

# Computer Science and Digital Fluency Learning Standards

Standards at a Glance

Grades 2-3

## Impacts of Computing



Subconcept	Standard
Society	<b>2-3.IC.1</b> Identify and analyze how computing technology has changed the way people live and work.
	<b>2-3.IC.2</b> Compare and explain rules related to computing technologies and digital information.
Ethics	<b>2-3.IC.3</b> Discuss and explain how computing technology can be used in society and the world.
	<b>2-3.IC.4</b> Identify public and private digital spaces.
	<b>2-3.IC.5</b> Identify and discuss how computers are programmed to make decisions without direct human input in daily life.
Accessibility	<b>2-3.IC.6</b> Identify and discuss factors that make a computing device or software application easier or more difficult to use.
Career Paths	<b>2-3.IC.7</b> Identify a diverse range of roles and skills in computer science.

## Computational Thinking



Subconcept	Standard
Modeling and Simulation	<b>2-3.CT.1</b> Create a model of an object or computational process in order to identify patterns and essential elements of the object or process.
Data Analysis and Visualization	<b>2-3.CT.2</b> Identify and describe data collection tools from everyday life.
	<b>2-3.CT.3</b> Present the same data in multiple visual formats in order to tell a story about the data.
Abstraction and Decomposition	<b>2-3.CT.4</b> Identify multiple ways that the same problem could be decomposed into smaller steps.
	<b>2-3.CT.5</b> Identify the essential details needed to perform a general task in different settings or situations.
Algorithms and Programming	<b>2-3.CT.6</b> Create two or more algorithms for the same task.
	<b>2-3.CT.7</b> Name/label key pieces of information in a set of instructions, noting whether each name/label refers to a fixed or changing value.
	<b>2-3.CT.8</b> Identify steps within a task that should only be carried out under certain precise conditions.
	<b>2-3.CT.9</b> Identify and debug errors within an algorithm or program that includes sequencing or repetition.
	<b>2-3.CT.10</b> Develop and document a plan that outlines specific steps taken to complete a project.

## Networks & System Design



Subconcept	Standard
Hardware and Software	<b>2-3.NSD.1</b> Describe and demonstrate several ways a computer program can receive data and instructions (input) and can present results (output).
	<b>2-3.NSD.2</b> Explain the function of software in computing systems, using descriptive/precise language.
	<b>2-3.NSD.3</b> Describe and attempt troubleshooting steps to solve a simple technology problem.
Networks and the Internet	<b>2-3.NSD.4</b> Recognize that information can be communicated using different representations that satisfy different rules.
	<b>2-3.NSD.5</b> Describe and navigate to various locations where digital information can be stored.

## Cybersecurity



Subconcept	Standard
Risks	<b>2-3.CY.1</b> Compare reasons why an individual should keep information private or make information public.
Safeguards	<b>2-3.CY.2</b> Compare and contrast behaviors that do and do not keep information secure.
	<b>2-3.CY.3</b> Identify why someone might choose to share an account, app access, or devices.
	<b>2-3.CY.4</b> Encode and decode a short message or phrase.
Response	<b>2-3.CY.5</b> Identify unusual activity of applications and devices that should be reported to a responsible adult.

## Digital Literacy



Subconcept	Standard
Digital Use	<b>2-3.DL.1</b> Locate and use the main keys on a keyboard to enter text independently.
	<b>2-3.DL.2</b> Communicate and work with others using digital tools to share knowledge and convey ideas.
	<b>2-3.DL.3</b> Conduct basic searches based on student-identified keywords.
	<b>2-3.DL.4</b> Use a variety of digital tools and resources to create digital artifacts.
	<b>2-3.DL.5</b> <i>This Standard begins in Grade Band 4–6.</i>
Digital Citizenship	<b>2-3.DL.6</b> Describe ways that information may be shared online.
	<b>2-3.DL.7</b> Understand what it means to be part of a digital community and describe ways to keep it a safe, respectful space.