



# YALE NATIONAL INITIATIVE

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Curriculum Units by Fellows of the National Initiative  
2009 Volume V: Green Chemistry

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## **It's Not Waste: Teaching Recycling through Density, Phase Change and Solubility**

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Conservation. Sustainability. Renewable resources. These immense concepts overwhelm my students; even I have difficulty wrapping my mind around them. With such multifaceted ideas, the students find it complicated to act in an earth-friendly manner. The aim of this unit is three fold: to create questioners and lifelong learners, to make an impact on the environment and to influence businesses in our area to act more responsibly. In this unit, the students will explore local and simple actions to aid the planet while developing problem-solving skills. Additionally, students will apply the concepts of density, phase change, and solubility while experimenting with methods of recycling in a single stream system. They will determine how to sort comingled recyclables to prevent contamination and how to reclaim the various materials for reuse. In this unit, students will explore the application of scientific concepts and techniques of investigation, problem-solving strategies, as well as behaviors that will help sustain the environment.

(Developed for General Science, Properties of Matter Unit , Beginning Chemistry, grade 7; recommended for Chemistry, Environmental Science, and General Science, grades 6-9)

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