



Ohio's Learning Standards

Computer Science, Kindergarten ADOPTED 2022

Kindergarten Standards

COMPUTING SYSTEMS

Devices

CS.D.K.a With guidance, identify and label commonly used devices and their components, explaining their connection to different tasks, to perform a variety of tasks.

Hardware and Software

CS.HS.K.a With guidance and support, identify and use hardware and software necessary for accomplishing a task.

Troubleshooting

CS.T.K.a With guidance and support, use problem-solving strategies to troubleshoot a problem.

NETWORKS AND THE INTERNET

Networking

NI.N.K.a With guidance and support, 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).

Cybersecurity

NI.C.K.a With guidance and support, identify and use secure practices (e.g., passwords) to protect private information.

Internet of Things (IoT)

NI.IOT.K.a With guidance and support, identify what smart devices are to recognize what devices are able to connect to the internet.

NI.IOT.K.b With guidance and support, recognize how devices connect and exchange data over the internet to demonstrate how information is shared.

DATA AND ANALYSIS

Data Collection and Storage

DA.DCS.K.a Identify data to collect and sort.

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

Visualization and Communication

DA.VC.K.a With guidance, organize and present data in various formats to make observations.

Inference and Modeling

DA.IM.K.a With guidance, create a model of an object or process to identify patterns.

ALGORITHMIC THINKING AND PROGRAMMING

Algorithms

ATP.A.K.a With guidance and support, 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.K.a Recognize that a group of items (e.g., numbers, symbols or pictures) can be used to represent data.

Control Structures

ATP.CS.K.a With guidance and support, model a sequence of instructions (i.e., program) with a beginning, middle and end to solve a problem or express an idea.

Program Development

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

ARTIFICIAL INTELLIGENCE

Perception

AI.P.K.a With guidance and support, locate sensors on computers, robots and intelligent appliances to understand that devices use sensors to gather information.

AI.P.K.b With guidance and support, access intelligent agents to demonstrate how they work.

Representation & Reasoning

AI.RR.K.a With guidance and support, use a simple decision tree to make a decision to visually and explicitly represent decisions and decision-making.

Machine Learning

AI.ML.K.a With guidance and support, use a classifier that recognizes drawings to see if a program can guess what they are drawing.

Natural Interactions

AI.NI.K.a With guidance and support, identify how computers can recognize different humans using some form of recognition software to see how computers interact with humans.

Societal Impacts

AI.SI.K.a With guidance and support, locate AI applications used in daily life to understand how humans use AI.

AI.SI.K.b Discuss if artificial intelligence is good or bad (see impacts of computing).

IMPACTS OF COMPUTING**Culture**

IC.Cu.K.a With guidance and support, identify technologies that impact one's own everyday life.

IC.Cu.K.b With guidance and support, recognize different ways computing devices are used regularly to understand technology's impact on one's own daily life.

Social Interactions

IC.SI.K.a With guidance and support, identify and use safe and responsible behaviors concerning information and technology.

Safety, Law and Ethics

IC.SLE.K.a With guidance, discuss appropriate uses of technology to support informed decisions.

IC.SLE.K.b With guidance and support, discuss examples of appropriate and inappropriate behavior online, including cyberbullying, and the steps to keep yourself and others safe and out of harm's way.