New York Computer Science & Digital Fluency

Grades 2-3

Impact of Computing 2-3.IC

Society

1 Identify and analyze how computing technology has changed the way people live and work. 2-3.IC.1

2 Compare and explain rules related to computing technologies and digital information. 2-3.IC.2

Ethics

3 Discuss and explain how computing technology can be used in society and the world. 2-3.IC.3

4 Identify public and private digital spaces. 2-3.IC.4

5 Identify and discuss how computers are programmed to make decisions without direct human input for daily life. 2-3.IC.5

Accessibility

6 Identify and discuss factors that make a computing device or software application easier or more difficult to use. 2-3.IC.6

Career Paths

7 Identify a diverse range of roles and skills in computer science. 2-3.IC.7

Computational Thinking 2-3.CT

Modeling and Simulation

1 Create a model of an object or computational process in order to identify patterns and essential elements of the object or process. 2-3.CT.1

Data Analysis and Visualization

2 Identify and describe data collection tools from everyday life. 2-3.CT.2

3 Present the same data in multiple visual formats in order to tell a story about the data. 2-3.CT.3

Abstraction and Decomposition

4 Identify multiple ways that the same problem could be decomposed into smaller steps 2-3.CT.4

5 Identify the essential details needed to perform a general task in different settings or situations. 2-3.CT.5

Algorithms And Programming

6 Create two or more algorithms for the same task. 2-3.CT.6

7 Name/label key pieces of information in a set of instructions, noting whether each name/label refers to a fixed or changing value. 2-3.CT.7

8 Identify steps within a task that should only be carried out under certain precise conditions. 2-3.CT.8

9 Identify and debug errors within an algorithm or program that includes sequencing or repetition. 2-3.CT.9

10 Develop and document a plan that outlines specific steps taken to complete a project. 2-3.CT.10

Networks & System Design 2-3.NSD

Hardware and Software

1 Describe and demonstrate several ways a computer program can receive data and instructions (input) and can present results (output). 2-3.NSD.1

2 Explain the function of software in computing systems, using descriptive/precise language. 2-3.NSD.2

3 Describe and attempt troubleshooting steps to solve a simple technology problem. 2-3.NSD.3

Networks and the Internet

4 Recognize that information can be communicated using different representations that satisfy different rules. 2-3.NSD.4

5 Describe and navigate to various locations where digital information can be stored. 2-3.NSD.5

Cybersecurity 2-3.CY

Risks

1 Compare reasons why an individual should keep information private or make information public. 2-3.CY.1

Safeguards

2 Compare and contrast behaviors that do and do not keep information secure. 2-3.CY.2

3 Identify why someone might choose to share an account, app access, or devices. 2-3.CY.3

4 Encode and decode a short message or phrase. 2-3.CY.4

Response

5 Identify unusual activity of applications and devices that should be reported to a responsible adult. 2-3.CY.5

Digital Literacy 2-3.DL

Digital Use

1 Locate and use the main keys on a keyboard to enter text independently. 2-3.DL.1

2 Communicate and work with others using digital tools to share knowledge and convey ideas. 2-3.DL.2

3 Conduct basic searches based on student identified keywords. 2-3.DL.3

4 Use a variety of digital tools and resources to create digital artifacts. 2-3.DL.4

5 * Standard begins in Grade Band 4-6. 2-3.DL.5

Digital Citizenship

6 Describe ways that information may be shared online. 2-3.DL.6

7 Understand what it means to be part of a digital community and describe ways to keep it a safe, respectful space. 2-3.DL.7