

BPS Department of Educational Technology

Digital Literacy and Computer Science Overview

OUR VISION

We believe technology will enhance the quality and scope of teaching and learning. Our goal is to ensure all educators and students receive equitable access to technology. Technology can be integrated across curricula for meaningful instruction through the expanded use of digital media, assistive technologies, and universally designed instruction. This environment will provide countless opportunities to fully integrate technology in the education process.

DIGITAL LITERACY & COMPUTER SCIENCE AT BPS

In the early elementary school years students begin to use the tools of learning: books, pencils, paper and computers. Student access and engage information with technology and learn the technology and digital literacy skills needed to support critical thinking and creative expression. Barnstable provides incremental and age appropriate lessons and activities that support the implementation of the MA DESE Digital Literacy and Computer Science frameworks.

At Barnstable Intermediate School students students engage in a more robust DL&CS curriculum using a variety of tools to create media rich projects, explore science career pathways, and coding and robotics skills.

Barnstable High School's programs offer more specialized classes and programs as technology is integral to many careers. A sample of offerings include: Computer Science, Robotics, Engineering, Graphic Arts, Broadcasting, Music Tech, Project Lead the Way, BHS IT Help Desk, Environmental Science & Technology and, Water Technology.

FRAMEWORKS

To learn more about the MA DESE Digital Literacy and Computer Science frameworks please visit <http://www.doe.mass.edu/stem/dlcs/>



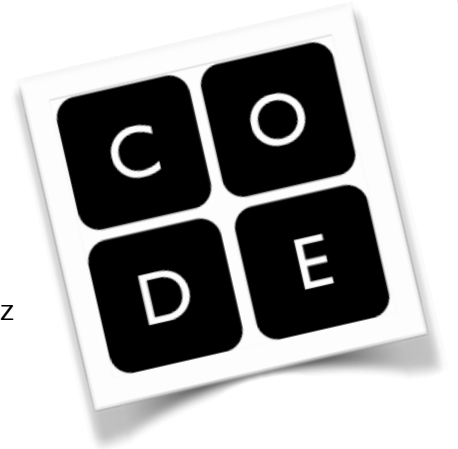
BPS Department of Educational Technology

Digital Literacy and Computer Science

Grades K-5

DIGITAL LITERACY & CITIZENSHIP

Students learn about digital literacy and being safe responsible users of technology and information. Our curriculum is built around the material from Common Sense. Common Sense has many great resources for schools and families. To learn more visit <http://tiny.cc/cbpviz>



COMPUTER SCIENCE

Students learn how to provide input using a mouse, trackpad, and keyboard. All students have access to Typing Club at school and at home. Visit Typing Club at barnstable.typingclub.com. Students explore the fundamentals of computer science, problem solving, logical reasoning, the iterative design process, and perseverance through coding. To learn more visit code.org.

TECHNOLOGY

At Barnstable we believe in choosing the right tool for the job at hand. Students use a variety of technologies throughout their years at BPS exploring their potential.

- ★ K-2 10 iPads per classroom
- ★ Grade 3 is 1:1 chromebooks
- ★ Grade 4-5 are 2:1 chromebooks
- ★ Grade 4-5 5 iPads per classrooms
- ★ K-5 Technology Labs utilize chromebooks
- ★ Technology students explore BeeBots and Dash Robots
- ★ G-Suite for Education

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Digital Literacy and Computer Science

Grades 6-8

DIGITAL LITERACY & CITIZENSHIP

Students continue their studies of digital literacy and citizenship. Using curriculum from Common Sense we teach students to learn how to better balance their technology use and time. We also focus developing safe and responsible participation in digital communication as both consumers and creative producers of digital content. Students work on creation and productivity tools such as G-Suite and Adobe Spark.

COMPUTER SCIENCE

Students explore the discipline of computer science and possible career pathways in CS related fields. Using a variety of curriculum materials including those found at code.org students apply skills in a variety of projects. Projects include programming robots such as Spheros, Cues and MicroBits to complete tasks and building step counters. Clubs are available for students to further explore these concepts: Robotics, Broadcasting, and Girls Who Code.



TECHNOLOGY

At Barnstable we believe in choosing the right tool for the job at hand. Students use a variety of technologies through out their years at BPS exploring their potential.



- ★ 2:1 ratio students to chromebooks
- ★ Technology classrooms utilize chromebooks, iPads, iMacs, windows laptops
- ★ Cues, Rovers, and Microbits
- ★ Podcasters
- ★ Library has 30 Windows laptops
- ★ Room 114 has Chromeboxes



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BHS Maker Space in the Innovation Learning Library

MAKER SPACE

Barnstable High School Library renovations were completed in February 2019. The library consists of technology rich flexible learning spaces including a new maker space area. The large collaborative room houses 3D printers, iPads, robots, iMacs, a Lego wall, and arts and crafts supplies. There is an Augmented/Virtual Reality room with Oculus VIVE and a green screen room with state of the art Padcasters for video recording. The staff and students are supported by our BHS IT help desk students.

1:1 PROGRAM

Beginning February 2019 BHS issued 1800 chromebooks to students in grades 8 -12. This ensures equitable access to technology for all our students and allows our teachers to extend their classes beyond their classrooms. Students now have access to all their learning resources whenever and wherever needed. We are preparing our students to learn, create and work in a technology rich environment.

A VARIETY OF TECHNOLOGY

BHS Library	Windows	iPads
Music Tech	iMacs	
Art	iMacs	
Computer Science	Windows	Tablets
B2BTV	iMacs	iPads
AR/VR	Oculus Vive	360 Cameras
Maker Space	3D printers	iPads
	Various Robots	iMacs
Green Room	Padcasters	iPad Pros