| **Virginia Board of Education Agenda Item** | **Seal of the Commonwealth of Virginia** |
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# Agenda Item: H

## Date: March 19, 2020

### Title: First Review of the Proposed 2020 *Computer Technology Standards of Learning*

#### Presenter: Mr. Mark R. Saunders, Instructional Technology Coordinator

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## Purpose of Presentation:

Action required by state or federal law or regulation.

## Executive Summary:

Using an established review process and criteria, Virginia Department of Education staff and several committees have conducted a review of the current *Computer Technology Standards of Learning* and present a draft of new standards for first review.

The *Computer Technology Standards of Learning* provide a framework for technology-related knowledge and skills, focused on learning, that are needed by students to succeed in post-secondary education and the work force. The standards also provide guidance on the knowledge and skills that teachers in Virginia are expected to integrate into instruction in order for students to understand the role of technology in learning.

In many ways, the *Computer Technology Standards of Learning* complement some concepts and skills covered with the *Computer Science Standards of Learning*. However, there are distinct differences between computer technology and computer science. Since the adoption of the *Computer Science Standards of Learning* in 2017, there has been considerable misunderstanding of the distinctions between computer technology, computer science, and the standards for the two areas. Therefore, to avoid any misunderstanding and to emphasize the essential role of technologies in the deeper learning experiences of students, as digital citizens in an ever-increasing digital world, through integrated instruction in all content areas, it is proposed that the *Computer Technology Standards of Learning* be renamed the Digital Learning Integration Standards of Learning. The proposed 2020 *Computer Technology Standards of Learning* will also replace the current *Computer Technology Standards of Learning* *by* focusing lesson actual technologies or devices (spreadsheets, word processors, keyboard, etc.) and the use (interact, edit, open, etc.) of them and more on the integration of the technologies in students’ learning experiences.The proposed standards delineate seven roles students function in during their learning: 1) Empowered Learner, 2) Digital Citizen, 3) Knowledge Constructor, 4) Innovative Designer, 5) Computational Thinker, 6) Creative Communicator, and 7) Global Collaborator.

This item aligns with Priority 1 from the Board of Education’s Comprehensive Plan: 2018-2023, to provide high-quality, effective learning environments for all students.

## Action Requested:

Action will be requested at a future meeting. Specify anticipated date below:

## July 23, 2020

## Superintendent’s Recommendation:

The Superintendent of Public Instruction recommends that the Board of Education receive the proposed 2020 *Computer Technology Standards of Learning* for first review*.*

## Previous Review or Action:

Previous review and action. Specify date and action taken below:

Date: September 19, 2019

Action: Timeline for the Development of the *Computer Technology Standards of Learning*.

Background Information and Statutory Authority:

The Board of Education has made a commitment to maintain rigorous and relevant expectations for student learning that meet or exceed national and international benchmarks for college and career readiness. The *Code of Virginia* requires a review of Virginia’s Standards of Learning every seven years.

*Code of* *Virginia*, Section 22.1-253.13:1-B… “The Board of Education shall establish a regular schedule, in a manner it deems appropriate, for the review, and revision as may be necessary of the Standards of Learning in all subject areas. Such review of each subject area shall occur at least once every seven years. Nothing in this section shall be construed to prohibit the Board from conducting such review and revision on a more frequent basis…”

In accordance with the timeline reported to the Board in September of 2019, the Virginia Department of Education (VDOE) has produced a draft of the proposed 2020 *Computer Technology Standards of Learning* documents found in Attachment A. During the review and revision process several actions were taken.

Public comment was received from stakeholders on the development of the proposed 2020 *Computer Technology Standards of Learning*. During the period of October 11, 2019 – February 11, 2020 a total of 13 comments were received.

A steering committee was convened to review public comments and make recommendations for revisions to the standards. The steering committee of 13 was comprised of eight instructional technology resource teachers, two classroom teachers, one DOE Office of Special Education staff member, the DOE’s Computer Science Specialist, and a representative from the International Society for Technology in Education, one of the leading non-profit instructional technology organizations in the world. A combination of in-person and online meeting were held with the steering committee on October 21 and 28, and November 6 of 2019 and on January 8, 15, 16, and 29 of 2020. The steering committee also met online as individual grade band teams at various times between November and January to complete tasks and revisions.

A teacher review committee was convened to review public comments and make recommendations for the development of the standards. The teacher review committee was comprised of the 13 steering committee members and nine additional individuals including seven classroom teachers, an assistive technology specialist from a state institution of higher education with experience as a former special education teacher, and an instructional technology resource teacher. Teacher review committee members represented six of the eight Superintendent’s Regions: 2, 3, 4, 5, 6 and 8. The teacher review committee met in collaboration with the steering committee on January 15 and 16, 2020.

One external review committee meeting was also convened on January 24, 2020. Members of the following organizations were invited to participate on the committee:, Virginia Association of Elementary School Principals, Virginia Association of School Librarians, Virginia Association of School Superintendents, Virginia Association of Secondary School Principals, Virginia Community College System, Virginia School Boards Association, Virginia Society for Technology in Education, the College of William and Mary, James Madison University, Longwood University, Blue Ridge Governor’s School, Maggie Walker Governor’s School, Amazon, Apple, CodeVA, Common Sense Media, Dominion Power, Google, Microsoft, RichTech, and Virginia CyberRange from Virginia Tech.

During the external review committee meeting input and feedback was received from members of the following organizations: the College of William and Mary, Longwood University, Maggie Walker Governor’s School, and CodeVA.

VDOE staff specializing in mathematics, science, business and information technology, fine arts, history and social science, and virtual learning also participated in an internal review of the proposed standards.

Additional support during the review process was received from the Department of Learning and Innovation staff such as insights from work with existing content area standards, the relationship of proposed standards to existing content areas standards, and working with content review committees.

Using input received electronically and in person during meetings, along with support from VDOE staff, the steering committee developed a draft of the proposed standards.

Timetable for Further Review/Action:  
Following the Board of Education’s acceptance of the proposed 2020 *Computer Technology Standards of Learning* for first review, the Department of Education will receive public comment for at least 30 days before bringing the proposed 2020 *Computer Technology Standards of Learning* to the Board of Education for final review in July 2020. During the public comment period, the Board of Education will host public hearings on the proposed 2020 *Computer Technology Standards of Learning*.

## Impact on Fiscal and Human Resources:

The collection and analysis of public comment and additional revisions to the standards can be absorbed by the agency’s existing resources at this time. If the agency is required to absorb additional responsibilities related to this activity, other services may be impacted.