

Technology (K-8 Career Literacy)





The following resources are related to careers in the Information Technology career cluster. <u>Click here</u> for a complete list of careers by cluster.

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

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.

AZ Computer Science Standards <u>azed.gov/standards-computer-science</u>

(Grades K-12) Connect your lessons to the AZ standards to provide a foundation of computer science knowledge, problem-solving, and critical thinking.

Code.org studio.code.org/courses

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

Code.org – Artificial Intelligence (AI) for Teachers <u>code.org/ai/pl/101</u> (K-8 Teachers) Foundational online learning for teachers.

Computer Science (CS) for All csforall.org/curriculum directory

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

GenTech Kids Tech in Schools gentechsupport.com/kidstech-in-schools/

(Grades K-8) Technically proficient instructors, all equipment, robotics, and software provided. The curriculum includes Coding, Robotics/Automation, Microcomputers/Electronics, 3D Modeling/CAD, Computer Hardware/Software, and Cyber Security. Contact <u>debbie@gentechsupport.com</u>

Girls Who Code girlswhocode.com/programs

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

Google Education Applied Digital Skills applieddigitalskills.withgoogle.com/

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

Google Education Computer Science <u>csfirst.withgoogle.com/s/en/home</u>

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

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) Students learn Python, Block, and Java Script by interacting with fun online tutorials.



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Possible Futures Career Exploration <u>STEMploration Information Technology</u>

(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

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

Scratch <u>scratch.mit.edu/educators</u>

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

TestOut Catalogue <u>w3.testout.com/courseware-catalog</u>

(**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.

Typing.com typing.com/

(Grades K-8) Free lessons in keyboarding, digital citizenship, and coding lessons that are auto-graded. Teachers can set up virtual classrooms to monitor progress.

ZSpace Computer Science Essentials zspace.com/solutions/stem

(Grades K-5) Block-based programming, computational thinking, and core digital citizenship principles.

ZSpace Web and Game Design zspace.com/solutions/stem

(Grades 6-8) Virtual basic training in web development an introductory game dev course.



azed.gov/cte/k-8-career-literacy