DLCS Curriculum Evaluation Tool Grades 6-8

Name of Reviewer: _____ **School/District:** _____ **Date:** _____

Name of Curriculum Materials: _____ **Publication Date:** _____ **Grade Level(s):** _____

Scale:

Not Found	N	The digital literacy and computer science content was not found.
Low	L	Major gaps in the digital literacy and computer science content were found.
Marginal	M	Gaps in the digital literacy and computer science content, as described in the Standards, were found and these gaps may
Acceptable	A	Few gaps in the digital literacy and computer science content, as described in the Standards, were found and these gaps
High	H	The digital literacy and computer science content was fully formed as described in the Standards.

Overaching Considerations:

To what extent do the materials:	N-L-M-A-H	Comments:
Provide a multitude of avenues to meet standards (unplugged, online, visual, auditory, kinesthetic)		
Meet accessibility standards (physically and digitally)		
Address a variety of comprehension levels (Blooms, DOK)		
Guidance for teachers in effectively teaching the standards (clear procedures are provided to assist in implementation of the materials; essential learning material such as handouts, student text, and other instructional tools provided)		
Provide varied assessment strategies that include:		
Basic response items (e.g., multiple choice, matching, true and false)		
Performance Assessments		
Reflect, over time, on what and how they have learned		
Project-based Tasks		
Provide opportunities for cross-curricular integration		
The resource provides guidance to the student regarding practicing and applying the skill using real life scenarios/ experiences		
Glossaries, bibliographies, indices, appendices, and tables of content are included, comprehensive, and easy to use		

DLCS Grade 6	Chapter, Pages, Resource	N-L-M-A-H	DLCS Grade 7	Chapter, Pages, Resource	N-L-M-A-H	DLCS Grade 8	Chapter, Pages, Resource	N-L-M-A-H
Recurring Standards			**Recurring Standards**			**Recurring Standards**		
Safety, Privacy, and Security			**Safety, Privacy, and Security**			**Safety, Privacy, and Security**		
R1. Identify, demonstrate, and apply personal safe use of digital devices.			R1. Identify, demonstrate, and apply personal safe use of digital devices.			R1. Identify, demonstrate, and apply personal safe use of digital devices.		
Legal and Ethical Behavior			**Legal and Ethical Behavior**			**Legal and Ethical Behavior**		
R2. Recognize and demonstrate age-appropriate responsible use of digital devices and resources as outlined in school/district rules.			R2. Recognize and demonstrate age-appropriate responsible use of digital devices and resources as outlined in school/district rules.			R2. Recognize and demonstrate age-appropriate responsible use of digital devices and resources as outlined in school/district rules.		
Impact of Computing			**Impact of Computing**			**Impact of Computing**		
R3. Assess the validity and identify the purpose of digital content.			R3. Assess the validity and identify the purpose of digital content.			R3. Assess the validity and identify the purpose of digital content.		
Systems			**Systems**			**Systems**		
R4. Identify and employ appropriate troubleshooting techniques used to solve computing or connectivity issues.			R4. Identify and employ appropriate troubleshooting techniques used to solve computing or connectivity issues.			R4. Identify and employ appropriate troubleshooting techniques used to solve computing or connectivity issues.		

Collaborative Research			Collaborative Research			Collaborative Research		
R5. Locate and curate information from digital sources to answer research questions.			R5. Locate and curate information from digital sources to answer research questions.			R5. Locate and curate information from digital sources to answer research questions.		
Digital Tools			**Digital Tools**			**Digital Tools**		
R6. Produce, review, and revise authentic artifacts that include multimedia using appropriate digital tools.			R6. Produce, review, and revise authentic artifacts that include multimedia using appropriate digital tools.			R6. Produce, review, and revise authentic artifacts that include multimedia using appropriate digital tools.		
Computational Thinker			**Computational Thinker**			**Computational Thinker**		
Abstraction			**Abstraction**			**Abstraction**		
1. Remove background details from an everyday process to highlight essential properties. Examples: When making a sandwich, the type of bread, condiments, meats, and/or vegetables do not affect the fact that one is making a sandwich.			1. Create a function to simplify a task. Example: Get a writing utensil, get paper, jot notes can collectively be named "note taking".			1. Design a function using a programming language that demonstrates abstraction. Example: Create a program that utilizes functions in an effort remove repetitive sequences of steps.		
2. Define a process as a function. Example: Functions or sets of steps combined to produce a process: turning off your alarm + getting out of bed + brushing your teeth + getting dressed = morning routine.						2. Explain how abstraction is used in a given function. Example: Examine a set of block-based code and explain how abstraction was used.		
Algorithms			**Algorithms**			**Algorithms**		
3. Create pseudocode that uses conditionals. Examples: Using if/then/else (If it is raining then bring an umbrella else get wet).			2. Create complex pseudocode using conditionals and Boolean statements. Example: Automated vacuum pseudocode - drive forward until the unit encounters an obstacle; reverse 2"; rotate 30 degrees to the left, repeat.			3. Create an algorithm using a programming language that includes the use of sequencing, selections, or iterations. Example: Use a block-based or script programming language Step 1: Start Step 2: Declare variables a, b and c. Step 3: Read variables a, b and c. Step 4: If a>b If a>c Display a is the largest number. Else Display c is the largest number. Else If b>c Display b is the largest number. Else Display c is the greatest number. Step 5: Stop		
4. Differentiate between flowcharts and pseudocode. Example: Flowcharts use shapes to indicate what to do at each step while pseudocode uses text.			3. Create algorithms that demonstrate sequencing, selection or iteration. Examples: Debit card transactions are approved until the account balance is insufficient to fund the transaction = iteration, do until.			4. Create a function to simplify a task. Example: 3^8 = 3*3*3*3*3*3*3; =(Average) used in a spreadsheet to average a given list of grades.		
5. Identify algorithms that make use of sequencing, selection or iteration. Examples: Sequencing is doing steps in order (put on socks, put on shoes, tie laces); selection uses a Boolean condition to determine which of two parts of an algorithm are used (hair is dirty? True, wash hair; false, do not); iteration is the repetition of part of an algorithm until a condition is met (if you're happy and you know it clap your hands, when you're no longer happy you stop clapping).			4. Design a complex algorithm that contains sequencing, selection or iteration. Examples: Lunch line algorithm that contains parameters for bringing your lunch and multiple options available in the lunch line.					
Programming and Development			**Programming and Development**			**Programming and Development**		

6. Identify steps in developing solutions to complex problems using computational thinking.			5. Solve a complex problem using computational thinking.			5. Discuss the efficiency of an algorithm or technology used to solve complex problems.		
7. Describe how automation works to increase efficiency. Example: Compare the amount of time/work to hand wash a car vs. using an automated car wash.			6. Create and organize algorithms in order to automate a process efficiently. Example: Set of recipes (algorithms) for preparing a complete meal.			6. Describe how algorithmic processes and automation increase efficiency.		
8. Create a program that initializes a variable. Example: Create a flowchart in which the variable or object returns to a starting position upon completion of a task.			7. Create a program that updates the value of a variable in the program. Examples: Update the value of score when a coin is collected (in a flowchart, pseudocode or program).			7. Create a program that includes selection, iteration, or abstraction, and initializes, and updates, at least two variables. Examples: Make a game, interactive card, story, or adventure game.		
			8. Formulate a narrative for each step of a process and its intended result, given pseudocode or code.					
Citizen of a Digital Culture			**Citizen of a Digital Culture**			**Citizen of a Digital Culture**		
Safety, Privacy, and Security			**Safety, Privacy, and Security**			**Safety, Privacy, and Security**		
9. Differentiate between a secure and a non-secure website including how they affect personal data. Example: HTTP vs. HTTPS.			9. Identify common methods of securing data. Examples: Permissions, encryption, vault, locked closet.			8. Compare and contrast common methods of securing data.		
						9. Secure a file or other data. Examples: lock spreadsheet cell(s), password protect, encrypt.		
Legal and Ethical Behavior			**Legal and Ethical Behavior**			**Legal and Ethical Behavior**		
10. Describe the causes and effects of illegal use of intellectual property as it relates to print and digital media, considering copyright, fair use, licensing, sharing, and attribution.			10. Explain social engineering, including countermeasures, and its impact on a digital society. Examples: Phishing, hoaxes, impersonation, baiting, spoofing.			10. Analyze different modes of social engineering and their effectiveness. Examples: Phishing, hoaxes, impersonation, baiting, spoofing.		
11. Differentiate between appropriate and inappropriate digital content and the use of that content.			11. Demonstrate positive, safe, legal, and ethical habits when creating and sharing digital content and identify the consequences of failing to act responsibly.			11. Advocate for positive, safe, legal, and ethical habits when creating and sharing digital content. Example: Students create a brochure that highlights the consequences of illegally downloading media.		
Digital Identity			**Digital Identity**			**Digital Identity**		
12. Define digital permanence.			12. Discuss the impact of data permanence on digital identity including best practices to protect personal digital footprint.			12. Cite evidence of the positive and negative effects of data permanence on personal and professional digital identity.		
13. Define personal privacy, digital footprint, and open communication.								
Impact of Computing			**Impact of Computing**			**Impact of Computing**		
14. Discuss digital globalization and Internet censorship. Examples: Software that scans a website for posts about potential threats; a person's ability to order a product directly from a manufacturer in another part of the world; a student in Africa can take an online math course created in the United States; web-hosting company prevents posting of content.			13. Compare and contrast information available locally and globally. Example: Review an article published in the United States and compare to an article on the same subject published in China.			13. Evaluate the impact of digital globalization on public perception and ways Internet censorship can affect free and equitable access to information.		
15. Identify emerging technologies in computing.			14. Discuss current events related to emerging technologies in computing and the effects such events have on individuals and the global society.			14. Analyze current events related to computing and their effects on education, the workplace, individuals, communities, and global society.		

15. Discuss unique perspectives and needs of a global culture when developing computational artifacts, including options for accessibility for all users. Example: Would students create a webpage aimed at reaching a village of users that have no way access to the Internet?				15. Critique computational artifacts, including options for accessibility for all users, with respect to the needs of a global culture.		
Global Collaborator			**Global Collaborator**		**Global Collaborator**	
Creative Communications			**Creative Communications**		**Creative Communications**	
16. Communicate and/or publish collaboratively to inform others from a variety of backgrounds and cultures about issues and problems.		16. Construct content designed for specific audiences through an appropriate medium. Examples: Design a multi-media children's e-book with an appropriate readability level.			16. Present content designed for specific audiences through an appropriate medium. Example: Create and share a help video for a senior's center that provides tips for online safety.	
		17. Publish content to be available for external feedback.			17. Communicate and publish individually or collaboratively to persuade peers, experts, or community about issues and problems.	
Digital Tools			**Digital Tools**		**Digital Tools**	
17. Type 30 words per minute with 95% accuracy using appropriate keyboarding techniques.		18. Type 35 words per minute with 95% accuracy using appropriate keyboarding techniques.			18. Type 40 words per minute with 95% accuracy using appropriate keyboarding techniques.	
Social Interactions			**Social Interactions**		**Social Interaction**	
18. Define censorship.		19. Discuss the benefits and limitations of censorship.			19. Critique the impacts of censorship as it impacts global society. Example: Create a presentation outlining the social implications of limiting access to web content by favoring or blocking particular products or websites.	
		20. Evaluate the validity and accuracy of a data set.			20. Examine an artifact that demonstrates bias through distorting, exaggerating, or misrepresenting data and redesign it using factual, relevant, unbiased content to more accurately reflect the truth.	
Computing Analyst			**Computing Analyst**		**Computing Analyst**	
Data			**Data**		**Data**	
19. Track data change from a variety of sources. Example: Use editing or versioning tools to track changes to data.		21. Compare common transfer protocols. Examples: FTP, HTTP			21. Differentiate types of data storage and apply most efficient structure. Examples: Stack, array, queue, table, database.	
20. Identify data transferring protocols, visualization, and the purpose of data and methods of storage. Examples: Using an online collection tool or form to collect data that is then stored in a spreadsheet or database.		22. Compare data storage structures. Examples: Stack, array, queue, table, database.			22. Encrypt and decrypt various data. Example: Create and decipher a message sent in a secret code.	
21. Identify varying data structures/systems and methods of classification, including decimal and binary. Examples: Difference between a bit and a byte, bit representation, pixels.						
22. Summarize the purpose of the American Standard Code for Information Interchange (ASCII).						
Systems			**Systems**		**Systems**	

23. Discuss how digital devices may be used to collect, analyze, and present information.			23. Demonstrate the use of a variety of digital devices individually and collaboratively to collect, analyze, and present information for content-related problems.			23. Design a digital artifact to propose a solution for a content-related problem. Example: Create a presentation outlining how to create a cost-efficient method to melt snow on roads during the winter.	
24. Compare and contrast types of networks. Examples: Wired, wireless (WiFi), local, wide area, mobile, Internet, and intranet.			24. Diagram a network given a specific setup or need. Examples: Home network, public network, business network.			24. Compare and contrast common methods of cybersecurity. Example: Discuss how password protections and encryption are similar and different.	
25. Differentiate between secure and non-secure systems.			25. List common methods of system cybersecurity. Examples: Various password requirements, two factor authentication, biometric, geolocation.				
Modeling and Simulation			**Modeling and Simulation**			**Modeling and Simulation**	
26. Explain why professionals may use models as logical representations of physical, mathematical, or logical systems or processes. Example: Students will discuss why an engineer may build a model of a building before actually constructing the building.			26. Categorize models based on the most appropriate representation of various systems.			25. Create a model that represents a system. Example: Food chain, supply and demand.	
27. Explain how simulations serve to implement models.			27. Identify data needed to create a model or simulation of a given event. Examples: When creating a random name generator, the program needs access to a list of possible names.			26. Create a simulation that tests a specific model. Examples: Demonstrate that pressure changes with temperature in a controlled environment; demonstrate that rocket design affects the height of a rocket's launch; demonstrate that the amount of water changes the height of a plant.	
Innovative Designer			**Innovative Designer**			**Innovative Designer**	
Human/Computer Partnerships			**Human/Computer Partnerships**			**Human/Computer Partnerships**	
28. Define assistive technologies and state reasons they may be needed.			29. Classify types of assistive technologies. Examples: Hardware, software, stylus, sticky keys.			27. Analyze assistive technologies and how they improve the quality of life for users. Example: Research multiple speech to text technologies and write a persuasive essay in favor of one over another.	
29. Define artificial intelligence and identify examples of artificial intelligence in the community. Examples: Image recognition, voice assistants.			30. Compare and contrast human intelligence and artificial intelligence.			28. Develop a logical argument for and against artificial intelligence. Examples: Students debate the use of artificial intelligence in self-driving vehicles. Students write a persuasive essay to argue for or against digital personal assistants.	
Design Thinking			**Design Thinking**			**Design Thinking**	
30. Discuss and apply the			31. Apply the problem-solving			29. Create an artifact to solve a	

Overall Impressions:	**Comments:**
What are your overall impressions of the curriculum	
What are the strengths and weaknesses of the materials	
Have you identified gaps within this domain? What are	