



Curriculum Units by Fellows of the Yale-New Haven Teachers Institute  
2005 Volume IV: The Sun and Its Effects on Earth

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## **The Greenhouse Effect and Me: How Do We Affect Each Other?**

Guide for Curriculum Unit 05.04.09  
by Crystal P. LaVoie

I developed this unit to help students learn to understand the phenomenon of global warming and to think critically about their role in this environmental issue. The unit requires students to construct their own meaning about "the greenhouse effect" by building a body of empirical evidence from conducting modeling activities in the lab. The unit focuses on the human-caused factors that influence global warming and what if anything humans can do to slow this phenomenon. Students will review the meaning of energy, heat, and thermodynamics; they will have the opportunity to make their own greenhouses; students will think about how heat is transferred and what factors affect the heating of the environment; students will research, digest and react to their gathered information by choosing a debate topic and presenting evidence to support their standpoint. Students will also demonstrate their knowledge by writing essays to demonstrate what they are thinking and what they have learned.

In general, this curriculum unit is written to meet the expectations for a BEST science portfolio. It is written with the requirements for inquiry and Science Technology and Society (STS) activities in mind. Due to length restrictions, there is a significant resource packet available for interested teachers that is not included here. Activities of the unit are also planned to address New Haven Science Curriculum expectations, content strands, standards and science skills.

(Recommended for Integrated Science, Biology, and Environmental Science, grades 7-12.)

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