

**Arlington Public Schools**  
**Strategic Digital Literacy and Technology Plan 2018 - 2021**

The major goal of the new technology plan is to provide the infrastructure that will allow us to meet the state standards presented in the [2016 Massachusetts Digital Literacy and Computer Science Curriculum Framework \(DLCS\)](#). The vision of the standards is to:

...engage students in digital literacy and computer science skills and concepts through the integration of practices, while making connections to what they know and the world they live in. The goal of the Guiding Principles is to help educators create relevant, rigorous, and coherent [DLCS](#) programs that support student engagement, curiosity, computational thinking, and excitement for learning over time.

Another action step to support the plan is to implement a K-12 Digital Citizenship curriculum that will be aligned by the 2016 [DLCS](#) standards and the following **5 guiding principles**:

**Guiding Principle 1: Learning:** Digital Literacy and Computer Science ideas should be explored in ways that stimulate curiosity, create enjoyment, and develop depth of understanding.

**Guiding Principle 2: Teaching:** An effective program is based on a carefully designed set of content standards that are clear and specific, focused, and articulated over time as a coherent sequence.

**Guiding Principle 3: Equity:** All students should have a high quality digital literacy and computer science program that prepares them for college and a career.

**Guiding Principle 4: Literacy Across the Content Areas:** An effective digital literacy and computer science program builds upon and develops students' literacy skills and knowledge.

**Guiding Principle 5: Assessment:** Assessment of student learning in digital literacy and computer science should take many forms to inform instruction and learning.

**Context for the Technology Plan**

Since the creation and implementation of our previous technology plan, there have been shifts in curriculum and assessment which were taken into consideration when creating the new plan. These considerations include:

- Arlington's adoption of G Suite for Education apps, including Google Classroom

- The MA Elementary and Secondary Education adoption of the revised and updated [DLCS](#) curriculum frameworks in 2016
- The evolution of Massachusetts Comprehensive Assessment System (MCAS) to an online platform for all grades who participate
- The integration of project-based learning (PBL) into content area instruction
- The goal to expand the Arlington Public Schools Digital Media Literacy (DML) courses at the middle and high school level
- The goal to expand personalized learning opportunities for students at all levels
- The expanded pilot of i-Ready, the online adaptive testing platform, as a common assessment for math and reading in grades 4 and 5

In addition to the aforementioned developments, district personnel created the **Vision of Student as Learner and Global Citizen**. This vision statement, which is listed below, serves as a beacon for the type of skills students need to acquire as they matriculate and ultimately graduate from the Arlington Public School District. A well thought out strategic instructional technology plan is an integral component for preparing students to meet the characteristics stated in the vision statement.

### **Vision of Student as Learner**

The Arlington Public Schools strives to build the capacity of each student to become lifelong learners and critical thinkers who are welcoming of a challenge, resilient, and exhibit a curiosity about learning. They will be able to participate in and contribute to the complex and ever-changing world in which they live.

#### **These characteristics will be demonstrated by student's ability to:**

- Work independently and collaboratively
- Observe, analyze and synthesize information from a variety of sources to enhance existing understandings and construct new knowledge
- Demonstrate perseverance by using repeated reasoning and inquiry
- participate in rigorous, focused discourse
- Develop and defend arguments based on evidence and respectfully consider different perspectives
- Create and critique original work

### **Vision of Student as a Global Citizen**

Students will strive to be empathic, responsible, active members of a local and global community who are aware of the role that bias and prejudice play in society, as demonstrated by their ability to:

- Speak with and listen to others in a manner that is respectful of multiple perspectives
- Cultivate and maintain healthy and rewarding relationships with diverse individuals and groups
- Develop self-awareness and self-understanding
- Think critically and reflect upon choices and their impact on others
- Participate as a consumer of and contributor to the cultural and civic life of local and global communities

### **Highlighted Accomplishments from 2014-2018**

This current technology plan seeks to build off the progress that was made over the past 4 years. Examples of such progress includes, but is not limited to:

#### **Curriculum**

- Increased the use of online tools and apps that students can use to support their learning:  
**Examples include**, Scratch, Reading A to Z, and BrainPOP
- Expanded course offerings in DML at the middle school level
- Integrated technology to support Project Based Learning (PBL)
- Expanded opportunities for Personalized Learning
- Expanded Makerspace programming at Arlington High School

#### **Support, Professional Development, and Policies**

- Hired a Director of Digital Learning
- Hired a lead Makerspace teacher and coordinator at Arlington High School
- Created a District-Wide Digital Literacy Team by the Director of Digital Learning
- Created after-school professional development opportunities for teachers and staff
- Developed a Bring Your Own Device (BYOD) policy for grades 6-12

#### **Hardware**

- Increased the number of student laptop and iPad carts at elementary, middle, and high school
- Redeployed older iPads to the K - 2 grades
- Implemented the Bring Your Own Device (BYOD) initiative at the middle and high school level
- Replaced older projectors with HDMI ceiling mounted projectors
- Increased the district's network bandwidth to accommodate the increased use of devices
- Replaced older teacher devices

## 2018-2021 Strategic Digital Literacy and Technology Plan by Year

Based upon data accumulated from 2014 – 2018, the current strategic plan is based on a 3 year cycle. This is to keep pace with the speed in which technology changes over time. This includes the life-cycle of current devices. Experience and research has informed our practice to consider the replenishment of devices within a three to four year time frame.

### 2018-2019 School Year

#### Curriculum

- Pilot Digital Citizenship curriculum in May/June
- Digital Learning teachers will pilot digital citizenship curriculum
- The creation of a seventh/eighth grade elective Digital Media and Literacy (DML) class at Ottoson Middle School

#### Support, Professional Development, and Policies

- Implemented a new protocol for assessing online tools currently in use and established a process for requesting and vetting new digital resources that maintain student data security
- Created a [Digital Learning resources page](#) at the [Arlington Public Schools website](#)
- Published the [APS Digital Learning Resources](#) list at the [Digital Learning resources page](#)
- Piloted an online Google-based platform that gives teachers and staff access to dynamic student assessment data at the elementary level
- Provided staff after-school professional development taught by the Digital Literacy Team
- Hire 2, 1.0 positions that will integrate digital literacy and research skills
- Collected data from teachers and staff via [an online survey](#) to inform future decisions regarding functionality and purchase of devices

#### Hardware

- **Elementary:** Expanded the purchase of devices that provide each K-2 classroom teacher access to an iPad cart and each 3-5 teacher access to a Chromebook cart. Installed a new Chromebook cart and devices, projector, audio equipment, and ELMO document cameras in six new classrooms at Hardy School. Replaced older projectors with HDMI ceiling mounted projectors.
- **Middle School:**
  - **Gibbs:** Purchased Chromebook cart and devices, projector, audio equipment, and ELMO document cameras, installed ceiling mounted HDMI ready projectors,

installed a state of the art building security system and voice-over IP communication that enhances the public address system

- **Ottoson:** Purchased additional Chromebook carts to put 2 carts in every grade cluster, redeployed an iPad cart for the art and music department. Replaced older projectors with ceiling-mounted HDMI projectors.
- **High School:** Replaced outdated computers in the: Music Technology Lab; Computer Science lab; the new Innovation Lab, which supports Computer Aided Drawing and Design (CADD), and Digital Photography Lab; purchased an iPad cart and chromebook cart for World Language Department; purchased 15 chromebooks for Social Studies Department; and upgraded the building security system. Replaced aging Citrix environment in the Learning Commons with 40 ChromeBoxes. Completed Phase 2 of teacher equipment upgrades by replacing older devices with 60 teacher Chromebooks and 20 MacBooks.

## **2019-2020 School Year**

### **Curriculum**

- Create and pilot a 5th grade standards-based digital literacy class
- Expand the Digital Citizenship pilot at all levels
- Explore and pilot emerging digital curriculum resources

### **Support, Professional Development, and Policies**

- Reevaluate digital literacy professional development
  - Use data from the after school PD sessions and surveys given during 2018 - 2019
  - Align professional development with grade-level standards in the [DLCS](#)
- Distribute the updated Responsible Use Policy (RUP) to families, teachers, and students
- Create Staff District Wide Social Media Policy
- Hire two Library Digital Literacy teachers

### **Hardware**

**District:** Continue replenishment program of student and teacher devices based upon the age of equipment, curriculum standards, format of instruction, funding, and learning objectives with the goal of remaining device agnostic.

**Elementary:** Replenish 3-5 grade level student devices at the Bishop, Brackett, Dallin, and Hardy Schools; replenish teacher devices at Stratton

## **2020-2021 School Year**

### **Curriculum**

- Full implementation of the K–12 Digital Citizenship curriculum
- Expand the 5th grade Digital Literacy class to additional grade(s)
- Explore and pilot emerging digital curriculum resources

### **Support, Professional Development, and Policies**

- Plan and expand the Digital Citizenship pilot at all levels
- Evaluate and revise professional development as needed based on [DLCS](#) standards
- Review and revise policies related to digital literacy and technology use as needed

### **Hardware**

**District:** Procure and install additional Internet Bandwidth for use District wide

#### **Elementary:**

- Replenish 3-5 grade level student devices at Peirce, Stratton, and Thompson Schools
- Replenish teacher devices at Brackett and Thompson

**Middle:** Replenish teacher devices at Ottoson

Projected Plans for

## **2021-2022 School Year**

### **Support, Professional Development, and Policies**

- Full implementation of digital citizenship curriculum K–12
- Evaluate and revise professional development as needed based on the [DLCS](#) standards

### **Hardware**

**Elementary:** Replenish teacher devices at Bishop, Hardy, Dallin, and Peirce

## **2022-2023 School Year**

### **Curriculum**

- Full implementation of digital citizenship curriculum K–12
- Evaluate and revise professional development as needed based on [DLCS](#) standards

## **Hardware**

**Elementary:** Assess and procure Grades K-2 student devices

**Gibbs School:** Replenish all student devices

**Middle School:** Replenish 7th and 8th grade student devices