



3.IC.3 Impacts of Computing

The student will identify and describe computing technology careers and their impact on society. (a) Research computing technology careers. (b) Describe the impact careers in computing technology have on society.

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. In addition, students should be familiar with a variety of roles within technology fields and begin to identify skills and areas of study that could benefit a professional in that field. Understanding the relationship between computing technologies and the workforce can facilitate positive and productive experiences with technology.

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
Skill	Something a person has learned that helps them complete a task well.

Integration Opportunities

Math 3.PS.1 Research computing technology careers, collect data on the number of professionals in each field, and create pictographs or bar graphs to represent this data. Discuss the impact these careers have on societal innovation and problem-solving.

Visual Arts 3.9 Identify artists who use computing technologies to create works of art and describe how the technology impacts the art.

English 3.W.1c Have students research and write an informative piece that uses facts and details to examine the impact of a selected career in technology through cause and effect, problem and solution, or comparing and contrasting.

Prerequisite Knowledge

Students should have an understanding of the difference between a job and a career and the definition of each. They should also be able to identify multiple types of computing devices.

Summary of a Lesson

Hold a "career fair" during which students view and listen to how a variety of professionals do their jobs. This may be done in person with volunteers from the community, through video chats with volunteers, or through viewing videos or reading books that show a "day in the life" of careers in the field of technology. Have students record when and how each professional interacts with computing devices. Collect student ideas on a class chart. For each entry on the chart, collect ideas about what skills a person would need to help them do that task. Have students journal about one career they thought was interesting, what skills they would need to succeed in that career, and how that career benefits their community.