Literacy Insights:
A Curated Collection of Academic Articles

DISCIPLINARY LITERACY: SCIENCE

This collection of *Journal of Adolescent & Adult Literacy (JAAL)* articles and resources focuses on disciplinary literacy in science education. These studies explore how science teachers can provide equitable access to authentic scientific texts while enhancing students' understanding of complex scientific concepts through effective disciplinary literacy practices.

Articles

Faller, S.E. (2018). Reading and writing as scientists? Text genres and literacy practices in girls' middle-grade science. *Journal of Adolescent & Adult Literacy*, *61*(4), 381–390.

Investigate how reading and writing genres are introduced and used in middle-grade science classrooms.

Greenleaf, C., Hinchman, K.A., & Brown, W. (2023). Science teachers designing text use for equitable Next Generation Science instruction. *Journal of Adolescent & Adult Literacy*, *67*(3), 162–174.

Uncover how high school science teachers curate and teach relevant, multimodal science texts to their students.

Watts-Taffe, S., Vaughn, L.M., & Jacquez, F. (2022). Disciplinary literacy in action: High school students doing research for change. *Journal of Adolescent & Adult Literacy*, *65*(4), 331–341.

Explore how two Youth Participatory Action Research projects use disciplinary practices in science-based classrooms to produce change.

Wilson-Lopez, A., & Minichiello, A. (2017). Disciplinary literacy in engineering. *Journal of Adolescent & Adult Literacy*, *61*(1), 7–14.

Learn how disciplinary literacy in engineering encourages teachers to draw from students' home languages and knowledge to promote equity.

Additional Resource

Designing Text Use for Science Teachers with Drs. Cynthia Greenleaf, Kathleen Hinchman, and Willard Brown [*JAAL Podcast*]

Discussion Starters

- What are some examples of disciplinary literacy practices specific to science? How do these practices contribute to students' understanding of scientific concepts and processes?
- Discuss the role of authentic scientific texts in developing students' disciplinary literacy. How might teachers guide students in critically analyzing these texts?
- How can teachers support students' ability to communicate scientific ideas effectively through writing? How might this differ from writing instruction in other subjects?
- Discuss the importance of equity in science education, particularly regarding literacy practices. How might teachers ensure equitable access to quality texts and resources for all students?

Share your thoughts with colleagues around the world by posting them to the Literacy Teaching and Learning discussion group on LinkedIn.

The Journal of Adolescent & Adult Literacy **highlights innovative, peer-reviewed, research-based practices aimed at improving engagement and achievement among literacy learners ages 12 and older.**
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