Environmental Chemistry

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Cost: $18.95/ $94.75 for 10 pack

SUBJECTS

Health

Mathematics

Science

Social Studies

IN A NUTSHELL

This textbook is designed to help students develop a broad, general understanding of the role of chemistry in the creation and solution of environmental problems. Each of the twelve chapters addresses a different situation in air pollution, water pollution, solid waste management or atmospheric change. While the emphasis is on discussing each of these in terms of the organic and inorganic chemical equations and reactions involved, the biological, social and political ramifications are also addressed. Along with extensive explanations of the problems, the text contains a series of activities (which include calculations, essays, graph construction, interviewing and other research techniques), tables, figures, and review questions. Student activities explore a range of issues such as sources of sulfur and nitrogen oxide and ways to combat greenhouse effects. Also included are a glossary, index and list of additional resources. Illustrations are drawings and black and white photographs.

Grade Level
9-12

Length
183 pages

Date Published
1991

THE BOTTOM LINE

"Presents chemistry as a tool: sometimes abused, but necessary to continue human existence, and also necessary in the correction of the problems its past use has created."

What the REVIEWERS Said !

Key Characteristics	Strengths Noted	Other Considerations
Fairness and Accuracy	Accurate presentation of factual information. Attempts to provide balanced perspective on most issues and to mention differences of opinion on scientific matters.	Approaches topic from perspective of environmental problems; this orientation can give "gloom and doom" impression.
Depth	Connects chemistry discussions to social issues. Provides in-depth study of environmental chemistry.	
Emphasis on Skills Building	Requires some library research and critical thinking skills. Encourages students to apply knowledge to issues.	Material requires use of skills, but does not focus on skills development as such.
Action Orientation	Not Applicable.	
Instructional Soundness		Does not present material in terms of outcomes, goals or objectives.
Usability	Contains well-written explanations of terms and issues. Provides some variety of activities.	Instructions for activities are vague. May be too sophisticated for many students.

"Doesn't balance its negative statements on polluting entities with ways that problems are being addressed."

"Can be the basis of an issues- or a sciences-oriented approach to pollution problems."