What is sea-level rise?

2. How does sea-level rise affect coastal communities?

3. What are some ways to adapt to sea-level rise?

### Answer Key:

1. Sea-level rise is the increase in the level of the world's oceans due to melting of glaciers and ice sheets.
2. Sea-level rise affects coastal communities by causing flooding, erosion, and saltwater intrusion into freshwater sources.
3. Some ways to adapt to sea-level rise include building sea walls, relocating to higher ground, and implementing sustainable coastal management practices.

### Complete these questions:

1. What are geological changes?

2. How do human activities affect geological changes?

3. What are some examples of geological changes?

### Answer Key:

1. Geological changes refer to changes to the Earth's physical structure, such as the formation of mountains, volcanoes, and earthquakes.
2. Human activities such as mining, drilling, and construction can affect geological changes by altering the Earth's surface and subsurface.
3. Some examples of geological changes include the formation of the Grand Canyon, the eruption of Mount St. Helens, and the creation of the Great Barrier Reef.

**Complete these questions:**

1. What are some ways to reduce your waste?

2. How can you reuse items instead of throwing them away?

3. What are some benefits of recycling?

**Answer Key:**

1. Some ways to reduce your waste include using reusable bags, avoiding single-use plastics, and buying in bulk.
2. You can reuse items such as plastic containers, bags, and water bottles.
3. Some benefits of recycling include conserving natural resources, reducing landfill waste, and saving energy.

## Climate Change Debate

Imagine you are a scientist, a politician, or a community member. Debate the following topic:

"Should governments prioritize reducing carbon emissions or adapting to the effects of climate change?"

## Carbon Footprint Calculator

Calculate your carbon footprint using the following formula:

$$\text{Carbon Footprint} = (\text{Energy Consumption} + \text{Transportation} + \text{Waste}) \times 2$$

## Environmental Pledge

Make a pledge to reduce your impact on the environment. Write a short paragraph describing what you will do to reduce your carbon footprint.

## Conclusion

Congratulations on completing this worksheet! You have learned about the causes and effects of global warming, the importance of the Great Barrier Reef, and ways to reduce your carbon footprint. Remember to make a difference by reducing your impact on the environment.