

Grade 5 (Ages 10–11)

Concept	Identifier	Standard
Algorithms & Design	E5-ALG-PS-01	Create a visual representation of an algorithm that includes variables and a combination of sequence, events, iteration, and selection to solve a problem or express an idea.
	E5-ALG-ML-02	Train a machine learning model to make a classification or prediction.
	E5-ALG-IM-03	Articulate how human-centered design principles are incorporated into the development of a computing technology.
Programming	E5-PRO-PD-04	Create a novel program by modifying or combining elements of existing programs.
	E5-PRO-PD-05	Construct individual components of a program that are collaboratively assembled into a programming project.
	E5-PRO-VD-06	Use variables to store, compare, and modify data within a program.
	E5-PRO-RD-07	Create embedded or external documentation for a programming project.
	E5-PRO-TR-08	Debug a program using systematic strategies.
Data & Analysis	E5-DAT-DC-09	Use computational tools to collect and organize different types of data.
	E5-DAT-DI-10	Analyze a dataset to identify the nature and possible sources of variability in the data.
	E5-DAT-IM-11	Analyze the benefits and risks of a computing technology that uses collected data.
Systems & Security	E5-SYS-HW-12	Explain how hardware and software components of a computing system work together to perform input and output operations, processing, and storage.
	E5-SYS-SE-13	Describe the concepts of the CIA triad and how each component is important in protecting information.
	E5-SYS-NT-14	Distinguish between the components of wired and wireless networks.
	E5-SYS-IM-15	Examine how computing systems impact culture and the ways people live and work.
Computing & Society	E5-SOC-HI-16	Analyze how the inclusion or exclusion of diverse individuals and communities has shaped the design, development, and societal impact of computing technologies.
	E5-SOC-ET-17	Examine how people decide whether or not to use emerging technologies.
	E5-SOC-HU-18	Evaluate when it is appropriate to use or not use computing technologies to solve a problem.
	E5-SOC-CE-19	Examine how professionals collaborate while using computing technologies to solve problems.