



## 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.

### Mathematics

Disciplinary literacy in mathematics focuses on the following:

Reading	Writing	Thinking
<ul style="list-style-type: none"> <li>• Read critically for details to help find solutions to problems.</li> <li>• Look for patterns and relationships.</li> <li>• Figure out symbols and abstract ideas.</li> <li>• Ask questions.</li> </ul>	<ul style="list-style-type: none"> <li>• Explain, justify, describe, estimate, and analyze.</li> <li>• Write number expressions and formulas.</li> <li>• Apply mathematical vocabulary.</li> <li>• Include reasons and examples.</li> </ul>	<ul style="list-style-type: none"> <li>• Apply previous understanding and look for patterns and connections.</li> <li>• Estimate, generalize, and find exceptions.</li> <li>• Apply mathematical principles.</li> <li>• Apply mathematical reasoning.</li> <li>• Use authentic situations.</li> </ul>

*"Disciplinary Literacy: A Shift that Makes Sense"* Releah Lent (2017)

The North Dakota Mathematics Content Standards address disciplinary literacy in math attributes.

- **Problem-Solving** – this attribute includes the practice of making sense of problems, persevering in solving them, and attending to precision.
- **Connections** – this attribute includes looking for and using the structure and looking for and expressing regularity in repeated reasoning.
- **Reasoning and Proof** – this attribute includes the practices of modeling and using tools strategically, reasoning abstractly and quantitatively, and the communication practices of constructing viable arguments and critiquing the reasoning of others.

### 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 Mathematics Standards. (2023, July). Retrieved July 18, 2023, from <https://www.nd.gov/dpi/districtschools/k-12-education-content-standards>.