

New Jersey Student Learning Standards

Technology

<https://www.state.nj.us/education/aps/cccs/tech/>

New Jersey's Technology Standards consist of 8.1 Educational Technology and 8.2 Technology, Engineering, Design and Computational Thinking, which work symbiotically to provide students with the necessary skills for college and career readiness.

"Advances in technology have drastically changed the way we interact with the world and each other. The digital age requires that we understand and are able to harness the power of technology to live and learn". - International Society for Technology in Education

In this ever-changing digital world where citizenship is being re-imagined, our students must be able to harness the power of technology to live, solve problems and learn in college, on the job and throughout their lives. Enabled with digital and civic citizenship skills, students are empowered to be responsible members of today's diverse global society.

Readiness in this century demands that students actively engage in critical thinking, communication, collaboration, and creativity. Technology empowers students with real-world data, tools, experts and global outreach to actively engage in solving meaningful problems in all areas of their lives. The power of technology discretely supports all curricular areas and multiple levels of mastery for all students.

"A major consequence of accelerating technological change is a difference in levels of technological ability and understanding. The workforce of the future must have the ability to use, manage, and understand technology." – International Technology and Engineering Educators Association

The design process builds in our students the recognition that success is not merely identifying a problem but working through a process and that failure is not an end but rather a point for reevaluation. Whether applied as a skill in product development, in the learning environment, in daily life, in a local or more global arena, the design process supports students in their paths to becoming responsible, effective citizens in college, careers and life.

Computational thinking provides an organizational means of approaching life and its tasks. It develops an understanding of technologies and their operations and provides students with the abilities to build and create knowledge and new technologies. Not all students will be programmers, but they should have an understanding of how computational thinking can build knowledge and control technology.

Califon School

Scope and Sequence

Grade: 8th

Subject: Technology

Unit	Sept.				Oct.				Nov.				Dec.				Jan.				Feb.				Mar.				Apr.				May				June			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Computer Science – Part 1 (Computing Systems, Networks, the Internet, & Impacts of Computing)	■	■	■	■	■	■	■	■	■	■																														
Computer Science – Part 2 (Data & Analysis and Algorithms & Programming)									■	■	■	■	■	■	■	■	■	■	■	■																				
Design Thinking (Engineering Design & Nature of Technology)																					■	■	■	■	■	■	■	■												
Design Thinking (Interaction of Technology & Humans, Effects of Technology on the Natural World, Ethics & Culture)																													■	■	■	■	■	■	■	■	■	■	■	■