

1.IC.3 Impacts of Computing

The student will compare and contrast ways people complete tasks with and without computing technologies. (a) Identify tasks that can be completed with and without computing technologies. (b) Discuss advantages and disadvantages of using and not using computing technologies. (c) Describe how the appropriate use of computing technologies can improve efficiency. (d) List computing technologies used in various careers.



Integration Opportunities

Understanding the Standard

Computing technologies are an important part of our daily lives. However, it's important to recognize that not all tasks require the use of a computer and that we should take care to use computers in a healthy way. To help students develop a deeper understanding of the role of technology in daily life they should examine how a wide range of careers utilize computing technologies in their day-to-day tasks. To be responsible computer users, students should be able to identify when a computer would make a task more efficient, and when a task would interrupt productivity. Incorporating efficient use of technology into our daily routines can facilitate a positive and safe experience with technology.

History 1.8c Students can connect computing careers to ways that people work to earn and save money.

Music 1.9 Students will describe the roles of computing technologies in the composition and production of music.

English 1.R.1 Organize opportunities for students to interview individuals in a variety of career fields. Generate interview questions about how each individual uses computing devices in their job. Students can share the information collected in small or large group settings.

Term	Definition
Computing device	An electronic device that can receive, store, process, and output information.
Career	The series of jobs and work we do throughout our lives, often within a particular profession or trade.
Job	A paid position of regular employment.
Advantage	Something that helps you do better or be more successful.
Disadvantage	Something that makes it harder for you to do better or succeed.

Prerequisite Knowledge

Students should have an understanding of what a job is from their studies in Kindergarten, but may need support in understanding the difference between a job and a career. They should also be able to identify multiple types of computing devices.

Summary of a Lesson

Ask students to name tasks that they can accomplish, such as writing their full name, making their bed, adding two numbers, or tying their shoes. Choose one of these tasks and ask what kinds of things would make it even easier to accomplish. After recording student responses, explain that we call things that help us be successful "advantages." Then ask what kinds of things would make it harder to accomplish that task. After recording student responses, explain that we call things that make it harder to succeed "disadvantages." In pairs, have kids consider if some kind of computing device would make it easier to do one of those tasks—would it give them an

advantage? Would a computer make it more difficult to do those tasks, giving them a disadvantage? As a class, list tasks that would be easier using a computer and tasks that would be more difficult using a computer.

