

Grade 7

Computational Thinking DLCS25.7.CT

AAD Algorithms, Abstraction, and Decomposition DLCS25.7.CT.AAD

- 1 Design and test algorithms using pseudocode with sequencing, selection, and iteration applying relational and logical operators to control program flow and produce appropriate outcomes. DLCS25.7.1
- 2 Create a flowchart and corresponding pseudocode to plan and explain a process. DLCS25.7.2
- 3 Debug algorithms containing selection and iteration and explain improvements. DLCS25.7.3
- 4 Analyze a multi-step problem by dividing it into its key components that can be completed collaboratively. DLCS25.7.4
- 5 Create functions to reduce complexity in programming. DLCS25.7.5

P Programming DLCS25.7.CT.P

- 6 Design and implement a program that solves a problem, using sequencing, selection, and iteration, and user input to control the program's behavior. DLCS25.7.6

Data Science DLCS25.7.DS

DCR Data Collection and Representation DLCS25.7.DS.DCR

- 7 Write a program that utilizes multiple data types and structures. DLCS25.7.7
- 8 Convert simple text and numbers into binary, manually or using digital tools. DLCS25.7.8

DA Data Analysis DLCS25.7.DS.DA

- 9 Apply basic data analysis techniques to draw conclusions from structured datasets. DLCS25.7.9
- 10 Use evidence from multiple data sources to support claims or decisions related to real-world problems. DLCS25.7.10

MS Modeling and Simulation DLCS25.7.DS.MS

- 11 Modify a model or simulation to improve its accuracy and describe how changes in input affect the results. DLCS25.7.11

Computing Systems DLCS25.7.CS

NI Networks and Internet DLCS25.7.CS.NI

- 12 Compare and contrast different types of networks, including LAN, WAN, and wireless. DLCS25.7.12

- 13 Describe how data travels between devices using basic protocols. [DLCS25.7.13](#)
- 14 Identify Internet of Things (IoT) devices and explain how they communicate with other devices over a network. [DLCS25.7.14](#)

C Cybersecurity [DLCS25.7.CS.C](#)

- 15 Explain how sensitive data can be compromised by threats and analyze how strong security practices can reduce these risks. [DLCS25.7.15](#)
- 16 Outline cybersecurity practices, including firewalls, antivirus software, and secure passwords, and explain how to identify and reduce system vulnerabilities. [DLCS25.7.16](#)
- 17 Demonstrate strategies for protecting personal information and digital identity. [DLCS25.7.17](#)

HS Hardware and Software [DLCS25.7.CS.HS](#)

- 18 Evaluate the benefits and limitations of hardware components for different users and computing needs. [DLCS25.7.18](#)
- 19 Complete a specific task using appropriate application software. [DLCS25.7.19](#)
- 20 Analyze how different operating systems work for various types of devices. [DLCS25.7.20](#)

Impact of Computing [DLCS25.7.IC](#)

CP Career Paths [DLCS25.7.IC.CP](#)

- 21 Investigate various careers in computer science and related fields, and identify the skills commonly required for those roles. [DLCS25.7.21](#)

E Ethics [DLCS25.7.IC.E](#)

- 22 Explain the importance of intellectual property, copyright, and fair use in digital media. [DLCS25.7.22](#)
- 23 Analyze ethical dilemmas involving the use of technology or data, including AI bias and misuse. [AI] [DLCS25.7.23](#)

S Society [DLCS25.7.IC.S](#)

- 24 Describe ways computing technologies can transform and impact the environment, culture, economies, and society [DLCS25.7.24](#)

ET Emerging Technology [DLCS25.7.IC.ET](#)

- 25 Assess and predict the impact of emerging technologies. [AI] [DLCS25.7.25](#)

A Accessibility [DLCS25.7.IC.A](#)

- 26 Apply basic accessibility principles when creating digital content. [DLCS25.7.26](#)

Digital Proficiency [DLCS25.7.DP](#)

IL Information Literacy [DLCS25.7.DP.IL](#)

- 27 Apply strategies for verifying digital information, cross-referencing sources and using digital tools to assess credibility and accuracy. [AI] [DLCS25.7.27](#)

DL Digital Life DLCS25.7.DP.DL

- 28 Analyze their own technology use and explain the impact of online activities on their lives and well-being. DLCS25.7.28

DT Digital Tools DLCS25.7.DP.DT

- 29 Select and apply appropriate online tools and file types for a variety of tasks. DLCS25.7.29
- 30 Collaborate with peers using online platforms to create and revise multimedia content, adjusting tone and format for audience and purpose. DLCS25.7.30
- 31 Compare and contrast AI-generated artifacts with human-generated artifacts. [AI] DLCS25.7.31
- 32 Input text at a rate of 30 words per minute via keyboard or alternative text input method. DLCS25.7.32