

District 26 Vision for Technology

District 26 is committed to ensuring equity and access for all students in meeting the digital demands of the 21st century and the Common Core Learning Standards (CCLS) so that all school communities are:

- Building and communicating a shared, community-based vision that prepares students to live, learn, and work in the 21st century
- Creating powerful learning environments using research-based strategies that effectively use technology
- Effectively integrating information and technology literacy standards into all areas of the school curriculum through a collaborative model
- Providing ongoing and sustained professional development for all staff in order to achieve educator proficiency with effective teaching and learning practices
- Using adequate funding to ensure adequate technology resources
- Ensuring equitable and robust access to technology for all students, staff, and community members

Specifically, we envision that technology is available and effectively supported for all students, staff, and parents/guardians:

- To provide universal access to information
- To meet the curricular needs of all learners
- To provide access to the general curriculum
- To refine critical thinking skills, foster creativity, and build collaboration
- To provide a medium for expression and communication
- To develop ethical values with regard to use of technology
- To collect, assess, and share performance information
- To improve the effectiveness of administrative tasks
- To provide skills and proficiencies necessary for college and careers in the 21st century
- To improve student achievement

To be effective in the 21st century, students and staff must be able to exhibit a range of functional and critical thinking skills related to information, media and technology. Domain 2 of the NYCDOE STEM Framework asks us to provide a well-defined STEM education program that:

- “promotes cognitively challenging, relevant, and authentic learning experiences that encourage students to apply STEM concepts to real-world situations (STEM Framework, 2.1, Academic Rigor and Instructional Quality)
- “establishes a culture of inquiry that promotes and supports the development of innovative thinking, engineering design, scientific and digital literacy, computational thinking, problem solving, and 21st century skills, which align to State and Common Core Learning Standards” (STEM Framework, 2.2, STEM-centric Curriculum)
- “engages students in relevant and authentic STEM aligned assessments and consistently monitors student progress in order to guide and encourage student reflection and self-assessment” (STEM Framework, 2.3, Authentic Assessments)
- And “builds teacher content and pedagogical knowledge in order to support the successful implementation of STEM learning experiences” (STEM Framework, 2.4, Staff Capacity).

District 26 technology teachers, in collaboration with the Queens North Borough Field Support Center drafted benchmarks for our schools' technology curriculum that we aim to have all children meet by the end of Kindergarten through Eighth Grade.

District 26 Framework for Technology Instruction			
By the end of . . .	Digital Literacy Skills	Computer Science Skills	Some Suggested Programs
Kindergarten	Proper usage of computer equipment and mouse skills, basic word processing skills and keyboarding	Algorithms, sequencing	Code.org Course A, Word, Foos, Code-a-pillar, Robot Mouse, Tynker, Dash
First Grade	Word processing skills and keyboarding, uses of different programs (Internet, Word, Paint), internet safety	Algorithms, loops, debugging	Code.org Course B, Scratch for art, Word, KIBO (Kinder Lab Robotics), Tynker, Kodables
Second Grade	Strengthen word processing skills and keyboarding, Intro to multimedia presentations, internet search strategies	Block-based programming, algorithms, conditionals, pair programming	Code.org Course C, Continue to grow Scratch usage, Word, PowerPoint, Google
Third Grade	Multimedia presentations and keyboarding technique, local file management, intro to spreadsheet software	Block-based programming, algorithms, nested loops and conditionals, gathering and describing with data	Code.org Course D, Scratch, PowerPoint, Using Excel to create algorithms/Pixel Art
Fourth Grade	Strengthen multimedia presentations, spreadsheet software, shared file management systems (cloud-based), internet searching and citation	Block-based programming, algorithms, remixing, visualizing data	Code.org Course E, Scratch, PowerPoint, Excel, Google Apps for EDU, Internet Superheroes (Heromachine.com)
Fifth Grade	Strengthen spreadsheet software, complete keyboarding proficiency, mastery of different platforms for productivity (Microsoft, Apple, Google)	Block/text-based programming, analyzing algorithms, selecting data visualizations based on need, physical internet	Code.org Course F, Scratch, Excel, Code Combat, Pencil Code
Sixth Grade	Intro to multimedia editing (videos, audio files, digital images, web sites), cloud-based collaboration and internet research and citing sources, online behavior	Applications in content areas (algorithms, data), long term iterative project (game design), computer science history, text-based programming, web design and development (wireframing, html), robotics	iMovie, PhotoShop, Audacity, Vidcode, Photo editing (Pixlr.com, Gimp 2.8), CodeHS.org, Python/JavaScript, Scratch, GameStar Mechanic, Thimble

Seventh Grade/ Eighth Grade	Mastery of multimedia editing, evaluating online sources	Application in content areas (algorithms, data), long term iterative project, text-based programming, web design and development (css, javascript), robotics	Notepad ++, CodePen, CodeAcademy, Codesters.com, Sketch up CAD, Advanced Photo Shop, Bootstrap, Star Logo Nova, Python/JavaScript
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