

Curriculum Units by Fellows of the Yale-New Haven Teachers Institute 2010 Volume IV: Renewable Energy

## **Environmental Agents of Mathematics: Mathematicians for Change**

Guide for Curriculum Unit 10.04.06 by William Lawrence McKinney

This unit focuses on the creation and understanding of data collection and scatter plots. Many textbooks concentrate on plotting points and developing linear regressions based on best-fit models. While this unit intends to accomplish these skills, it will also revolve around the notions of bias and influence to discuss how data can be manipulated to prompt specific reactions and alter public opinion. More specifically, this unit will focus on how data and scatter plots can affect public opinion on significant political debates such as environmental protection and energy resources. This unit focuses primarily on the consumption of fossil fuels and looks at different perspectives on the energy crisis. In the end, students will pull together their mathematical knowledge and their energy knowledge to create a public service announcement that accurately informs the public of real energy issues that are mathematically supported.

Students will learn to plot points, create scatter plots, identify types of correlation, and extrapolate and interpolate values.

(Developed for Algebra I, grades 9; recommended for Algebra I, grades 7-9)

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