

# Grade 1

**Concept: Computing Systems (CS)** 1.CS

**D. Subconcept: Devices (D)** 1.CS.D

- 1 With teacher guidance, select and operate appropriate devices and software to perform a task. 1.CS.D.1

**HS. Subconcept: Hardware and Software (HS)** 1.CS.HS

- 1 Use appropriate terminology in identifying and describing the function of common physical components of computing systems. 1.CS.HS.1

**T. Subconcept: Troubleshooting (T)** 1.CS.T

- 1 Identify basic hardware and software problems using accurate terminology. 1.CS.T.1
- 2 With teacher guidance, begin to use basic troubleshooting strategies. 1.CS.T.2

**Concept: Networks and the Internet (NI)** 1.NI

**C. Subconcept: Cybersecurity (C)** 1.NI.C

- 1 Explain what passwords are and why we use them to protect personal information (e.g., name, location, phone number, home address) and keep it private. 1.NI.C.1

**NCO. Subconcept: Network, Communication, and Organization (NCO)** 1.NI.NCO

- 1 With teacher guidance, students discuss how computer networks can be used to connect people to other people, places, information, and ideas. 1.NI.NCO.1

**Concept: Data and Analysis (DA)** 1.DA

**CVT. Subconcept: Collection, Visualization and Transformation (CVT)** 1.DA.CVT

- 1 With teacher guidance, collect and transform data using digital devices; Display data for communication in various visual formats. 1.DA.CVT.1

**S. Subconcept: Storage (S)** 1.DA.S

- 1 Explain that a variety of data (e.g., music, video, images, and text) can be stored in and retrieved from a computing device. 1.DA.S.1

**IM. Subconcept: Inference and Models (IM)** 1.DA.IM

- 1 Identify patterns in data to make inferences or predictions. 1.DA.IM.1

**Concept: Algorithms and Programming (AP)** 1.AP

**A. Subconcept: Algorithms (A)** 1.AP.A

- 1 Model daily processes by following algorithms (sets of step-by-step instructions) to complete tasks. 1.AP.A.1

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**V. Subconcept: Variables (V)** 1.AP.V

- 1 Model the way programs store and manipulate data by using numbers or other symbols to represent information. 1.AP.V.1

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**C. Subconcept: Control (C)** 1.AP.C

- 1 Identify programs with sequences and simple loops, to express ideas or address a problem. 1.AP.C.1

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**M. Subconcept: Modularity (M)** 1.AP.M

- 1 Solve a problem by breaking it down into smaller parts. 1.AP.M.1

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**PD. Subconcept: Program Development (PD)** 1.AP.PD

- 1 With teacher assistance identify plans that describe a program's sequence of events, goals, and expected outcomes. 1.AP.PD.1
- 2 With teacher assistance, give attribution (credit) when using the ideas and creations of others while developing programs. 1.AP.PD.2
- 3 With teacher assistance, debug (identify and fix) errors in an algorithm or program that includes sequences and simple loops. 1.AP.PD.3
- 4 Using correct terminology, describe steps taken and choices made during program development. 1.AP.PD.4

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**Concept: Impacts of Computing (IC)** 1.IC

**C. Subconcept: Culture (C)** 1.IC.C

- 1 Discuss how people live and work before and after the implementation or adoption of new computing technology. 1.IC.C.1

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**SI. Subconcept: Social Interactions (SI)** 1.IC.SI

- 1 Work respectfully and responsibly with others online. 1.IC.SI.1

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**SLE. Subconcept: Safety, Law, and Ethics (SLE)** 1.IC.SLE

- 1 Keep login information private, and log off devices appropriately. 1.IC.SLE.1