

Global warming activity

Introduction

You've learned that the Earth maintains a natural carbon cycle that creates a global warming which sustains all life. There are many parts to this cycle, including the atmosphere, bodies of water, soil and organisms such as decomposers, bacteria, plants and animals. You'll need to re-create this naturally balanced system. After that, you'll need to take action to re-balance the carbon cycle so that we can reverse anthropogenic global warming.

Natural carbon cycle

Create a diagram or explanation of the Earth's naturally balanced carbon cycle. Refer to previous lessons as needed. You may also want to do some external research.

As you create your diagram or explanation, think about where you would place factories and vehicle emissions and how this would affect the naturally balanced carbon cycle.

Your steps to slow or stop global warming

Humans have upset the Earth's natural balance by artificially increasing the amount of carbon in the atmosphere, faster than the natural carbon cycle can remove it. Because of this, we are experiencing an accelerated global warming, causing more frequent and severe weather, heat-related illness, air pollution, acidified waters, loss of life and rising sea levels to name a few.

For each of the following four factors connected to global warming, describe how to make changes for the Earth in order to return to an ideal temperature, carbon dioxide level and amount of ice coverage.

Factors:

- Industrial activity
- Tree coverage
- Vehicle emissions
- Green technologies

Record your responses and then compare your thinking to the following sample responses.

Industrial activity sample response: Currently industrial activity is at a high level, and not everybody agrees on how to regulate this activity to slow or stop global warming. We need to lower the amount of industrial activity that we do that emits excess carbon into the air. This could decrease global temperatures by reducing carbon dioxide in the atmosphere and could help to slow the melting of ice on the planet.

Tree coverage sample response: We are removing much of the treed areas on the planet for human development and agriculture. We need to increase the tree coverage, since trees counteract global warming. We could do this through increased tree planting and re-forestation as well as reducing activities that require removal of trees in the first place. This could decrease global temperatures by reducing carbon dioxide in the atmosphere and could help to slow the melting of ice on the planet.

Vehicle emissions sample response: The vast majority of vehicles on the roads and in the air contribute to global warming by burning fossil fuels, adding carbon into the atmosphere. We need to make it easier for people to travel without the use of cars and we need to switch to cars that don't pollute. This could decrease global temperatures by reducing carbon dioxide in the atmosphere and could help to slow the melting of ice on the planet.

Green technologies sample response: Although green technologies are on the rise, we need to do more to prioritize this field of research and development. Green technologies can be applied to making our emissions less hazardous (factories and vehicle emissions for example) and making better use of renewable resources that don't pollute. This could decrease global temperatures by reducing carbon dioxide in the atmosphere and could help to slow the melting of ice on the planet.