

K.CSY.1 Computing Systems



The student will identify the purpose and components of a computing device. (a) Identify and locate parts of a computing device, including sensors. (b) Describe the function of common components in a computing device. (c) Identify different types of computing devices with screens. (d) Identify tasks and activities at home and at school that use screens. (e) Demonstrate proper use of computing devices.

Understanding the Standard

Many students identify a desktop or laptop computer as a "computer," but struggle to recognize other devices with screens, such as smartphones or tablets, as computers. Computing systems include various elements, such as keyboards, mice, screens, sensors, and printers. These elements allow users to perform tasks. Common features across devices include input methods (keyboards, sensors) and output methods (audio for listening and screens for viewing information). Students should recognize the various elements of computing systems described above and be familiar with the functions of each. It is also important from an early age for students to practice using computing devices safely and responsibly, for example, using two hands when carrying devices and gently typing when using a physical or on-screen keyboard.

Term	Definition
Computing device	An electronic device that can store and receive information.
Desktop computer	A stationary computing device.
Laptop computer	A portable computing device.
Mobile device	A small handheld device that mainly relies on touch input for controlling and interacting with it.
Tablet	A handheld device that primarily uses touch input
Sensor	An input device that detects changes around you (e.g., changes in light, sound, or motion) then sends a signal to the computer or another device.
Screen	An output device that is used to show text, images, and videos on computers

Prerequisite Knowledge

Students should have a basic understanding of operating computers or devices. For example, turning them on and off.

Integration Opportunities

English K.RI.1a Students might answer questions about a mentor text about computer science.

English K.W.2a Students compose simple sentences about computing systems.

English K.R Students could research topics about computing systems.

History K.1d Discuss how care of devices relates to being a citizen

History K.6 Provide students with a simple map of the classroom.

Have students identify computer components on the map.

History K.8a Computing devices can be incorporated into wants and needs

Music K.10 Students identify technology tools for creating music.

Math K.PFA.1 Students explore a classroom computer, identifying its parts (e.g., mouse, keyboard) while following a simple movement pattern (e.g., tap, click, swipe) to practice device use.

Summary of a Lesson

The teacher will facilitate a whole-class discussion to evaluate students' prior knowledge by inquiring about their exposure to and experience with electronic devices such as computers, tablets, and printers. The teacher will show pictures of various computer components (keyboard, mouse, desktop, laptop, computer, printer) and ask students to identify and name each component. Then, divide the class into small groups. Rotate each group through stations where students explore and interact with different components. As a class, review components by having students match a picture of the component to the name. Then, ask individual students to point or name a component on the chart.



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