

Computer Science Discoveries Curriculum Resources

Potential learning activities associated with this course are hands-on; curriculum resources and activity guides are subject to selected projects and availability.

Primary course resources include, but are not limited to, the following:

Print/Digital Curriculum Resources:

<https://studio.code.org/courses/csd-2019>

Primary Online Curriculum Resources:

<https://www.youtube.com/watch?v=z7RaFPT3DTE&feature=youtu.be>

- The Problem Solving Process

<https://studio.code.org/s/csd1-2019/stage/4/puzzle/2>

- What Makes A Computer, A Computer?

Broad Learning Standards:

- ❖ Students identify input, output, storage, and processing as four essential components of a computing device and explain the role that each component takes when computers are used to solve informational problems.
- ❖ Students define and use a structured problem-solving process, identifying key components of the process and how they apply to various problems. Students use multiple strategies to approach problems, iteratively improving on the solution through collaboration and reflection.
- ❖ Students create a digital artifact that uses multiple computer languages to control the structure and style of their content and understand their responsibilities as both creators and consumers of digital media
- ❖ Students create an interactive animation or game that includes basic programming concepts such as control structures, variables, user input, and randomness
- ❖ Students know how to develop a paper and digital prototypes, gather and respond to feedback about a prototype, and consider ways different user interfaces do or do not affect the usability of their apps. Students understand roles in software development, such as product management, marketing, design, and testing, and to use what they have learned as a tool for social impact