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Environmentalists and Chemists Unite: A Chemistry Class for our Changing World

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by Cherisse M. Campbell

When taken out of context, the standard high school chemistry curriculum can be seen as an obscure chain of unrelated factoids. This curriculum unit will address several standards-based curriculum components by situating them within the context of a topic that has been receiving significant attention in the popular media, the need for alternative energy sources. The unit has four parts, each offering a method of addressing traditional chemistry content through engaging connections and activities. Although the theme of the unit is centered on alternative energy sources, it is intended to address content required in the chemistry curriculum, including atomic inventory, classification of matter, balancing equations, naming covalent compounds, moles, stoichiometry and heat capacity. This will be accomplished through the use of literature and lab experiments such as the synthesis of biodiesel. The lessons presented in this unit are not intended to serve as the sole reinforcement for the chemistry content covered, but to serve as a unifying theme throughout a course that is commonly characterized by content that appears unrelated and irrelevant to students.

(Developed for Chemistry, grade 11; recommended for Chemistry, High School grades)

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