Standard: CS.D.01   Grade Band: K-2

Grade	Standard CS.D.01
K	Select and operate the appropriate **computing device** to perform a variety of different tasks.
1	Select and operate the appropriate **application**/**software** to perform a variety of tasks or obtain a desired outcome.
2	Compare and discuss preferences for applications/software with the same **primary functionality**.

Grade	Essential Skills
K	Distinguish among different **computing devices** according to their abilities to accomplish different tasks.
1	Choose an appropriate **application** to perform a given task. Complete a task using the computer application chosen.
2	Compare features of similar applications. Justify the choice of a application for a given purpose.

Explanation
Students will select the appropriate **computing device** to complete a task and understand what **application** to use to accomplish their objective. They will be able to explain what device and application they would use to video chat with a friend, to play a specific game, or create a story. By second grade they will be able to compare and discuss preferences for different computing devices and **software** with similar capabilities. Students could compare different video conferencing software or drawing programs and/or how the same application performs on different devices.

Think of this as similar to….
When you want to learn how to do play a game you have never played before, you may watch a video about it, ask a friend, or read the directions.

Essential Questions
How can you decide which **computing device** and/or **application** is best for your purpose?
What are advantages and disadvantages of using different applications to accomplish a task?

Implementation Examples—What would this look like in the classroom?

Grade(s)	Title	Description	Link	Content Connection & Notes
K	**How Does a Robot Work?**	**Grade K**- Students build on one another's discoveries to articulate the functions of each control on a robot (such as a Beebot, Code and Go mouse, etc.). They will identify the robot as a computing device, but one with different capabilities than other devices they may use (the robot can be programmed to move but cannot be used to display a Scratch Jr. program) Students then apply this knowledge to program a dance or game for their groupmates to actively engage with.	How Does a Robot Work?	This lesson uses Beebots or other floor robots.
K	**Why Do We Use Computers?**	**Grade K**--Students will discuss different ways that they use computers and how computers can help them. They should think about the different things they call "computers' and how they are used differently.	Why Do We Use Computers?	
K-1	**Dance Party**	**Grade K**--Students will be introduced to, or review, the Scratch Jr. programming environment. They will identify the devices that can be used with Scratch Jr. and similar programs and those that cannot and discuss the differences between the devices (a Beebot cannot be used to display a Scratch Jr. program, and neither can a phone; a tablet and a laptop both can) They will explore two categories of blocks - motion (blue) and looks (purple) - which they will sequence to create a fun dance party with 1 or more characters in Scratch Jr. **Grade 1**--Before beginning the project, students should be able to identify Scratch Jr. as a program in which they can create a dance party. They can compare it to other apps and games they use.	Dance Party	
1	**Engineering the Right App**	**Grade 1**--Students empathize with several fictional smartphone users in order to help them find the "right app" that addresses their needs. Then, students exercise empathy and creativity to sketch their own smartphone app that addresses the needs of one additional user. If reasonable, students can brainstorm actual apps that they have used that have features that would help with the needs expressed.	The Right App	

Grade(s)	Title	Description	Link	Content Connection & Notes
1-2	**Which Software?**	**Grade 1**--Students choose a drawing app to create a self-portrait (or other drawing task). **Grade 2**--Students use two or more drawing apps to determine which software they prefer. They should explain why they prefer one app over another, and/or the advantages and disadvantages of each.	[Which Software?]	
2	**Plants and Animals Reporter**	**Grade 2**--Students use computing devices to report on the diversity of plants and animals in different habitats. Students could create a video, presentation, drawing with labels, a photo story, etc. Students explain their choice of device(s) and/or application(s).		This lesson aligns with **NGSS.2.LS4-1**

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These annotations are a collaboration between Maryland Center for Computing Education and the Maryland State Department of Education.