In recent years, science educators and curriculum developers have realized that the goals of science education should be targeted at all students and extend beyond the preparation of science-oriented students for academic careers in the sciences (van den Akker, 1998). In order to achieve scientific literacy for all, the science curricula should be relevant to the personal lives of students and the society in which they live. Moreover, the relevance of science has the potential to motivate students to learn the subject (Byrne & Johnston, 1988; Hofstein & Walberg, 1995).

These ideas necessitate reform in science education. Publications of such reforms can be found in several countries, e.g., *Science for All Americans* (AAAS, 1989) and the *National Science Education Standards* in the U.S. (NRC, 1996); *Beyond 2000* in the U.K. (Millar & Osborne, 1998); *Science for All Australians* (Fensham, 1995), and *Tomorrow 98* (1992) in Israel.

The *National Science Education Standards* in the U.S. (NRC, 1996) state the desired goals for school science education, and define the science content categories that all students should learn. The content categories include: “Unifying Concepts and Processes,” “Science as inquiry,” “Life Science,” “Science and Technology,” “Science in Personal and Societal Perspectives,” and “History and Nature of Science.”

One of the suggested means for attaining the demanding goal of reform is to incorporate the Science-Technology-Society (STS) approach into teaching (Solomon & Aikenhead, 1994; Bybee & Ben-Zvi, 1998). The STS approach advocates incorporating applications as well as personal and societal value judgments and decision-making in the development of the curriculum. A major feature of STS education is dealing with real-world issues (Yager & Holstein, 1986; Yager & Tamir, 1986).