



Curriculum Units by Fellows of the Yale-New Haven Teachers Institute
1991 Volume VI: Global Change

Earth's Changing Atmosphere

Guide for Curriculum Unit 91.06.04
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The purpose of this unit is to investigate the Earth's changing atmosphere. The unit will deal primarily with the degassing of the planet, the atmosphere past and present, how our atmosphere compares with other planets, the troposphere, the greenhouse effect and acid deposition. It is my aim to provide students with information and hands-on experiences on the subject of global warming. The students will become aware of career related fields.

Included in the unit will be a description of the Earth's core, mantle and crust as it relates to degassing of the planet. A variety of biological and geological processes can result in the emission of gases from Earth's surface to the atmosphere. These emissions, which can have a major effect on atmospheric composition, appear to be different in both the types of species released and the rates at which they are emitted into the atmosphere. Pollution and acid rain have always been an issue, but the war in the Persian Gulf reminded us of how devastating the problem is. The effect of this pollution as a result of the burning of the oil fields in Kuwait will be looked at.

This curriculum is designed as a challenge to middle school students in grades five through eight. The unit will include lesson plans, laboratory exercises, teacher and student resources, a reading list for students and teachers, field trips and a bibliography. It is my hope that this unit will add dimension to the science curriculum and will be meaningful to both students and teachers. Teachers who teach history can also effectively utilize this unit.

(Recommended for Science and Social Studies, grades 5-8)

Key Words

Ecology Environmental Science Atmosphere Global Change Geology

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