Alabama Digital Literacy and Computer Science

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 Sy

Skip to main content

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 Pr

Skip to main content

II 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