



Curriculum Units by Fellows of the Yale-New Haven Teachers Institute
2007 Volume IV: The Science of Natural Disasters

Global Warming and Hurricanes: Is an Increase in the Number of Stronger Hurricanes an Indicator of Global Warming?

Guide for Curriculum Unit 07.04.07
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This unit will be taught in conjunction with a larger theme in the ninth-grade integrated science curriculum which focuses on Global Interdependence and the impacts of humans on their natural environment. This unit will be designed to have students enhancing their critical thinking skills, as they will explore the controversies surrounding global warming and the lasting effects of global warming on the environment. The unit will take approximately six weeks and will be taught in three parts. The first part will focus on learning about what Global Warming is and understanding our role as humans in global warming, the second will focus on understanding the science behind the formation of hurricanes/tropical cyclones; and finally the third part will focus on integrating the two concepts focusing on the question: Is an increase in the number of stronger hurricanes an indicator of global warming? We are at the leading edge of this research, and scientists don't have conclusive evidence yet. There is a lot of misleading information out there for both sides of the argument, so the more important questions that the students will also be keeping in mind are: What do you believe (about the idea of global warming and its effect on the Earth)? How far are you willing to go if all of the evidence is still not in; do you act without sufficient evidence and risk a major economic crisis or wait until it's too late? Some guiding questions that the students will focus their research on include: Is global warming really happening? Is Carbon Dioxide (CO₂) causing the global temperature to change? Are natural disasters affected?

(Developed for Integrated Science, grade 9; recommended for Earth Science, Environmental Science, Biology, and Integrated Science, grades 7-12)

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