

Together Apa	rt Unis	en sépo	aration
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The Carbon Cycle and Climate Change	Grade 7: Heat in the Environment	
Curriculum Connections	Topic	Earth and Space
Curriculum Connections	Fundamental	
	Concepts	Interactions

## Description

This lesson will reinforce teachings within the realm of biology, chemistry, and earth sciences, by taking a look at the carbon cycle and climate change. It will lay the foundation of how the carbon cycle influences life on Earth, and will tackle questions on climate change and how it occurs in both natural (geological/environmental events) & anthropogenic (human influence) processes.

## **Big Ideas**

There are many sources of heat Heat has both positive and negative effects on the environment

## **Overall Expectations**

- 1. assess the costs and benefits of technologies that reduce heat loss or heat-related impacts on the environment
- **3.** demonstrate an understanding of heat as a form of energy that is associated with the movement of particles and is essential to many processes within the earth's systems

## **Specific Expectations**

- **1.2** assess the environmental and economic impacts of using conventional and alternative forms of energy
- **3.7** describe the role of radiation in heating and cooling the earth, and explain how greenhouse gases affect the transmission of radiated heat through the atmosphere
- **3.8** identify common sources of greenhouse gases and describe ways of reducing emissions of these gases