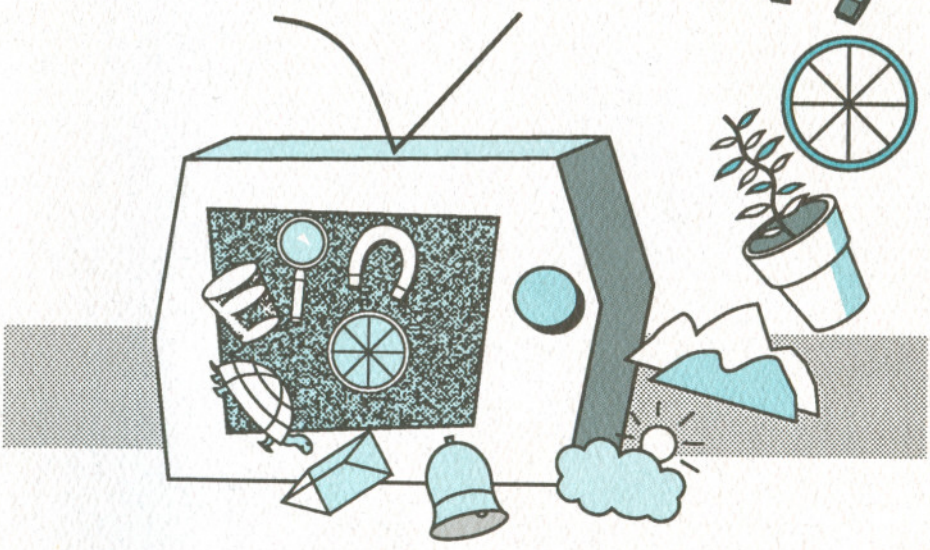
Science Is Elementary

Teacher's Guide



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Science Is Elementary was produced by the
Agency for Instructional Technology in association with
General Learning Video.
Executive Producer/Director/Writer: Larry Walcoff
Camera/Editor: Nick Kolias

Instructional Designer:
Dolores J. Deardorff,
Instructional Design Associates
Elementary Science Consultants:
Denise E. Lessow and
Eric Worch, Indiana University
AIT Executive Producer:
Frank Batavick

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Science Is Elementary

Ten 15-minute programs for kindergarten through second-grade students

Guide Writer
Melinda Grewar
Agency for Instructional Technology

Consultants
Dolores J. Deardorff
Instructional Design Associates

Eric Worch
Indiana University

Agency for Instructional Technology
Box A, Bloomington, IN 47402-0120
812/339-2203 or 800/457-4509

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Introduction

Science Is Elementary helps children use their natural curiosity to observe, question, and physically investigate science. The series responds to a number of national studies which recommend that young children be allowed to explore science concepts actively and authentically, rather than simply reading and hearing about them. The videos help foster lifelong enthusiasm for science exploration by featuring non-competitive environments in which children and adults are free to seek knowledge, question, and learn cooperatively.

Each of the ten video programs is a complete lesson in itself; therefore, the programs may be presented in any order. The lessons follow a learning cycle format involving viewers in three specific activities: exploration, concept development, and application.

During the videos' **exploration** segments, students gather information about the topic. The hostess asks open-ended questions that encourage children to observe the many examples shown in the video and to communicate their discoveries. These segments have little narration so children may speak unhindered while the program is playing. Teachers may wish to stop the tape frequently here to encourage children to answer the hostess's questions and make further observations.

In the **concept development** segments, children use their explorations to form science concepts and develop thinking processes. Viewers see classroom teachers and students conducting hands-on activities. Teachers may wish to pause the video here and follow up with their own hands-on discoveries in which children use their senses and basic tools. This guide indicates pauses within the programs and suggests appropriate activities.

In the **application** segments, children come to understand practical applications of science and thinking processes within language arts, social studies, or careers. The videos conclude with "You Try It" segments, which challenge viewers to perform a hands-on activity or skill that relates to the program topic.

Learning Objectives

After viewing the programs and completing the lessons, students will be able to

- describe basic concepts of science
- demonstrate hands-on and thinking skills while carrying out scientific exploration
- apply scientific concepts to aspects of their own lives and the larger world

Teacher's Guide

This guide provides suggestions for introducing, presenting, and reinforcing each of the video programs. In keeping with current models of authentic instruction, the guide offers teachers "More Exploring" pages, which suggest a wide variety of hands-on and cross-curricular follow-up activities. These pages have been provided in lieu of student worksheets, which typically involve closed activities on paper and do not facilitate hands-on exploration.

Teachers may implement all of the guide's suggestions or choose specific ones to supplement existing lesson plans. The guide also includes a glossary of the terms defined in each program, lists of related children's literature and science references, and a textbook correlation chart which indicates how certain ***Science Is Elementary*** programs supplement units in major elementary science texts.