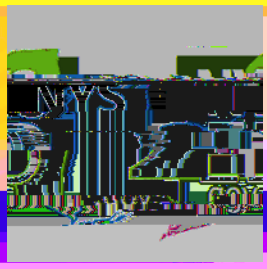
K-12 Computer Science and Digital Fluency Learning Standards



Grades K-1

New York State Education Department

K-12 Computer Science and Digital Fluency Learning Standards

Contents

Concept Areas

IMPACTS OF COMPUTING		
Society	**K-1.IC.1** Identify and discuss how tasks are accomplished with and without computing technology.	**Clarifying Statement** Common tasks include sending a letter by email vs. post, taking a picture with a smart phone vs. camera, buying something with an app vs. with cash at a store.
	K-1.IC.2 Identify and explain classroom and home rules related to computing technologies and digital information.	**Clarifying Statement** Rules could include when it's okay to use a device, what programs or apps are okay to use, how to treat the equipment, etc.
Ethics	**K-1.IC.3** Identify computing technologies in the classroom, home and community.	**Clarifying Statement** The focus should be on recognizing familiar computing technologies that we use in our lives.
	K-1.IC.4 Identify public and private spaces in our daily lives.	**Clarifying Statement** T.04 2 >>BDC Q (T.0802 Tc 10.02 -0 0EMC /0.

COMPUTATIONAL THINKING		
Modeling and Simulation	**K-1.CT.1** Identify and describe one or more patterns (found in nature or designed) and examine the patterns to find similarities and make predictions.	**Clarifying Statement** The emphasis is on identifying patterns and then making predictions based on the pattern.
Data Analysis and Visualization	**K-1.CT.2** Identify different kinds of data that can be collected from everyday life.	**Clarifying Statement** The emphasis is on understanding what is data and identifying different types of data, while exploring how data can be collected and sorted.
	K-1.CT.3 Identify ways to visualize data, and collaboratively create a visualization of data.	**Clarifying Statement** Ways to visualize data include tables, graphs, and charts.
Abstraction and Decomposition	**K-1.CT.4** Identify a problem or task and discuss ways to break it into multiple smaller steps.	**Clarifying Statement** The focus is on identifying a complex (for the age group) task or problem to break apart into smaller steps. The focus should be on understanding why this process is helpful.
	K-1.CT.5 Recognize that the same task can be described at different levels of detail.	**Clarifying Statement** Instructions to perform a task can be given with more or less detail but still achieve the same result.
Algorithms And Programming	**K-1.CT.6** Follow an algorithm to complete a task.	**Clarifying Statement** The task can be a familiar, daily activity or more abstract. Algorithms at this stage may be short, containing at least three steps, asrcyd.8( )6f.2(s)0.T0 1 Tf

DIGITAL LITERACY		
Digital Use	**K-1.DL.1** Identify and explore the keys on a keyboard.	**Clarifying Statement** The focus is on exploring physical and/or touchscreen keyboards, and for students to be able to identify specific keys such as arrow keys, enter, space bar, backspace.
	K-1.DL.2 Communicate and work with others using digital tools.	**Clarifying Statement** The focus should be on teaching students that people use digital tools to share ideas and work together. Communication and collaboration should be with teacher guidance.
	K-1.DL.3 Conduct a basic search based on a provided keyword.	**Clarifying Statement** The teacher will provide the keyword to help students conduct basic searches using appropriate tools.
	K-1.DL.4 Use a least one digital tool to create a d.8(g) l i y 3 h i 1 l a r i f y i n g S t a t	