

## Reading for Science at Home

*Adapted from the article [All Students can Read to Learn Science!](#) by Tiffany L. Gallagher, Ph.D. and Xavier Fazio, Ed.D., Brock University*

### References

- Almasi, J. (2003). Teaching strategic processes in reading. New York: Guilford Press.
- Biancarosa, C., & Snow, C. E. (2006). Reading next—A vision for action and research in middle and high school literacy: A report to Carnegie Corporation of New York (2nd ed.).  
Washington, DC: Alliance for Excellent Education
- Bradbury, L.U. (2014). Linking science and language arts: A review of the literature which compares integrated versus non-integrated approaches. *Journal of Science Teacher Education*, 25(4), 465-488.
- Brigham, F., Scruggs, T., & Mastropieri, M. (2011). Science education and students with learning disabilities. *Learning Disabilities Research & Practice*, 26(4), 223-232.
- Cavagnetto, A. R. (2010). Argument to foster scientific literacy: A review of argument interventions in K-12 science contexts. *Review of Educational Research*, 80(3), 336–371
- Cervetti, G., & Pearson, P. (2012). Reading, writing, and thinking like a scientist. *Journal of Adolescent & Adult Literacy*, 55(7), 580-586.
- Cervetti, G. N., Barber, J., Dorph, R., Pearson, D., & Goldschmidt, P. G. (2012). The impact of an integrated approach to science and literacy in elementary school classrooms. *Journal of Research in Science Teaching*, 49(5), 631–658.
- Dexter, D. D., & Hughes, C. A. (2011). Graphic organizers and students with learning disabilities: A meta-analysis. *Learning Disability Quarterly*, 34, 51–72
- Dexter, D.D., Park, Y., & Hughes, C. (2011). A meta-analytic review of graphic organizers and science instruction for adolescents with learning disabilities: Implications for the intermediate and secondary science classroom. *Learning Disabilities Research*, 26(4), 204-213.
- Fang, Z., Lamme, L., Pringle, R., Patrick, J., Sanders, J., Zmach, C., et al. (2008). Integrating reading into middle school science: What we did, found and learned. *International Journal of Science Education*, 30(15), 2067-2089.
- Fazio, X. & Gallagher, T. L. (2016). Science and literacy integration in elementary classrooms: instructional enactments and student learning outcomes. Presented at the Annual Convention of the American Educational Research Association (AERA). Washington, DC
- Fazio, X. & Gallagher, T.L. (2015). Are We Missing the Mark when Encouraging the Integration of Science and Literacy? Presented at the Ministry of Education/Faculties of Education Forum. Toronto, ON.

Fazio, X. & Gallagher, T. (2014). Morphological levels of science content vocabulary: Implications for science-based texts in elementary classroom. *International Journal of Science and Mathematics Education*. 12(6), 1407-1423.

Gallagher, T. L., Fazio, X. & Ciampa, K. (2017). A comparison of readability in science-based texts: Implications for elementary teachers. *Canadian Journal of Education*, 40(1), 2-29.

Goldschmidt, P. (2010). Evaluation of Seeds of Science/Roots of Reading: Effective tools for developing literacy through science in the early grades. National Center for Research on Evaluation, Standards, and Student Testing (CRESST). Available: [http://www.scienceandliteracy.org/sites/scienceandliteracy.org/files/biblio/seeds\\_eval\\_in\\_cresst\\_deliv\\_fm\\_060210\\_pdf\\_21403.pdf](http://www.scienceandliteracy.org/sites/scienceandliteracy.org/files/biblio/seeds_eval_in_cresst_deliv_fm_060210_pdf_21403.pdf)

Hallahan, D., Kauffman, J., McIntryre, L., & Mykota, D. (2010). *Exceptional learners: An introduction to special education*. Toronto, ON: Pearson Education.

Johnson, B. & Zabucky, K. (2011). Improving middle and high school students' comprehension of science texts. *International Electronic Journal of Elementary Education*, 4(1), 19-31.

Kosanovich, M. (2013). Promoting reading comprehension in secondary students with LD. Council for Learning Disabilities. Retrieved: <http://www.council-for-learning-disabilities.org/promoting-reading-comprehension-in-secondary-students-with-learning-disabilities>

Krajcik, J.S., & Sutherland, L.M. (2010). Supporting students in developing literacy in science. *Science*, 328. DOI: 10.1126/science.1182593.

Liang, L., Watkins, N., & Day, D. (2013). Selecting quality nonfiction classroom texts that meet CCSS qualifications. *Reading Today*, Oct/Nov. 25-26.

Mason, L. H., & Hedin, L. (2011). Reading science text: Challenges for students with learning disabilities and considerations for teachers. *Learning Disabilities Research and Practice*, 26, 214–222.

Ministry of Education (2013). *Learning for all*. Available: <http://www.edu.gov.on.ca/eng/general/elemsec/speced/LearningforAll2013.pdf>

Ministry of Education (2016). *Adolescent Literacy Guide (Revised)*. Available: [http://www.edugains.ca/resources/LIT/AdolescentLiteracy/Vision/AdolescentLiteracyGuide\\_Interactive.pdf](http://www.edugains.ca/resources/LIT/AdolescentLiteracy/Vision/AdolescentLiteracyGuide_Interactive.pdf)

Moje, E. B. (2008). Foregrounding the disciplines in secondary literacy teaching and learning: A call for change. *Journal of Adolescent & Adult Literacy*, 52(2), 96-107.

National Audubon Society (n.d.). Eastern Whip-poor-will. Available: <http://www.audubon.org/field-guide/bird/eastern-whip-poor-will>

National Geographic Kids (n.d.). Raccoon. Available: <http://kids.nationalgeographic.com/animals/raccoon/#raccoon-grass.jpg>

National Research Council. (2014). *Literacy for science: Exploring the intersection of the next generation science standards and common core for ELA standards, a workshop summary*. Board on Science

Education, Division of Behavioral and Social Sciences and Education. Washington, DC: The National Academies Press.

Patrick, H., Mantzicopoulos, P., & Samarapungavan, A. (2009). Motivation for learning science in kindergarten: Is there a gender gap and does integrated inquiry and literacy instruction make a difference. *Journal of Research in Science Teaching*, 46(2), 166–191.

Pearson, D. P., Moje, E., & Greenleaf, C. (2010). Literacy and science: Each in the service of the other. *Science*, 328. DOI: 10.1126/science.1182595.

Pitcher, B. & Fang, Z. (2007). Can we trust levelled texts? An examination of their reliability and quality from a linguistic perspective. *Literacy*, 41(1), 43-51.

Rasinski, T, Padak, N, Newton, R. M., Newton, E. & Bromley, K (2008). *Greek & Latin roots*.

Huntington Beach, CA: Teacher Created Materials.

Scruggs, T. E., Mastropieri, M. A., & Okolo, C. M. (2008). Science and social studies for students with disabilities. *Focus on Exceptional Children*, 41(2), 1–24.

Scruggs, T. E., Mastropieri, M. A., Berkeley, S. L., & Marshak, L. (2010). Mnemonic strategies: Evidence-based practice and practice-based evidence. *Intervention in School and Clinic*, 46, 79–86.

Shanahan, T., & Shanahan, C. (2008). Teaching disciplinary literacy to adolescents: Rethinking content-area literacy. *Harvard Educational Review*, 78(1), 40–59.

Therrien, W., Taylor, J., Hosp, J., Kaldenberg, E., & Gorsh, J. (2011). Science instruction for students with learning disabilities: A meta-analysis. *Learning Disabilities Research & Practice*, 26(4), 188-203.

Villanueva, M., Taylor, J., Therrien, W., & Hand, B. (2012). Science education for students with special needs. *Studies in Science Education*, 48(2), 187-215.

Vitale, M. R., & Romance, N. R. (2012). Using in-depth science instruction to accelerate student achievement in science and reading comprehension in grades 1–2. *International Journal of Science and Mathematics Education*, 10(2), 457–472.

Weiser, B. (2013). *Effective vocabulary instruction for kindergarten to 12th grade students experiencing learning disabilities*. Council for Learning Disabilities. Available: <http://www.council-for-learning-disabilities.org/wp-content/uploads/2013/11/Vocabulary-Word-2013.pdf>

Yore, L., Bisanz, G., & Hand, B. (2003). Examining the literacy component of science literacy: 25 years of language arts and science research. *International Journal of Science Education*, 25(6), 689-725.