Kansas Computer Science

Grade K

Computing Systems CS

D. Devices D

1 Demonstrate how to operate a variety of computing devices. K.CS.D.01

HS. Hardware and Software HS

1 Use appropriate terminology to locate and identify common computing devices and components in a variety of environments (e.g. turn on, navigate, open/close programs/apps). K.CS.HS.01

2 Identify and use software that controls computing devices (e.g. programs, browsers, websites, and applications). K.CS.HS.02

IO. Input and Output IO

1 Identify and apply basic input/output skills. K.CS.IO.01

a Input (keyboarding, mouse, touchscreen, voice, camera, robotics, interactive board) K.CS.IO.01.A

b Output (monitor, screen, printer, robotics, audio). K.CS.IO.01.B

T. Troubleshooting T

1 Recognize that computing systems might not work as expected and use accurate terminology to identify simple hardware or software problems (e.g. volume turned down on headphones, monitor turned off). K.CS.T.01

Networks & the Internet NI

NCO. Network Communication & Organization NCO

1 Recognize and use computing devices to connect with people or other devices using a network to communicate, access, and share information as a class (e.g. the internet, video conferencing, email, file transfer). K.NI.NCO.01

C. Cybersecurity C

1 Use a form of secure access to protect private information and discuss the effects of password misuse (e.g. logging into a device, educational websites, authentication, thumbprint recognition). K.NI.C.01

Data Analysis DA

S. Storage S

1 With guidance, demonstrate that computing devices can save information as data that can be searched, modified, and saved or deleted (e.g. save photos, files, or videos). K.DA.S.01

C. Collection C

1 Students will learn how data about themselves and the world around them is collected, used, and organized in a meaningful way. K.DA.C.01

CVT. Visualization & Transformation CVT

1 Students represent collected data in a visual way through a computing device (e.g. charts, graphs, tables). K.DA.CVT.01

IM. Inference and Models IM

1 Students look for patterns in data, make predictions, make a model, and draw conclusions (e.g. make predictions on weather data, butterfly life cycle, etc.) and present in a picture graph or pattern. K.DA.IM.01

Algorithms and Programming AP

A. Algorithms A

1 Construct and execute algorithms (set of step-by-step instructions) that includes sequencing and simple loops to accomplish a task, both independently, collaboratively, with or without a computing device (e.g. verbally, kinesthetically, with robot devices or a programming language, block coding). K.AP.A.01

V. Variables V

1 With guidance, recognize that numbers represent different types of data using numbers or other symbols (e.g. thumbs up/thumbs down for yes/no color by number, arrows for direction, encoding/decoding a word using numbers or pictographs). K.AP.V.01

C. Control C

1 With guidance, independently or collaboratively create programs to accomplish tasks using a programming language, robot device, or unplugged activity that includes sequencing events and simple loops (e.g. emphasizing beginning, middle, and end; collaborative programming). K.AP.C.01

M. Modularity M

1 With guidance, decompose (break down) a larger problem into smaller subproblems or combine simple tasks to make something more complex. K.AP.M.01

PD. Program Development PD

1. Create a design document to illustrate thoughts, ideas and stories in a sequential manner (e.g. storyboard, mindmap, sequential graphic organizer). K.AP.PD.01
2. With guidance, give credit to ideas, creations, and solutions of others while developing algorithms (e.g. using code, music, pictures). K.AP.PD.02
3. With guidance, independently or collaboratively construct, execute, and debug (identify and fix) algorithms using a programming language and or an unplugged activity that includes sequencing (e.g. use block based programming). K.AP.PD.03
4. Use correct terminology in the development of an algorithm to solve a simple problem (e.g. beginning, middle, end). K.AP.PD.04

Impacts of Computing IC

C. Culture C

1. Understand different ways in which types of technologies are used in your daily life. K.IC.C.01

SI. Social Interactions SI

1. With guidance identify appropriate manners while participating in an online environment. (Digital Citizenship - focus on Digital Literacy and Digital Etiquette) K.IC.SI.01

H. History H

1. Discuss examples of how computing technology has changed and improved the way people live, work, and interact. K.IC.H.01

SLE. Safety, Law, & Ethics SLE

1. Practice responsible digital citizenship (legal and ethical behaviors) in the use of technology systems and software. K.IC.SLE.01

CP. Community Partnerships CP

1. Understand that a wide range of jobs require knowledge or use of computer science. K.IC.CP.01