Computer Science and Digital Fluency Learning Standards Grades 2-3

Taito LEARNING

Concept Areas	Clarifying Statement	TypeTastic Keyboarding Curriculum	Passwords and Online Security	Online Privacy	Netiquette	Cyberbullying	What is Internet?	Browsers and Search Engines	Communication	Technology Through Time	Hardware	Software	Hardware - Bonus	Data	Data and Charts	CodeMonkey Coding Curriculum
Impacts of Computing																
Society																
2-3.IC.1 Identify and analyze how computing technology has changed the way people live and work.	The focus should be on how advancements in computing technology have changed careers and lives.									•						
2-3.IC.2 Compare and explain rules related to computing technologies and digital information.	The focus is on having students understand why rules around computing technology can change depending upon the setting.		•	•	•	•										
Ethics																
2-3.IC.3 Discuss and explain how computing technology can be used in society and the world.	The focus is on examples of computing technology that were invented to solve broader problems in society, or existing technology platforms that can have many purposes.									•						
2-3.IC.4 Identify public and private digital spaces.	The focus is on identifying digital spaces in the context of sharing or accessing information, such as an online platform where students submit work (private) versus public websites that anyone can access.			•												
2-3.IC.5 Identify and discuss how computers are programmed to make decisions without direct human input for daily life.	The focus is on describing computing technology that relies on a program, settings, and data to make decisions without direct human involvement.															
Accessibility																
2-3.IC.6 Identify and discuss factors that make a computing device or software application easier or more difficult to use.	The focus is on identifying choices developers make when designing computing devices and software and considering the pros and cons when making those choices.															

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Career Paths																
2-3.IC.7 Identify a diverse range of roles and skills in computer science.	The focus is not just on jobs in computer science, but also the skills and practices that are important for careers in the field of computer science.															
Computational Thinking																
Modeling and Simulation																
2-3.CT.1 Create a model of an object or computational process in order to identify patterns and essential elements of the object or process.	The emphasis is on data represented in models to portray results and to assist in identifying patterns in the world around us.															
Data Analysis and Visualization																
2-3.CT.2 Identify and describe data collection tools from everyday life.	The emphasis is on identifying various tools in everyday life that collect, sort and store data, such as surveys, spreadsheets and charts.													•		
2-3.CT.3 Present the same data in multiple visual formats in order to tell a story about the data.	The emphasis is on using the visual representation to make the data meaningful. Options for presenting data visually include tables, graphs, and charts.														•	
Abstraction and Decomposition																
2-3.CT.4 Identify multiple ways that the same problem could be decomposed into smaller steps	The focus is on identifying how to break apart a problem into smaller steps, while understanding that there can be multiple valid sequences of steps that solve the same problem.															•*
2-3.CT.5 Identify the essential details needed to perform a general task in different settings or situations.	Some details are essential to performing a task, while others are not (E.g., some may be so common that they don't need to be stated)												•			

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Algorithms And Programming																
2-3.CT.6 Create two or more algorithms for the same task.	The task can be a familiar activity or more abstract. The focus is on finding more than one way to reach the same goal.															
2-3.CT.7 Name/label key pieces of information in a set of instructions, noting whether each name/label refers to a fixed or changing value.	The focus is on identifying key pieces of information, labelling them with a descriptive name, and observing which labels refer to different values each time the instructions are given, and which values stay the same.															•
2-3.CT.8 Identify steps within a task that should only be carried out under certain precise conditions.	The focus should be on recognizing that some steps in a task only get carried out some of the time, and that the conditions can be precisely described.															•
2-3.CT.9 Identify and debug errors within an algorithm or program that includes sequencing or repetition.	The focus should be on having students identify error(s) in an algorithm and suggest changes to fix the algorithm.															•
2-3.CT.10 Develop and document a plan that outlines specific steps taken to complete a project.	The focus should be on developing and documenting a plan in writing, using appropriate tools (such as a storyboard or story map).															
Networks & System Design																
Hardware and Software																
2-3.NSD.1 Describe and demonstrate several ways a computer program can receive data and instructions (input) and can present results (output).	The focus is on choosing and demonstrating different computing technologies to receive and present results depending on the task.											•				

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2-3.NSD.2 Explain the function of software in computing systems, using descriptive/precise language.	The focus is on understanding how software helps to complete computing tasks.											•				
2-3.NSD.3 Describe and attempt troubleshooting steps to solve a simple technology problem.	The focus is on building problem solving techniques for self-help, such as making sure speakers are turned on or headphones are plugged in or making sure that the caps lock key is not on, to narrow down a problem.															
Networks and the Internet																
2-3.NSD.4 Recognize that information can be communicated using different representations that satisfy different rules.	The focus is on understanding that information is converted in a special way so it can be sent through wires or waves through the air.						•		•							
2-3.NSD.5 Describe and navigate to various locations where digital information can be stored.	The focus is being able to navigate and save a file to a specific location.													•		
Cybersecurity																
Risks																
2-3.CY.1 Compare reasons why an individual should keep information private or make information public.	The focus should be on potential effects, both positive and negative, for making information public.			•												
Safeguards																
2-3.CY.2 Compare and contrast behaviors that do and do not keep information secure.	The emphasis is on recognizing and avoiding potentially harmful behaviors, such as sharing private information online or not logging off a public computer.		•	•												

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2-3.CY.3 Identify why someone might choose to share an account, app access, or devices.	The focus is on explaining how user habits and behaviors should be adjusted based on who shares a device and/or application.															
2-3.CY.4 Encode and decode a short message or phrase.	The focus is on having one student encode a word or message, and a different student, using the same key, decode it. You might encourage students to develop their own coding scheme.															
Response																
2-3.CY.5 Identify unusual activity of applications and devices that should be reported to a responsible adult.	The emphasis is on recognizing situations in which students should notify a trusted adult when a device or application does not perform as expected (pop-ups, authentication and/or loading issues).															
Digital Literacy																
Digital Use																
2-3.DL.1 Locate and use the main keys on a keyboard to enter text independently.	Students should be introduced to keyboarding and identify in second grade and begin to receive direct instruction in keyboarding in third grade, with a focus on form over speed and accuracy.	•														
2-3.DL.2 Communicate and work with others using digital tools to share knowledge and convey ideas.	The focus is on using digital tools to communicate and collaborate in order to expand knowledge and effectively convey ideas.								•							
2-3.DL.3 Conduct basic searches based on student identified keywords.	Students will identify key words with which to perform an internet search using teacher-approved tool(s), to obtain information.							•								
2-3.DL.4 Use a variety of digital tools and resources to create digital artifacts.	Different digital tools are used for different purposes, such as communicating, collaborating, researching, and creating original content.															
2-3.DL.5 * Standard begins in Grade Band 4-6.																

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Digital Citizenship																
2-3.DL.6 Describe ways that information may be shared online.	The focus is on how personal information, both public and private becomes available online and understand the ways their information can be shared in various ways.			•					•	•						
2-3.DL.7 Understand what it means to be part of a digital community and describe ways to keep it a safe, respectful space.	The focus is on describing actions with students and having them discuss whether those actions would be safe, responsible and/or ethical using technology and/or online spaces.				•	•										

* CodeMonkey Coding Curriculum sold separately for current customers