

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

Grade	Standard
K	Recognize the possibility computing systems might not work as expected and identify basic hardware and software problems using appropriate technical terminology (e.g., monitor turned off, volume decreased on headphones).
1	Identify and communicate basic hardware and software problems that may occur during use (e.g., application or program not working correctly, no sound coming from device, caps lock turned on), using appropriate technical terminology.
2	Identify and summarize basic troubleshooting techniques to solve basic hardware and software problems (e.g., turning off and on a device to restart, closing and reopening an application/program, turning on speakers).

Grade	Essential Skills
K	Use appropriate terminology to identify issue and/or part of computing device that is not functioning correctly.
1	Contrast the way a computing device or program is not working properly with the way it is expected to work.
2	Identify possible strategies to resolve an issue with a computing device or program. Implement the strategies identified and determine if the issue has been resolved.

Explanation
Problems with computing systems have different causes. Students at this level do not need to understand those causes, but they should be able to communicate a problem with accurate terminology (e.g., when an application or program is not working as expected, a device will not turn on, the sound does not work, etc.) and use simple troubleshooting strategies to attempt to remedy it. Rebooting a device (powering off and on again) is often one of the first things students should try.

Think of this as similar to....
If you are walking and your foot begins to hurt, first you check to see if you have a rock in your shoe, then you check to see if your sock is bunched up, finally you check to see if you have a cut on your foot.

Essential Questions
Why do you need to use the right words when describing a computer problem?
What steps can you take to fix a problem with a computing device ?

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

Grade(s)	Title	Description	Link	Content Connection & Notes
K-2	Troubleshooting	<p>Grade K--Troubleshooting can be included organically when using any device. When a problem arises, help students articulate what the issue is (for example: they can't hear, nothing is on the screen)</p> <p>Grade 1--Students should begin to pinpoint issues they are having--if they can't hear they can check the headphones, the volume, etc.</p> <p>Grade 2--Students attempt to resolve issues with their devices independently. They should use accurate vocabulary to describe what is wrong and how they attempt to fix it (for example: There is no sound coming from the headphones, so I checked the volume which was fine; I then tried a different set of headphones and those worked.)</p>		

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These annotations are a collaboration between [Maryland Center for Computing Education](#) and the [Maryland State Department of Education](#).