

6.IC.2 Impacts of Computing



The student will analyze the impact of screen time on physical and mental health. (a) Analyze and describe the impact of excessive technology usage may have on one's physical health. (b) Examine the impact of blue light on sleep patterns and regulations. (c) Propose strategies that provide alternatives of technology usage to promote physical activity. (d) Discuss the potential impact the use of social media may have on self-identity and mental health. (e) Define cyberbullying and its impact on one's health and well-being. (f) Discuss the possible effects of cyberbullying. (g) Identify ways to report illegal or psychologically maladaptive online behavior.

Integration Opportunities

Understanding the Standard

Broadly, the harms of computing in this standard fall into two categories—physical health, and mental health. Poor sleep hygiene is a prominent symptom of technology use, either because youth are kept awake as they play games and talk with friends late into the night, or because of the physical impacts of "blue light" (the light from modern LED and OLED screens), though its effects are still being investigated. Social effects of computing are powerful, especially at this age. There is evidence that social media use, while it can connect students with self-affirming social groups, also exposes students to hate speech, unrealistic body standards, and cyberbullying among other harmful social stimuli. The scientific understanding of these issues is evolving rapidly. Be sure to do some research ahead of teaching these concepts to ensure you are providing the most up-to-date information about these topics.

English 6.C.4b,c Examine various social media messages and analyze the effectiveness of their content. Explore how these messages might influence thoughts, decisions, and actions of a target audience.

Math 6.PS.1 Create a graph to represent the time spent on different types of technology usage (e.g., social media, video games, academic use, and other tech activities), analyze the graph to identify trends related to sleep patterns and physical activity levels, and use findings to propose strategies for balanced technology use.

Health 6.1.w, 6.2.w, 6.3.w Explore various scenarios of cyberbullying to examine the possible effects on mental and emotional health. Discuss how the media and the community can help prevent cyberbullying.

Term	Definition
Blue light	Light from modern LED and OLED screens, which may have a negative impact on sleep and vision.
Social media	Websites that facilitate social interaction; there is evidence to suggest it causes harm to many youth.
Cyberbullying	Using Internet communication to bully, harass, or otherwise harm an individual, often anonymously.

Prerequisite Knowledge

Students should be able to define "social media" and analyze their use of technology before engaging with this standard.

Summary of a Lesson

Start this topic by having students list the positive and negative aspects of technology use. You can supplement their responses with scenarios or vignettes about technology use to help them identify additional harms or benefits. Then, focus on the importance of sleep and mental health, and connect appropriate examples of technology use to potential harms in these areas (especially the risk of anxiety, poor self image, and cyberbullying online). Pay special attention to the difference between "real life" and social media—reinforce the fact that social media invites social comparison, which is unhealthy and often amplifies existing stereotypes and divisive concepts.