

high school and high school classes.

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SCIENTISTS

How scientists think and work. 1985. Hawkhill Associates, Madison, WI. Color filmstrip with cassette or video. 15 min. Purchase: filmstrip \$39, video \$69. Rental: video \$26.

The overall effort of this 80-frame program is to portray scientists to be anything but the stereotyped male in a white coat surrounded by test tubes and apparatus. Laboratory diversity is stressed—just what and where a laboratory can be, whether indoors or outdoors, in simple or complex settings. Personal and personnel diversity is also considered—what the scientist is, wears and does, male or female, wearing bib overalls or suits, etc. Equally impressive are the points made in the dialogue as to the human side of scientists: “poor, rich, aggressive, clever, clumsy, shy, red, black, white, yellow, social hard drinking, charming, gay, handicapped, etc.”

Other points are made about what the scientific method is and is not. For example, it is methods and values, not a set formal routine!

For the teacher, there is an accompanying manual with suggestions for investigations and discussion along with a bibliography.

This shorter version of the series, which was reviewed in the Nov./Dec. 1984 *ABT*, is highly recommended for high school and college as well as for the junior high group for which it was prepared. This can be a real catalyst to aid the teacher in giving students a realistic view of science and scientists. Scientists are “real people, too.”

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GENERAL

Spaceship earth. 1985. Hawkhill Associates, Madison, WI. 6 color filmstrips with cassettes or videos. 11 to 18 min each. Purchase: filmstrip \$39 each, video \$69 each. Rental: video \$69.

Written for use at middle and secondary school level, each 80-frame

topic—The Universe, The Biosphere, Living Things, The Cell, Atoms and Molecules, and A Little While Aware—is an entity of itself and can be used independently, apart from the designated sequence. Some of the photography is of poor quality. The frames have no numbers to correlate them with the script, which is critical to this series because of disjunction between what is shown in the frame and what is spoken in the script.

A 20-page script comes with the materials. There is no teacher’s guide identifying major concepts, behavioral objectives, correlations with related content areas, competency expectations, suggestions for further investigations or bibliographic references. The type style of the script is reduced mini-cubic, requiring a hand lens to read. More disconcerting than the type size is the frequent noncontinuity of frames with script. For example, in Part 2, frame 23 shows a cowboy on a horse. The accompanying script is, “How does it work? The Biosphere that is? How do all the parts mesh together—cooperate? Or grind against one another—break down?” Frame 53 shows a lady laughing. The script is, “And we eat what the producers provide. We eat and live. For yes, this is where we fit into the Biosphere. As consumers.” The woman at least could have been munching on a sandwich to portray some association with the script. In Part 3, frame 75 shows and solitary dog and frame 76 shows a mare and colt. The corresponding script for the two frames read, “And from that little difference comes in time big differences. From amoebas to whales, from insects to humans, the amazing variety of life on this small spaceship has all come out of these small differences of parent to child, multiplied over many millions of years.” A frame showing an amoeba and a whale, or perhaps a child chasing a butterfly, would have been more complementary and meaningful to the script. Part 4, frame 76 shows a robust woman wearing an extremely low-cut dress revealing cleavage sufficient to evoke spontaneous whistles and jeers from adolescents at middle and secondary school levels. The accompanying script lacks relevance. “There is a vitality a life force, an energy, a quickening, that is translated through you into action. . . . And if you block it, it will never exist through any other medium and be lost. The world will not have it.”

Similar discontinuity is portrayed throughout all sections of the series. Some disjunctions border on the in-

congruous, such as frame 39 in Part 5 which shows horses, with the accompanying scripts, “We are a very small part of this universe. Frame 52 shows Stonebarger standing before a ruin in Athens. The script refers to “. . . understanding the atoms listed on this chart.” There is no chart. The periodic table appeared 19 frames prior to this one in frame 33.

Instructors who are looking for audiovisual materials to teach substantive scientific concepts pertaining to the six areas touched upon in this series would do better looking elsewhere. The focus appears to be on the viewer developing some kind of ecological awareness arrived at through a combination of intuition, reason and emotion.

Spaceship Earth offers no correlation with the NSTA or NABT excellence in teaching criteria. There is no correlation of information present with the science framework. These materials offer no positive educational value to instructors, to students or to the content presented.

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of
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