

# Impacts of Computing: Culture (1) Grade: 4

## Standard 4.IC.C.01

Summarize how different technologies created by people from diverse backgrounds have contributed to computing and helped to change the world.

## Essential Skills

Give examples of technologies that have changed computing or other aspects of life.

## Essential Questions

What are some technologies that have changed the world?

How can an individual's background impact how they create and/or improve technology for a specific purpose?

## Explanation

The technologies that we have today were created and improved upon by people from all over the world. A person's background includes their culture, ethnicity, race, religion, socioeconomic level, and culture as well as their lifestyle, experiences, perspectives and interests. When people with diverse backgrounds collaborate innovation can occur that might not exist otherwise. Innovation has created technologies such as robotics, wireless internet, mobile computing devices, GPS systems, wearables, and social media which have impacted people all over the world.

## Think of this as similar to...

We used to have to go to movie theaters to see movies, but now many are available at any time over streaming services.

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

Title	Description	Link	Content Connection & Notes
<b>Computer Pioneer</b>	<p><b>Grade 3</b>--Students research a famous person from the history of computers and/or technology. Then, students create a trading card to synthesize their learning. The project can be adapted to focus on women or people of color.</p> <p><b>Grade 4</b>-- Students should include information about what change was or could be made by the person's invention, creation, improvement etc.</p> <p><b>Grade 5</b>--Students also analyze how the inventor's background likely impacted the invention, creation, improvement, etc. Evaluate how the change in technology affected the individual's cultural traditions and those of others.</p>	Use these <a href="#">CS Justice Heroes</a> (scroll down the page) to gather information for this lesson.	
<b>Computers All Around</b>	<p><b>Grade 3</b>--Students will create a definition of technology and identify various technologies and things that are not technologies. They will watch and discuss videos about two people who have created fashion that is also technology.</p> <p><b>Grade 4</b>--Students will discuss how some of the identified technologies have changed everyday life. They will then brainstorm other ways technology can be made useful for their lives or those of others.</p> <p><b>Grade 5</b>--Students create a prototype (a drawing and description) of an object that can be enhanced with technology. Once they have developed the prototype they should think about how their own life has impacted their idea, and how it may be changed or improved by someone in a different situation. They should also consider how it may change the traditions of their families or of others. (For example, if you develop a machine that senses when trick or treaters come and gives out the candy, that will change the tradition of trick or treating.)</p>	<a href="#">Computers All Around</a>	

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