



YALE NATIONAL INITIATIVE

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Curriculum Units by Fellows of the National Initiative

2008 Volume VII: Urban Environmental Quality and Human Health: Conceiving a Sustainable Future

Considering Case Studies of Chemical Contamination

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by Jeff Davis

Students will learn how environmental disasters can happen, what the costs and consequences are, and how they can ascertain culpability. They will watch *Civil Action* to see how the system works when companies and citizens do battle. They will study the Exxon Valdez disaster, Hurricane Katrina and her aftermath, the plutonium contamination of Acid Canyon in Los Alamos, and the current oil drilling controversy in the Galisteo Basin in Santa Fe County. In addition, we will learn how to analyze case studies through short, simple cases on ethical situations. They will also work with a model aquifer to see how the water table reacts when substances are introduced. Finally, they will learn public speaking by listening and debating. We will have a good time learning important skills and standards.

This unit can be taught with a few different emphases; the properties and behavior of matter, hazardous chemicals and the environmental consequences of waste, and civics, economy, communication, and rational reasoning. Useable strategies in teaching the unit include case studies, guest speakers, debaters, presenters, and field trips. We will also use the Internet for research, a model aquifer, and student presentations.

(Developed for Science and Social Studies, grade 5; recommended for Science and Social Studies, grades 5-10)

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