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.*

A Possible Futures Career Exploration *Information Technology*
(Grades 6-10) Free lessons on the fundamentals of computer programming. Additional courses on digital citizenship, digital threats, ciphers, digital security, and networking protocols

Amazon Future Computer Science: *amazonfutureengineer.com/middle-school*
(Grades 6-8) Free computer science curriculum and teacher training.

Arizona Department of Education Computer Science and EdTech Standards
(Grades K-12) *Computer Science* and *EdTech*.

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

Computer Science (CS) for All *csforall.org/curriculum directory*
(Grades 3-8) Free curriculum designed for students to learn computer science/computational skills.

Digital Citizenship Curriculum *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/*
(Grades K-8) Curriculum includes Coding, Robotics/Automation, Microcomputers/Electronics, 3D Modeling/CAD, Computer Hardware/Software, and Cyber Security.

Girls Who Code *girlswhocode.com/programs*
(Grades 3-12) Free coding curriculum with emphasis on social-emotional development.

Google Education Applied Digital Skills and Computer Science
(Grades 4-12) Free project-based learning curriculum for students to develop digital skills to solve real-world problems. *applied digital skills* and *csfirst.withgoogle.com/s/en/home*

Information and Communication Technology (ICT) *ictcertified.com*
(Grades 5-8) Courses focus on developing technological skillsets, industry certifications, and career exploration.

Microsoft Microbit *makecode.microbit.org/*
(Grades 4-8) Learn Python, Block, and Java Script by interacting with fun online tutorials.

Project Lead the Way Computer Science for Innovators *pltw.org/curriculum*
(Grades 6-8) Computer science concepts and skills by creating personally relevant, tangible, and shareable projects.

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

Tinker CAD *tinkercad.com/lessonplans*
(Grades 5-12) Free lessons to introduce 3D design, electronics, and coding block concepts in a simple visual interface.

TryEngineering (IEEE) *tryengineering.org/explore-resources*
Free computer-science, binary basics, AI, and machine learning resources.

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

ZSpace Computer Science, Web and Game Design *zspace.com/solutions/stem*
(Grades K-8) Block-based programming, computational thinking, and core digital citizenship principles.