

Curriculum Units by Fellows of the Yale-New Haven Teachers Institute 1993 Volume V: Environmental Science

## **Environmental Studies: An Approach to Educate and Preserve Our Planet**

Guide for Curriculum Unit 93.05.11 by Joe Lewis

This curriculum unit is designed to make younger students aware of their environment. I teach fifth-grade science at Troup Magnet Academy of Sciences where I find that most of my students lack the necessary background in science to begin to understand such concepts as the "greenhouse effect" and "acid rain" which are the two main environmental issues that I plan to present to my students. Therefore, within this unit I will give the students an introduction to earth science so that they can grasp the previously mentioned concepts.

Upon completion of this unit, the students will be aware of the earth's atmosphere, how our planet preserves itself, and some of the current problems that they will have to start confronting in order to provide a safe environment for themselves and their families. Hopefully, they will become advocates of current environmental issues and force their parents and other adults to realize that we all must do our part in helping to save our planet.

The curriculum unit, will include the following components:

I. Introduction to Environmental Studies (A) The Four Major Layers of the Earth's Atmosphere (1) Troposphere (2) Stratosphere (3) Mesosphere (4) Thermosphere (a) Ionosphere (b) Exosphere (B) The Heating of the Earth's Atmosphere (C) Examples of Natural Cycles Which Occur on Our Planet

- (1) The Carbon Cycle (2) The Nitrogen Cycle (3) The Water Cycle
- II. The Greenhouse Effect and Its Gases
- III. The Acid Rain Controversy

I plan to include as many scientific investigations as possible in my lesson plans so that the students can witness that the environmental problems presented within this unit actually exist, and that they should be concerned about them. Therefore the focal point of my lesson plans will be geared towards "hands-on" experiences in order to reinforce the objects and concepts which are presented within this curriculum.

(Recommended for Earth Science, Grade 7; and General Science, Grade 5)

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