



ADMINISTRATIVE RULES OF MONTANA



10.53.1107 COMPUTER SCIENCE CONTENT STANDARDS FOR FIFTH GRADE

- (1) Computer science algorithms and programming standards for fifth grade are:
 - (a) compare and refine multiple algorithms for the same task and determine which is the most appropriate;
 - (b) create programs that use variables to store and modify data;
 - (c) create programs that include sequences, events, loops, and conditionals;
 - (d) modify, remix, or incorporate portions of an existing program to develop something new or add more advanced features; and
 - (e) describe choices made during program development.
- (2) Computer science computing systems standards for fifth grade are:
 - (a) describe how internal and external parts of computing devices function to form a system;
 - (b) model how computer hardware and software work together as a system to accomplish tasks; and
 - (c) determine potential solutions to solve simple hardware and software problems using common troubleshooting strategies.
- (3) Computer science data and analysis standards for fifth grade are:
 - (a) organize and present collected data visually to highlight relationships and support a claim;
 - (b) demonstrate how to store, copy, search, retrieve, modify, and delete information using a computing device; and
 - (c) use accurate and relevant data to highlight or propose cause-and-effect relationships, predict outcomes, or communicate an idea.
- (4) Computer science impacts of computing standards for fifth grade are:
 - (a) explain how computing technologies have changed Montana and the world, and express how those technologies influence, and are influenced by, cultural practices;
 - (b) identify ways to improve the accessibility and usability of technology products for the diverse needs and wants of users;
 - (c) utilize diverse perspectives for the purpose of improving computational artifacts;
 - (d) apply laws associated with digital information and intellectual property; and

- (e) describe ethical issues that relate to computing devices and networks.
- (5) Computer science networks and the internet standards for fifth grade are:
 - (a) explain cybersecurity problems; and
 - (b) explain how personal information can be protected.

Authorizing statute(s): Mont. Const. Art. X, sec. 9, 20-2-121, MCA

Implementing statute(s): Mont. Const. Art. X, sec. 9, 20-2-121, 20-3-106, 20-7-101, MCA

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