

# Grade 6

## Computational Thinking DLCS25.6.CT

### AAD Algorithms, Abstraction, and Decomposition DLCS25.6.CT.AAD

- 1 Create pseudocode using sequencing, selection, and iteration applying relational and logical operators to control program flow. DLCS25.6.1
- 2 Differentiate between flowcharts and pseudocode and create both to solve a task. DLCS25.6.2
- 3 Trace and debug pseudocode to identify outcomes and correct logic errors. DLCS25.6.3
- 4 Break a task into smaller steps and evaluate the purpose and effectiveness of each step to solve a problem. DLCS25.6.4
- 5 Explain how abstraction simplifies tasks, using real-life examples. DLCS25.6.5

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### P Programming DLCS25.6.CT.P

- 6 Create a program that includes sequencing, selection, and iteration. DLCS25.6.6
- 7 Create an interactive program using sequential commands and user input to control basic program actions, like movement or responses. DLCS25.6.7

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## Data Science DLCS25.6.DS

### DCR Data Collection and Representation DLCS25.6.DS.DCR

- 8 Differentiate between numeric and text data types and construct simple data structures. DLCS25.6.8
- 9 Explain why computers use a binary system. DLCS25.6.9

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### DA Data Analysis DLCS25.6.DS.DA

- 10 Create graphs or charts from simple datasets to identify patterns, and describe key findings. DLCS25.6.10
- 11 Generate and interpret descriptive statistics, including mean, median, and mode, to summarize data. DLCS25.6.11

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### MS Modeling and Simulation DLCS25.6.DS.MS

- 12 Use basic models or simulations to test how changes in input affect outcomes. DLCS25.6.12

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## Computing Systems DLCS25.6.CS

### NI Networks and Internet DLCS25.6.CS.NI

- 13 Explain the basic roles of routers, IP addresses, domain names, and servers in network communication. DLCS25.6.13

14 Differentiate between the Internet and the World Wide Web. DLCS25.6.14

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**C Cybersecurity** DLCS25.6.CS.C

- 15 Identify common online threats, including social engineering, and describe safe practices to protect personal information. DLCS25.6.15
- 16 Explain how strong passwords and multi-factor authentication help protect data. DLCS25.6.16
- 17 Compare safe and unsafe online behaviors related to social media use, personal identifiable information, and cyberbullying. DLCS25.6.17
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**HS Hardware and Software** DLCS25.6.CS.HS

- 18 Perform basic troubleshooting to solve hardware problems. DLCS25.6.18
- 19 Identify examples of system and application software, and match common applications to appropriate tasks DLCS25.6.19
- 20 Explain the purpose of an operating system and describe how it manages hardware and software resources. DLCS25.6.20
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**Impact of Computing** DLCS25.6.IC

**CP Career Paths** DLCS25.6.IC.CP

- 21 Identify a variety of careers that relate to or utilize computer science skills. DLCS25.6.21
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**E Ethics** DLCS25.6.IC.E

- 22 Summarize major state and federal laws related to technology use, including those regulating copyright and intellectual property. DLCS25.6.22
- 23 Describe how AI systems are used in everyday life and examine the ethical considerations they raise. [AI] DLCS25.6.23
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**S Society** DLCS25.6.IC.S

- 24 Explain how computing technologies have changed and will continue to change the way people communicate, learn, and work in their daily lives and communities DLCS25.6.24
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**ET Emerging Technology** DLCS25.6.IC.ET

- 25 Identify examples of relevant emerging technologies and describe their purposes. [AI] DLCS25.6.25
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**A Accessibility** DLCS25.6.IC.A

- 26 Evaluate accessibility features in digital tools and explain how they improve usability for individuals with diverse abilities. DLCS25.6.26
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**Digital Proficiency** DLCS25.6.DP

**IL Information Literacy** DLCS25.6.DP.IL

- 27 Analyze digital content for reliability and cite sources properly. DLCS25.6.27
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**DL Digital Life** DLCS25.6.DP.DL

- 28 Investigate their own digital footprints and describe the effects digital footprints can have on themselves and others. [DLCS25.6.28](#)
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**DT Digital Tools** [DLCS25.6.DP.DT](#)

- 29 Create and apply a structured system for organizing files, folders, and subfolders to manage and retrieve digital work efficiently. [DLCS25.6.29](#)
- 30 Identify AI and non-AI technologies and features when using digital tools.  
[AI] [DLCS25.6.30](#)
- 31 Input text at a rate of 25 words per minute via keyboard or alternative text input method. [DLCS25.6.31](#)