

Kindergarten

COMPUTING SYSTEMS CS

D. Devices CS.D

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

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

- a With guidance and support, use problem-solving strategies to troubleshoot a problem. CS.T.K.A
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NETWORKS AND THE INTERNET NI

N. Networking NI.N

- 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). NI.N.K.A
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C. Cybersecurity NI.C

- a With guidance and support, identify and use secure practices (e.g., passwords) to protect private information. NI.C.K.A
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IOT. Internet of Things (IoT) NI.IOT

- a With guidance and support, identify what smart devices are to recognize what devices are able to connect to the internet. NI.IOT.K.A
 - b With guidance and support, recognize how devices connect and exchange data over the internet to demonstrate how information is shared. NI.IOT.K.B
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DATA AND ANALYSIS DA

DCS. Data Collection and Storage DA.DCS

- a Identify data to collect and sort. DA.DCS.K.A
 - b With guidance and support, demonstrate how data can be collected and stored in a variety of ways. DA.DCS.K.B
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VC. Visualization and Communication DA.VC

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

IM. Inference and Modeling DA.IM

- a With guidance, create a model of an object or process to identify patterns. DA.IM.K.A
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**ALGORITHMIC THINKING
AND PROGRAMMING** ATP**A. Algorithms** ATP.A

- a With guidance and support, model a real-world process by constructing and following step-by-step directions (i.e., algorithms) to complete tasks. ATP.A.K.A
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VDR. Variables and Data Representation ATP.VDR

- a Recognize that a group of items (e.g., numbers, symbols or pictures) can be used to represent data. ATP.VDR.K.A
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CS. Control Structures ATP.CS

- 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. ATP.CS.K.A
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PD. Program Development ATP.PD

- 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). ATP.PD.K.A
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**ARTIFICIAL
INTELLIGENCE** AI**P. Perception** AI.P

- 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.A
 - b With guidance and support, access intelligent agents to demonstrate how they work. AI.P.K.B
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RR. Representation & Reasoning AI.RR

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

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

- 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. AI.NI.K.A

SI. Societal Impact s AI.SI

- a With guidance and support , locate AI applications used in daily life to understand how humans use AI. AI.SI.K.A
 - b Discuss if artificial intelligence is good or bad (see impacts of computing). AI.SI.K.B
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**IMPACTS OF
COMPUTING** IC**Cu. Culture** IC.CU

- a With guidance and support, identify technologies that impact one's own everyday life. IC.CU.K.A
 - b With guidance and support, recognize different ways computing devices are used regularly to understand technology's impact on one's own daily life. IC.CU.K.B
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SI. Social Interactions IC.SI

- a With guidance and support, identify and use safe and responsible behaviors concerning information and technology. IC.SI.K.A
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SLE. Safety, Law and Ethics IC.SLE

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