Maryland Computer Science

Grade 2

Computing Systems CS

D. Devices D

1 Compare and discuss preferences for applications/software with the same primary functionality. 2.CS.D.01

HS. Hardware & Software HS

1 Identify internal and external components of a computer system and their basic functions (e.g., hard drive and memory) as well as peripherals (e.g., printers, scanners, external hard drives) and external storage features and their uses (e.g., cloud storage). 2.CS.HS.01

T. Troubleshooting T

1 Identify and summarize basic troubleshooting techniques to solve basic hardware and software problems (e.g., turning off and on a device to restart, closing and reopening an application/program, turning on speakers). 2.CS.T.01

Networks and the Internet NI

NCO. Network Communication & Organization NCO

1 Recognize that by connecting computing devices together they can share information (e.g., printers, scanners, internet, display devices). 2.NI.NCO.01

C. Cybersecurity C

1 Identify differences between strong and weak passwords and explain the importance of choosing strong passwords to protect devices and information from unauthorized users. 2.NI.C.01

Data Analysis DA

S. Storage S

1 Create, copy, manipulate, and delete a file on a computing device. Identify the information stored as data 2.DA.S.01

CVT. Collection, Visualization & Transformation CVT

1 With guidance, collect, organize, and present the same data in a variety of visual ways (e.g., bar graph, pie chart, table, etc.) 2.DA.CVT.01

IM. Inference & Models IM

1 With guidance, collect, organize, present, and analyze data from a chart or graphical display (visualization) in order to make a prediction, with or without a computing device 2.DA.IM.01

Algorithms and Programming AP

A. Algorithms A

1 Model daily processes by creating and following algorithms (stepby-step lists of instructions) to complete tasks verbally, kinesthetically, via a programming language, or using a device. 2.AP.A.01

V. Variables V

1 Model the way programs store and manipulate grade-level data by using numbers or other symbols to represent information (e.g., encode or decode words using numbers, pictographs or symbols to letters, words, or direction). 2.AP.V.01

C. Control C

1 Create programs using a programming language, robot device, or unplugged activity that utilize sequencing and repetition to solve a problem or express creative ideas. 2.AP.C.01

M. Modularity M

Not addressed at this level

PD. Program Development PD

1 With guidance, create a grade level appropriate document to clarify the steps that will be needed to create a sequential program and can be used to check if the program functionality is correct. 2.AP.PD.01

2 Give attribution to ideas, solutions, and creations of others, verbally and written, while writing and developing programs. 2.AP.PD.02

3 Develop and debug programs that include sequencing and repetition to accomplish a task, through the use of a programming language and/or unplugged activity. 2.AP.PD.03

4 Use correct terminology (e.g., debug, program input/output, code, etc.) to explain the development of a program to solve a problem in an unplugged activity, handson manipulative, or programming language. 2.AP.PD.04

Impacts of Computing IC

C. Culture and Diversity C

1 Use grade-level appropriate language to identify and describe how people use a variety of technologies and applications in their daily work and personal lives and the impact of new technologies on daily life. 2.IC.C.01

SI. Social Interactions SI

1 Develop a code of conduct and explain responsible practices when participating online. Practice the code of conduct and identify and report inappropriate behavior. 2.IC.SI.01

SLE. Safety, Law & Ethics SLE

1 Keep login information private and log off devices appropriately. 2.IC.SLE.01