Computer Science Standards

Kindergarten

# **Computing Systems**

## Devices

* **K.CS.D.01** With guidance, follow directions and make choices while using computing devices to perform a variety of tasks.

## Hardware and Software

* **K.CS.HS.01** Use accurate terminology to locate and identify common computing devices and components, in a variety of environments (e.g., laptop, tablet, mouse).

## Troubleshooting

* **K.CS.T.01** 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).

# **Network and the Internet**

## Network Communication and Organization

* **K.NI.NCO.01** Recognize that computing devices can be connected together.

## Cybersecurity

* **K.NI.C.01** Discuss what passwords are and why we do not share them with others. With guidance, use passwords to access technological devices, apps, etc.

# **Data Analysis**

## Storage

* **K.DA.S.01** Identify types of data from our everyday lives and computing devices (e.g., digital images, videos, apps, documents)

## Collection, Visualization and Transformation

* **K.DA.CVT.01** With guidance, collect data and present it visually.

## Inference and Models

* **K.DA.IM.01** With guidance, draw conclusions and make predictions based on picture graphs or patterns (e.g., make predictions based on weather data presented in a picture graph; complete a pattern).

# **Algorithms and Programming**

## Algorithms

* **K.AP.A.01** With guidance, model daily processes and follow algorithms (sets of step‐by‐step instructions) to complete tasks verbally, kinesthetically, with robot devices, or a programing language.

## Variables

* **K.AP.V.01** With guidance, model and represent grade level appropriate data (e.g., print, numbers, kinesthetic movement, symbols, and robot manipulatives).

## Control

* **K.AP.C.01** With guidance, create programs to accomplish tasks as a means of creative expression using a programming language, robot device or unplugged activity, either independently or collaboratively, including sequencing, emphasizing the beginning, middle, and end.

## Modularity

* **K.AP.M.01** With guidance, decompose (break down) the steps needed to solve a problem into a precise sequence of instructions.

## Program Development

* **K.AP.PD.01** With guidance, create a grade level appropriate document to illustrate thoughts, ideas, and stories in a sequential (step‐by‐step) manner (e.g., story map, storyboard, and sequential graphic organizer).
* **K.AP.PD.02** Independently or with guidance give credit to ideas, creations and solutions of others while writing and/or developing programs.
* **K.AP.PD.03** Independently and collaboratively, identify and correct errors in an algorithm that includes sequencing and repeated procedures using a programming language or unplugged activities.
* **K.AP.PD.04** Use correct terminology (first, second...) in the development of an algorithm to solve a simple problem

# **Community, Global and Ethical Impacts**

## Culture

* **K.CGEI.C.01** List different ways in which computing devices are used in your daily life.

## Social Interactions

* **K.CGEI.SI.01** With guidance, identify appropriate manners while participating in a digital community.

## Safety, Law and Ethics

* **K.CGEI.SLE.01** With guidance, keep log in information private, and log off of devices appropriately