

TECHNOLOGY PLAN EXECUTIVE SUMMARY

At the heart of building the capacity of the technology-using culture in the schools is a need to have access to reliable up-to-date technology at the point of need. When trying to use technology many teachers feel there is not enough access to enough technology that works reliably to risk the potential loss of limited instructional time. Since technology is a tool to assist with learning and productivity, the tool needs to be available and work easily into the everyday operations of staff and students or it becomes a burden to endure not an asset to learning. The International Society of Technology in Education (ISTE) developed these following essential conditions for leveraging technology for learning. They are:

ESSENTIAL CONDITIONS: Necessary Conditions to Effectively Leverage Technology for Learning (ISTE)

Shared Vision	Proactive leadership in developing a shared vision for educational technology among all education stakeholders including teachers and support staff, school and district administrators, teacher educators, students, parents, and the community
Empowered Leaders	Stakeholders at every level empowered to be leaders in effecting change.
Implementation Planning	A systematic plan aligned with a shared vision for school effectiveness and student learning through the infusion of information and communication technologies (ICT) and digital learning resources
Consistent and Adequate Funding	Ongoing funding to support technology infrastructure, personnel, digital resources, and staff development
Equitable Access	Robust and reliable access to current and emerging technologies and digital resources, with connectivity for all students, teachers, staff, and school leaders
Skilled Personnel	Educators, support staff, and other leaders skilled in the selection and effective use of appropriate ICT resources
Ongoing Professional Learning	Technology-related professional learning plans and opportunities with dedicated time to practice and share ideas
Technical Support	Consistent and reliable assistance for maintaining, renewing, and using ICT and digital learning resources
Curriculum Framework	Content standards and related digital curriculum resources that are aligned with and support digital-age learning and work
Student-Centered Learning	Planning, teaching, and assessment centered around the needs and abilities of students
Assessment and Evaluation	Continuous assessment of teaching, learning, and leadership, and evaluation of the use of ICT and digital resources
Engaged Communities	Partnerships and collaboration within communities to support and fund the use of ICT and digital resources
Support Policies	Policies, financial plans, accountability measures, and incentive structures to support the use of ICT and digital learning resources for learning and in district school operations
Supportive External Context	Policies and initiatives at the national, regional, and local levels to support schools and teacher preparation programs in effective implementation of technology for achieving curriculum and learning technology (ICT) standards

The Technology Plan for the Public Schools of Brookline outlines how to provide adequate and equitable access to technology for all school users including administration, teachers, students, specialists, and special programs (ie. Special education, libraries, music). It includes actions Brookline must take to create the

conditions that allow us to leverage technology for learning. The Plan is influenced by several guiding documents that include:

- ISTE ESSENTIAL CONDITIONS: Necessary Conditions to Effectively Leverage Technology for Learning
- MA DESE Local Technology Plan Guidelines for School Years 2010-2015
- MA STaR Chart 2010
- Public Schools of Brookline Strategic Plan
- Public Schools of Brookline Program Review Process
- 2010- PSB Special Budget Report on a school computers and the 5-year lifecycle maintenance plan

The plan is written with the support of the Data- Technology Advisory Committee (DTAC) and Amy Martin, Director of Program Review and Grants

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CREATING THE CONDITIONS

The current model of technology access in the schools addresses much of the need for access through shared, flexible resources. On the horizon, learning and technology are continuing to make shifts that make it imperative that a one-to-one initiative or Bring your Own Device will be a commonplace fixture in schools. In order to be prepared for this even greater shift, the district needs to continue its investment in technologies that will unite and facilitate multiple types of devices in support of learning and productivity. The technology plan addresses these components to be ready to welcome this shift with a supportive learning environment for equitable access for all students and teachers.

The Technology Framework for Schools includes:

1. **A Robust Wireless Infrastructure in all Schools** - in addition to the current wired network backbone. (see page 15)
2. **Computers for all Professional Staff** – strategically getting the right computer to the right user to maximize productivity. Many staff, but not all, have received a laptop computer over the last few years. Our staffing footprint (including specialists and special educators) has created even more demand. Additionally all computers for staff must be supported by a 5-year computer lifecycle program.
3. **Support for School Based Technology Models** – variety of models to provide flexible access opportunities
 - a. **Basic K-8 Classroom Technology** (what every classroom needs at a minimum) the starting point) \$3550- 8950/classroom with Mounted Projector
 - i. Laptop (or appropriate computer) for teacher (see #2- Computers for all Professional Staff)
 - ii. Two desktops for student
 - iii. Projector (preferably mounted- current standard is a Smartboard 685ix)
 - iv. Access to peripherals like document cameras and listening centers
 - v. Access to shared printing
 - vi. Set of speakers
 - vii. 2 sets of headphones
 - b. **BHS basic classroom**
 - i. Laptop (or appropriate computer) for teacher (see #2- Computers for all Professional Staff)
 - ii. Projectors (preferably mounted)
 - iii. Access to peripherals
 - iv. Additional needs outlined by department
 - c. **Computer Labs.** They are used as a tool for teachers, direct teaching classes, training locations, afterschool programs, and assessment centers.
 - d. **Mobile Solutions** - carts of shared laptops, iPads, etc. – dependent upon robust wireless. New wireless at HS will create an increase in requests more mobile solutions at BHS as well as an increase in student owned personal devices.
 - e. **Learning Center and Special Program needs** - specialized technology tools for groups of learners
 - f. **AV and Peripherals-** Projectors, scanners, printers, cameras, video, recording tools to extend the power of educational computing.

- g. **Specific Content Curriculum Needs** - Outside the general technology landscape may include specific tools/systems specific to certain content areas.
- 4. **Learning Management System** - to provide teachers with a common set of tools to support learning in a variety of formats. Platform may be used for blended learning, online self-directed tutorial, professional development delivery.
- 5. **District Portfolio of On-line Content** - includes access to subscription content and tools for learning. The portfolio includes access to content we purchase to support the curriculum and content provided free by teachers
- 6. **Professional Development- Workshops and Trainings** (includes online), conferences, user-groups, job-embedded just-in-time professional development (ETS)
- 7. **File storage** for teachers and students, K-12
 - a. provides access to files and tools for collaboration and communication
 - b. archiving/portfolio capacity
 - c. 24/7 access
 - d. supportive of a Bring Your Own Device (BYOD)
- 8. **Data Management and Evaluation/Assessment Systems**
 - a. X2 for Student Information Management including Special Ed, Parent Portal, and Special Education
 - b. Tools/Systems for local assessment and reporting
- 9. **Innovation Program** – process for addressing donations, new ideas, etc.
- 10. **Life Cycle Maintenance Plan** – to ensure that we are able to sustain the inventory of the technology investments we make. The more we do, the life cycle maintenance has to match it. Lifecycle budget should address:
 - a. Desktop/laptop computers
 - b. *Servers
 - c. *Switches
 - d. *Ongoing Software Maintenance Agreements- X2, Destiny, Blackboard Connect, First Class,
- 11. **Bandwidth Services:** To ensure that there is enough bandwidth to meet increasing need and multimedia content.