

Technology Education: *An Imperative for the Commonwealth of Virginia*

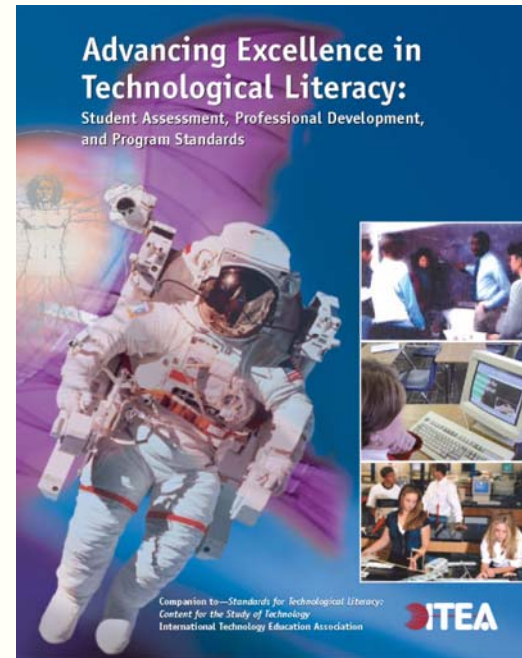
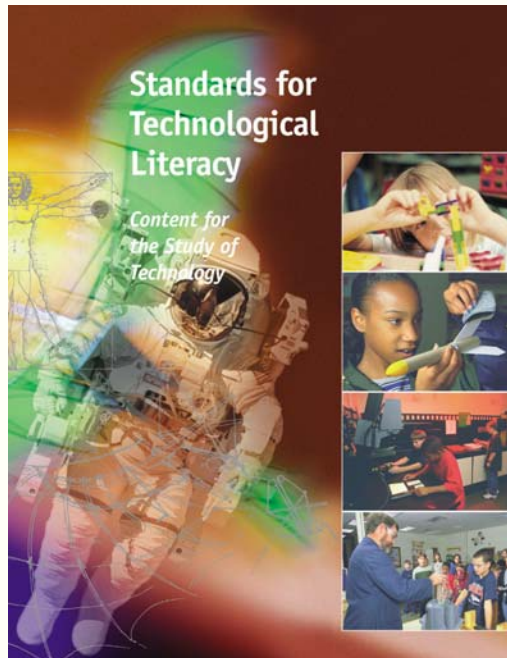
Preliminary Report
Presented to
HJR-25: Joint Subcommittee Studying
Science, Mathematics, and Technology Education



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Standards for Technological Literacy

The Standards for Technological Literacy defines what students should know and be able to do in order to be technologically literate and provides standards that prescribe what the outcomes of the study of technology in grades K-12 should be.



Standards for Technological Literacy

A Call For Action



The Virginia Technology Education Association believes that dynamic action is demanded in two vital areas to improve and strengthen the education of all learners in Virginia's schools:

- 1) Include the study of technology, which emphasizes technological content, processes, and effects, within the curriculum for every learner (K-12).**
- 2) Prepare teachers in the content and methods for developing the individual learner's technological literacy and capability.**

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1. Elementary School – Integrated Learning

Technology Education should be integrated throughout the elementary school curriculum for each learner, grades K-5, and taught by elementary teachers.



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2. Middle School – Required for all Learners

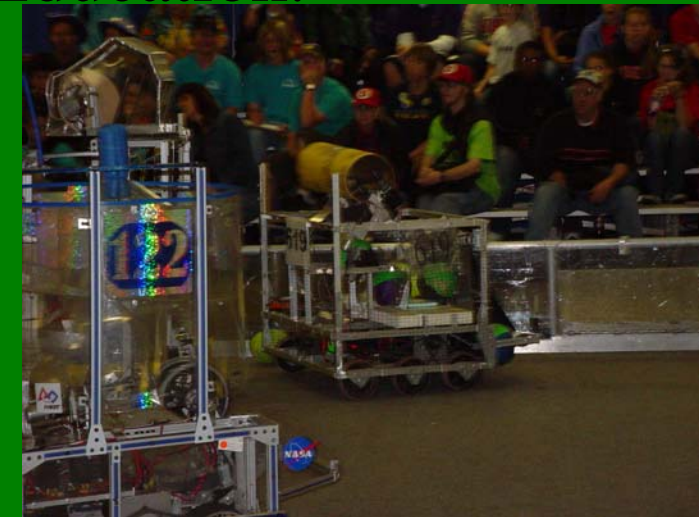
Each student in middle school, grades 6-8, should receive instruction in Technology Education and be taught by certificated Technology Education



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3. High School – Provided as a STEM Elective

The secondary schools, grades 9-12, should include at least two units (courses) of Technology Education.



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4. STEM Initiative

A state-wide initiative should be funded for two biennial periods to establish K-12 STEM based Technology Education courses on a per school basis in elementary, middle, and high schools.



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5. Technical Assistance

The Virginia Department of Education should provide professional assistance to local education agencies through the services of AT LEAST three Technology Education program area specialists, which would focus on elementary, middle, and high school.

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6. Teacher Preparation

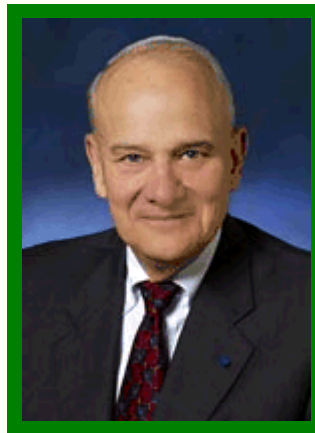
Technology teacher pre-service and in-service education should be established to credential a sufficient number of teachers and sustain their preparation in delivering high quality and relevant Technology Education instructional programs.



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“We are a nation increasingly dependent on technology. Yet, in spite of this dependence, U.S. society is largely ignorant of the history and fundamental nature of the technology that sustains it. The result is a public that is disengaged from the decisions that are helping shape its technological future. In a country founded on democratic principles, this is a dangerous situation.”



- William A. Wulf
National Academy of Engineering



NATIONAL ACADEMY OF ENGINEERING

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- It is believed that these educational improvements can be facilitated by changing both Virginia's Educational **Standards of Quality** and the **Standards and Regulations for Public Schools in Virginia**.
- These provide the legal bases for making Technology Education a required part of each student's education.