

5.IC.3 Impacts of Computing

The student will identify the impact of computing technologies on the workforce, culture, and global society. (a) Research and analyze computing technology careers in global society. (b) Examine the impacts of diversity and inclusivity in computing technology fields globally. (c) Explore the impact of emerging technologies on workforce, culture, and global society.



Integration Opportunities

English 5.R.1 b,c Conduct research and use search terms to collect information from multiple print and digital sources on a topic. Evaluate sources, organize and synthesize information.

Visual Arts 5.10 Investigate how time-based media has impacted culture.

Music 5.6 Investigate how global communication has impacted the reach and influence of musical styles and inspiration of musicians to perform or compose..

Understanding the Standard

Computing technologies are an important part of our daily lives. To help students develop a deeper understanding of the role of technology in daily life, they examine how a wide range of careers utilize computing technologies in their day-to-day tasks, and should be familiar with a variety of roles within technology fields. In fifth grade, students expand their knowledge of computing fields to include global perspectives. They should begin to understand how emerging technologies can come from innovation from anywhere in the world and examine how involving professionals from a broad range of experiences and backgrounds affect the innovation in and accessibility of technology. In addition, students might explore how trends in technology affect the traditions and values of people around the world and how traditions and values impact technology use. 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
Diversity	The presence of a variety of people or things with different characteristics.
Inclusivity	The quality of including many different types of people and treating them all fairly and equally.

Prerequisite Knowledge

Students should be familiar with a variety of roles within technology fields. They should also have some knowledge of a diverse set of cultures and traditions.

Summary of a Lesson

Brainstorm with students some examples of computing technology that students use in their lives. Then break students into groups (4-5 students each) and assign each group a different industry (e.g. agriculture, manufacturing, retail, healthcare, transportation, etc). The teacher will provide each group with a handout or other resource with examples of computing technology that has impacted their industry. Instruct each group to consider how these technologies have made their industry more accessible or less accessible to people from various geographic, educational, financial, and cultural backgrounds, conducting more research if necessary. Once the group has completed their research and discussion, students should present their conclusions to the whole group.