



Technology for All Americans Project Staff

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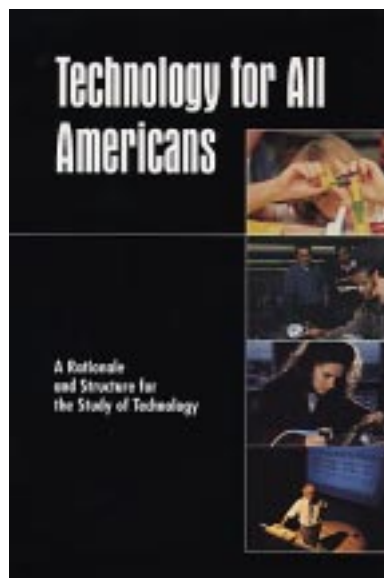
The Technology for All Americans Project: A Vision for the Future

The International Technology Education Association (ITEA) has been in the process of developing technological literacy for all students in grades K-12. To oversee the work, ITEA formed the Technology for All Americans Project and secured funding in 1994 from the National Science Foundation (NSF) and the National Aeronautics and Space Administration (NASA).

Phase I of the project resulted in the document *Technology for All Americans: A Rationale and Structure for the Study of Technology*, which was published in September 1996. The document was the product of the experiences, knowledge, and advice of hundreds of professionals in technology education and other fields, including science, mathematics, engineering, and the humanities. In headings like "The Power and Promise of Technology," "A

Structure for the Study of Technology," and "The Need for Technological Literacy," it explains why technology education is important. For example, the document points out, "There is a widening gap between the knowledge, capability, and confidence of the average citizen and that of the inventors, researchers, and implementers who continually revolutionize the technological world," (Technology for All Americans Project, 1996, p. 6) and, "Technologically literate persons are capable problem solvers who consider technological issues from different points of views and in relationship to a variety of contexts" (Technology for All Americans Project, 1996, p. 11). The rationale and structure document offers refined definitions - technology is "human innovation in action" (Technology for All Americans Project, 1996, p. 16) and technological literacy is "the ability to use, manage, and understand technology" (Technology for All Americans Project, 1996, p. 6) — and it establishes technology as a field of study.

Phase II of the project, which began in October 1996 and will continue through September 1999, is also funded by NSF and NASA grants and, as in Phase I, is a highly collaborative process. The goal of Phase II is to develop content standards for technology education for grades K-12.



An eight member advisory group offers advice to the project on the best practices in standards development and suggests ways for the study of technology to be integrated into the total school curriculum. The advisory group is made up of leaders from technology education, science, mathematics, and engineering, most of whom were involved in other standards development efforts.

A 27-member standards team, composed of teacher educators, administrators, classroom teachers, and experts in technology education, science, mathematics, and engineering, is divided into three subteams: one for grades K-2 and 3-5, one for grades 6-8, and one for grades 9-12. The role of the standards team is to propose, evaluate, and approve the content of the standards.

The content standards are being developed with benchmarks or assessment checkpoints at the end of grades 2, 5, 8, and 12. The standards take into account the different abilities and needs of elementary, middle, and high school students. Over 100 content standards have been developed to form an articulated structure for the study of technology for grades K-12. For example, the content standards will encourage elementary school students to design, draw, plan, build, and test simple technological systems. The lesson will be that technological solutions are solutions for many different types of problems, and that such solutions often require planning and sometimes revision. Other concepts include the importance of collaboration, and that project-

based activities can be valuable, enjoyable avenues for learning. The content standards allow the middle school students to build upon and expand on the technological literacy achieved at the elementary school level. In turn, they allow the high school students to achieve an even higher level.

Importantly, ITEA and the project are not developing a curriculum for technology education. Instead, the standards will provide a general framework and guidelines for a quality education in technology. They will offer advice and guidance to local schools, districts, regions, and states in the development of their curriculum and to teachers as they prepare lesson plans. Under the standards, communities will have the option and freedom of individualizing their technology education curriculum to reflect their own interests and goals.

During the fall of 1997, ITEA and the Technology for All Americans Project submitted the first draft of the *Standards for Technology Education* for review and comment. Consensus hearings were held in different parts of the country allowing participants to provide their views on the content standards. In addition, the first draft was mailed to approximately 200 individuals for input and was reviewed electronically via the project's home page during the month of November. Using this same consensus-building process on a second draft in the spring of 1998, the standards will then be revised and field tested in selected schools across the U.S. Input from the field testing will be incorpo-

rated into the final version of the standards, set to be released at the ITEA Conference in Indianapolis, Indiana in March 1999.

Because the standards must be relevant to classroom concerns and applicable in a school environment, the project welcomes input from classroom teachers, for it is teachers who are in a position to provide practical insight. The project invites teachers to submit examples and vignettes of successful classroom technology education assignments, and photographs, drawings, or other illustrations. Teachers may receive newsletters and other information about the project by requesting that their names be added to the project's mailing list.

For more information about the *Standards for Technology Education* or to be placed on the project's mailing list, contact:

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References

Technology for All Americans Project. (1996). *Technology for all Americans: A rationale and structure for the study of technology*. Reston, VA: International Technology Education Association.