



Ohio's Learning Standards

Computer Science Grade 1

ADOPTED DECEMBER 2018

Grade 1

COMPUTING SYSTEMS

Devices

CS.D.1.a Operate commonly used devices and their components to perform a variety of tasks.

Hardware and Software

CS.HS.1.a With guidance, describe and use hardware and software necessary for accomplishing a task.

Troubleshooting

CS.T.1.a With guidance, use problem solving strategies to troubleshoot a problem.

NETWORKS AND THE INTERNET

Networking

NI.N.1.a Create a list of ways information can be shared electronically to gain a deeper understanding of how information is transmitted (e.g., email, social media).

NI.N.1.b Recognize that computing devices can be connected to retrieve information from the global community.

Cybersecurity

NI.C.1.a Identify and use secure practices (e.g., passwords) to protect private information.

DATA AND ANALYSIS

Data Collection and Storage

DA.DCS.1.a With guidance, collect and organize data to retrieve for later use.

DA.DCS.1.b With guidance, demonstrate how data can be collected and stored in a variety of ways.

Visualization and Communication

DA.VC.1.a Organize and present data in various formats to make observations.

Inference and Modeling

DA.IM.1.a Create and explain a model of an object or process that includes patterns and key elements.

ALGORITHMIC THINKING AND PROGRAMMING

Algorithms

ATP.A.1.a With guidance, model a real-world process by constructing and following step-by-step directions (i.e., algorithms) to complete tasks.

Variables and Data Representation

ATP.VDR.1.a Categorize a group of items (e.g., numbers, symbols or pictures) based on the attributes or actions of each item, with or without a computing device.

Control Structures

ATP.CS.1.a With guidance, model a sequence of instructions (i.e., program) that includes repetition (i.e., loops) to solve a problem or express ideas.

Modularity

ATP.M.1.a With guidance, break down (i.e., decompose) a series of steps and separate the necessary from the unnecessary steps to create a precise sequence of instructions to solve a problem or express an idea.

Program Development

ATP.PD.1.a With guidance, plan and create an artifact to illustrate thoughts, ideas and problems in a sequential (step-by-step) manner (e.g., story map, storyboard, sequential graphic organizer).

ATP.PD.1.b With guidance, identify and fix (i.e., debug) a multi-step process that includes sequencing.

IMPACTS OF COMPUTING

Culture

IC.Cu.1.a Discuss different technologies and their impact on everyday life.

IC.Cu.1.b Identify how people use and are impacted by many types of technologies in their daily work and personal lives.

Social Interactions

IC.SI.1.a With guidance, describe safe and responsible behaviors for the use of information and technology.

Safety, Law and Ethics

IC.SLE.1.a With guidance, discuss appropriate and ethical uses of technology to guide informed decision.