

Disciplinary Literacy in North Dakota Content Standards

Literacy and text are specialized across the disciplines. Each discipline has a unique way of using text to create, disseminate, and evaluate knowledge. Strategies employed by learners as they encounter disciplinary text come from the demands of the text and the purpose of the specific discipline.

The information below identifies some of the strategies for disciplinary literacy in various disciplines and aspects of the specific content standards within that discipline that refer to those strategies.

Computer Science and Cybersecurity

Disciplinary Literacy in Computer Science and Cybersecurity focuses on the following:

Reading	Writing	Thinking
<ul style="list-style-type: none"> Identify the strengths and weaknesses of different search engines. Use and evaluate multiple online sources. Evaluate the reliability of content from different websites, authors, and sources. Exchange ideas within and across communities. Synthesize input from multiple sources. Read and use technical manuals and information about innovative practices in technology. Understand the meaning of technical vocabulary. 	<ul style="list-style-type: none"> Create and communicate content using a variety of digital media options. Use the most effective platform to convey information. Determine the most effective way to convey content. Represent ideas symbolically (e.g., color, sound, images) to communicate and persuade. Collect and organize data in graphs and charts. Create computer programs applying technological symbols and coding. Compare software/devices/hardware to identify strengths and weaknesses for the task. Apply technical vocabulary in writing. 	<ul style="list-style-type: none"> Identify strengths and weaknesses of digital platforms for conveying information. Apply knowledge about appropriate and safe online behavior. Develop fluency with features of digital technology used. Make design decisions based on purpose and audience point of view. Collaborate with others to exchange ideas and create a product. Edit work and seek feedback about clarity, message, and impact. Evaluate the impact of online usage on digital identity. Find solutions to technical problems.

The North Dakota Computer Science and Cybersecurity Content Standards provide opportunities to address disciplinary literacy within the following strands:

- **Computational Thinking** – this strand provides opportunities to embed disciplinary literacy as a part of strategies and knowledge used to solve problems, interpret data, and create computer programs.
- **Information Literacy** – this strand provides opportunities to embed disciplinary literacy as learners access, use, and evaluate digital sources to conduct research and share information.
- **Digital Citizenship** – this strand provides opportunities to embed disciplinary literacy as students communicate, collaborate, and interact within the digital environment.



References:

Lent, Releah. (2017, February) *Disciplinary Literacy: A Shift that Makes Sense*. ASCD Express. ASCD.

Lent, Releah. (2019) *Disciplinary Literacy in Action*: Corwin.

North Dakota Computer and Cybersecurity K-12 Standards. (2019, February). Retrieved May 15, 2023, from [North Dakota Computer Science and Cybersecurity Standards](#).