



# Digital Technology eCTE Resources

The following resources are related to the [Advance CTE Digital Tech Career Cluster](#). This Cluster concentrates on the development of digital systems for communication, data storage with technologies such as AI, data analytics, and cybersecurity.

**Amazon Future Computer Science:** [amazonfutureengineer.com/middle-school](https://amazonfutureengineer.com/middle-school)

(Grades 6-8) Free computer science curriculum and teacher training.

**Arizona Department of Education Computer Science** [azed.gov/](https://azed.gov/)

(Grades K-12) Standards provide a foundation of computer science knowledge.

**Arizona Department of Education EdTech** [azed.gov/standards-education-technology](https://azed.gov/standards-education-technology)

(Grades K-12) Standards to foster technologically literate informed digital citizens.

**Ascend Education** [ascendeducation.com/k-12](https://ascendeducation.com/k-12)

(Grades K-12) Curriculum for purchase for IT fundamentals, hardware and software basics, Microsoft Office, networking, and cybersecurity basics.

**Code.org** [studio.code.org/courses](https://studio.code.org/courses)

(Grades K-8) Free lessons in computer science fundamentals and discoveries.

**Computer Science (CS) for All** [csforall.org/curriculum-directory](https://csforall.org/curriculum-directory)

(Grades 3-8) Free curriculum designed for students to learn computer science/computational skills.

**Digital Citizenship Curriculum** [commonsense.org/](https://commonsense.org/)

(Grades K-8) Lesson plans prepare students to take ownership of their digital lives.

**GenTech Kids Tech in Schools** [gentechsupport.com/kidstech-in-schools/](https://gentechsupport.com/kidstech-in-schools/)

(Grades K-8) Curriculum includes Coding, Robotics/Automation, Microcomputers/Electronics, 3D Modeling/CAD, Computer Hardware/Software, and Cyber Security. Technically proficient instructors, equipment, robotics, and software are provided.

**Girls Who Code** [girlswhocode.com/programs](https://girlswhocode.com/programs)

(Grades 3-12) Free coding curriculum with emphasis on social-emotional development.

**Google Education Applied Digital Skills** [applied-digital-skills](https://applied-digital-skills.com/)

(Grades 6-12) Free project-based learning curriculum for students to develop digital skills to solve real-world problems.

**Google Education Computer Science** [csfirst.withgoogle.com/s/en/home](https://csfirst.withgoogle.com/s/en/home)

(Grades 4-8) Free hands-on learning with video tutorials and block-based coding in Scratch.

**Information and Communication Technology (ICT)** [ictcertified.com](https://ictcertified.com)

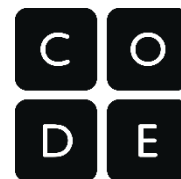
(Grades 5-8) Courses focus on developing technological skillsets, industry certifications, and career exploration.

**Microsoft Microbit** [makecode.microbit.org/](https://makecode.microbit.org/)

(Grades 4-8) Students learn Python, Block, and Java Script by interacting with fun online tutorials.

**Possible Futures Career Exploration** [Information Technology](https://information-technology.com/)

(Grades 6-10) Free lessons on the fundamentals of computer programming. Additional courses on digital citizenship, digital threats, ciphers, digital security, and networking protocols



**Project Lead the Way Computer Science for Innovators** [pltw.org/curriculum](http://pltw.org/curriculum)

(Grades 6-8) Computer science concepts and skills by creating personally relevant, tangible, and shareable projects.

**Scratch** [scratch.mit.edu/educators](http://scratch.mit.edu/educators)

(Grades K-9) Free coding concept lessons using a simple interface with an emphasis on computational thinking and problem-solving skills.



**TestOut Catalogue** [w3.testout.com/courseware-catalog](http://w3.testout.com/courseware-catalog)

(Grades 6-12) Free lessons in keyboarding, digital citizenship, computer basics, intro to word processing, spreadsheets, and presentations curriculum.



**Tinker CAD** [tinkercad.com/lessonplans](http://tinkercad.com/lessonplans)

(Grades 5-12) Free lessons to introduce 3D design, electronics, and coding block concepts in a simple visual interface.



**Typing.com** [typing.com/](http://typing.com/)

(Grades K-8) Free auto-graded lessons in keyboarding, digital citizenship, and coding lessons. Set up a virtual classroom to monitor student progress.

**ZSpace Computer Science, Web and Game Design** [zspace.com/solutions/stem](http://zspace.com/solutions/stem)

(Grades K-8) Block-based programming, computational thinking, and core digital citizenship principles.

