

RESOURCE LIST

OVERCOMING BARRIERS TO GENDER INCLUSION IN STEM CLASSROOMS

Veillez trouver les ressources en français plus bas.

Part I: Research Articles

Aina, O. E., & Cameron, P. A. (2011). Why does gender matter? counteracting stereotypes with young children. *Dimensions of Early Childhood*, 39(3), 11–20.

Archer, L., DeWitt, J., Osborne, J., Dillon, J., Willis, B., & Wong, B. (2010). “Doing” science versus “being” a scientist: Examining 10/11-year-old schoolchildren’s constructions of science through the lens of identity. *Science Education*, 94(4), 617–639.
<https://dx.doi.org/10.1002/sce.20399>

Archer, L., DeWitt, J., & Dillon, J. (2014). “It didn’t really change my opinion”: Exploring what works, what doesn’t and why in a school science, technology, engineering and mathematics careers intervention. *Research in Science & Technological Education*, 32(1), 35–55. <https://dx.doi.org/10.1080/02635143.2013.865601>

Barlow, R. (2014, January 16). *BU research: A riddle reveals depth of gender bias*. BU Today. <https://www.bu.edu/articles/2014/bu-research-riddle-reveals-the-depth-of-gender-bias/>

Canadian Institutes for Health Research. (2020). *Meet the methods series: “What and who is two-spirit” in health research*.
https://cihr-irsc.gc.ca/e/documents/igh_two_spirit-en.pdf

Cheryan, S., Ziegler, S. A., Montoya, A. K., & Jiang, L. (2017). Why are some STEM fields more gender balanced than others? *Psychological Bulletin*, 143(1), 1–35.
<https://dx.doi.org/10.1037/bul0000052>

DeWitt, J., Archer, L., & Moote, J. (2019). 15/16-year-old students’ reasons for choosing and not choosing physics at a level. *International Journal of Science and Mathematics Education*, 17(6), 1071–1087. <https://dx.doi.org/10.1007/s10763-018-9900-4>

Francis, B., Archer, L., Moote, J., de Witt, J., & Yeomans, L. (2017). Femininity, science, and the denigration of the girly girl. *British Journal of Sociology of Education*, 38(8), 1097–1110.
<https://dx.doi.org/10.1080/01425692.2016.1253455>



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Francis, B., Archer, L., Moote, J., DeWitt, J., MacLeod, E., Yeomans, L. (2017). The construction of physics as a quintessentially masculine subject: Young people's perceptions of gender issues in access to physics. *Sex Roles*, 76, 156–174 (2017).

<https://doi.org/10.1007/s11199-016-0669-z>

Franz-Odendaal, T., Blotnicky, K., French, F., & Joy, P. (2016). Experiences and perceptions of STEM subjects, careers, and engagement in STEM activities among middle school students in the maritime provinces. *Canadian Journal of Science, Mathematics and Technology Education*, 16(2), 153–168. <https://dx.doi.org/10.1080/14926156.2016.1166291>

Hilliard, L. J., & Liben, L. S. (2010). Differing levels of gender salience in preschool classrooms: Effects on children's gender attitudes and intergroup bias. *Child Development*, 81(6), 1787–1798. <https://www.jstor.org/stable/40925299>

Hogue, M. M. (2016). Aboriginal ways of knowing and learning, 21st century learners, and STEM success. *In Education*, 22(1), 161–172.

Kelly, A. (1986). The construction of masculine science. *British Journal of Sociology of Education*, 6(2), 133–154, <https://doi.org/10.1080/0142569850060201>

Mullis, I. V. S., Martin, M. O., Foy, P., Kelly, D. L., & Fishbein, B. (2020). *TIMSS 2019 international results in mathematics and science*. TIMSS & PIRLS International Study Center.

<https://timssandpirls.bc.edu/timss2019/international-results/>

Parson, L., & Ozaki, C. C. (2018). Gendered student ideals in STEM in higher education. *NASPA Journal about Women in Higher Education*, 11(2), 171–190.

<https://dx.doi.org/10.1080/19407882.2017.1392323>

Régner, I., Steele, J., Ambady, N., Thinus-Blanc, C. & Huguet, P. (2014). Our future scientists: A review of stereotype threat in girls from early elementary school to middle school. *International Review of Social Psychology*, 27(3–4), 13–51.

Schinske, J. N., Perkins, H., Snyder, A., & Wyer, M. (2016). Scientist spotlight homework assignments shift students' stereotypes of scientists and enhance science identity in a diverse introductory science class. *CBE Life Sciences Education*, 15(3), ar47.

<https://doi.org/10.1187/cbe.16-01-0002>



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Schleicher, A. (2019). *PISA 2018: Insights and interpretations*. Organisation for Economic Co-operation and Development (OECD).

Shah, N., Christensen, J. A., Ortiz, N. A., Nguyen, A., Byun, S., Stroupe, D., & Reinholz, D. L. (2020). Racial hierarchy and masculine space: Participatory in/equity in computational physics classrooms. *Computer Science Education*, 30(3), 254–278.
<https://dx.doi.org/10.1080/08993408.2020.1805285>

Statistics Canada. (2018). *Study: Gender gaps: The effects of pay transparency and women in STEM occupations*. <https://www150.statcan.gc.ca/n1/daily-quotidien/190916/dq190916b-eng.pdf>

Statistics Canada. (2020). *Post-secondary enrolments and graduates, 2017/18*.
<https://www150.statcan.gc.ca/n1/daily-quotidien/200219/dq200219b-eng.htm>

Taylor, M. G. (1996). The development of children's beliefs about social and biological aspects of gender differences. *Child Development*, 67(1), 1555–1571.
<https://doi.org/10.2307/1131718>

Vantieghem, W., Vermeersch, H., & Van Houtte, M. (2014). Why “gender” disappeared from the gender gap: (re-)introducing gender identity theory to educational gender gap research. *Social Psychology of Education: An International Journal*, 17(3), 357–381.
<https://dx.doi.org/10.1007/s11218-014-9248-8>

Ware, M., Sampson, C., Lann, D., Linard, E., Garcia Chance, L. (2019) Bridging the gap: Bringing professionals into the classroom to effectively teach environmental science concepts. *The American Biology Teacher*, 81(9), 618–624.
<https://doi.org/10.1525/abt.2019.81.9.618>



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Part 2: Classroom Resources

Cowan, A. (2021). *Women's history month: 50+ women in science and engineering to learn more about*. Science Buddies. <https://www.sciencebuddies.org/blog/women-in-science-history>

Cowan, E. (n.d.). *Team roles and STEM inclusion*. Science Buddies. <https://www.sciencebuddies.org/blog/inclusive-STEM-group-roles>

Ingenium Canada. (n.d.). *Educational resources*. <https://womeninstem.ingeniumcanada.org/resources/>

Ingenium Canada. (n.d.). *Posters*. <https://womeninstem.ingeniumcanada.org/posters/>

Let's Talk Science. (2022). *Careers*. <https://letstalkscience.ca/careers>

Perimeter Institute. (2022). *Forces of nature: Poster collection*. <https://resources.perimeterinstitute.ca/collections/posters/products/forces-of-nature-poster-collection?variant=38087297663154>

Richardson, T., & Vander Meij, J. (2022). *(Mostly) anonymous questions*. Science Teachers' Association of Ontario. <https://stao.ca/mostly-anonymous-questions/>

SeeltBeltSTEMIt. (2022). *STEM it role models*. <https://www.seeltbeitstemit.com/get-inspired>

STEMneutral. (2020). *STEMneutral resources*. <https://www.stemneutral.com/overview>

The Plenary Co. (2019, June 4). *Scientist-of-the-month toolkits*. I Am A Scientist. <https://www.iamascientist.info/educators>



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Vandermeij, J. (2015). *Videoconferencing to connect students with science & STEM experts*. Science Teachers' Association of Ontario.

<https://connex.stao.ca/classroom-catalyst/videoconferencing-to-connect-students-with-science-stem-experts>

YESTEM Project UK Team. (2020). *The equity compass: A tool for supporting socially just practice*. <https://yestem.org/wp-content/uploads/2020/10/EQUITY-COMPASS-YESTEM-INSIGHT.pdf>



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1^{re} partie : Articles de recherche

Fournier, J. *Miroir, Miroir? comment puis-je me rattraper pour engager des jeunes en génie? Proceedings of the Canadian Engineering Education Association (CEEA)*. Consulté le 8 février 2022, à l'adresse

<https://ojs.library.queensu.ca/index.php/PCEEA/article/view/13814>

McNally, S. (Mai 2020). *Encourager les filles dans les STIM : que peuvent faire les écoles? EENEE POLICY BRIEF 2/2020*. Consulté le 8 février 2022, à l'adresse http://www.education-economics.org/fr/dms/EENEE/Policy_Briefs/French/PolicyBrief2_2020_franz.pdf



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2^e partie : Ressources pédagogiques

Affiches. Femmes en Sciences Technologie Ingénierie et Mathématiques. Consulté le 8 février 2022, à l'adresse <https://femmesenstim.ingeniumcanada.org/affiches/>

Forces de la Nature : collection d'affiches. Institut Périmètre. Consulté le 8 février 2022, à l'adresse <https://resources.perimeterinstitute.ca/collections/posters/products/forces-of-nature-poster-collection?variant=38087297695922>

Liens utiles – AFFESTIM. Association de la francophonie à propos des femmes en sciences, technologies, ingénierie et mathématiques. Consulté le 8 février 2022, à l'adresse <https://affestim.org/liens-utiles/>

Ressources de Carrière : Parlons Sciences. Ressources de carrière | Parlons sciences. Consulté le 8 février 2022, à l'adresse https://parlonssciences.ca/carrieres?_ga=2.218572761.176815768.1648127516-1727430711.1648127516

Ressources. Femmes en Sciences Technologie Ingénierie et Mathématiques. Consulté le 8 février 2022, à l'adresse <https://femmesenstim.ingeniumcanada.org/ressources/>

Vander Meij, J., & Richardson, T. *(Mostly) Anonymous Questions.* Association des professeurs de science de l'Ontario. Consulté le 8 février 2022, à l'adresse <https://stao.ca/mostly-anonymous-questions/>

www.yestem.org. *The Equity Compass: A Tool for supporting socially just practice.* YESTEM Project UK Team (2020). Consulté le 8 février 2022, à l'adresse <https://yestem.org/wp-content/uploads/2020/10/EQUITY-COMPASS-YESTEM-INSIGHT.pdf>



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