



Yale-New Haven
Teachers Institute®

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

Fueling Extreme Weather

Guide for Curriculum Unit 07.04.03
by Catherine Baker

This is an integrative unit which addresses the scientific topics of space, energy, typical weather, the hydrologic cycle and extreme weather. It is designed for lower elementary grades as I teach first-grade but can very easily be used through eighth-grade. This unit teaches the scientific method in preparation for science fair and also directly covers district science strands for first-grade. The unit is organized more broadly into three parts. The first section will focus on broader concepts so as to create the necessary background knowledge of the Sun, Earth, heat, energy, water and using the scientific process as a model for learning about nature. Next, we will focus on how the heat from the Sun interacts with water in the air to create weather. We will explore the range of typical weather conditions for this section and make observations daily. Lastly, we will focus on extreme weather conditions in a series of four in-depth case studies. The first case study will be on thunderstorms and it will be followed by hurricanes, tornadoes and heat waves. Each case study will be a complete cycle of the scientific process and will involve making models and performing experiments.

(Developed for Science, grade 1; recommended for Science, grades 1-3)

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