

Garden-Based Learning at North Elementary School: Publications, Presentations, Grants/Awards, & Web Presence

*A Partnership between North Elementary School, WVU College of Education and Human Services, and
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ARTICLES, PEER REVIEWED

- Melissa J. Luna, Sarah J. Selmer & James A. Rye (2018). Teachers' Noticing of Students' Thinking in Science Through Classroom Artifacts: In What Ways Are Science and Engineering Practices Evident?, *Journal of Science Teacher Education*, 29(2), 148-172, DOI: [10.1080/1046560X.2018.1427418](https://doi.org/10.1080/1046560X.2018.1427418).
- Rummel, S., Rye, J. A., Selmer, S. J., & Luna, M. J. (2017). Action Research to Integrate Science with Mathematics through Garden-Based Learning at the Elementary School Level. *Journal of Advances in Educational Research*, 2(4), 199-211. DOI: 10.22606/jaer.2017.24002. On-line at: http://www.isaacpub.org/images/PaperPDF/JAER_100010_2017110911075401207.pdf
- Stansbury, K., Rye, J., Luna, M., & Lutz, A. (2017). A cucurbit ripe for building vocabulary. *Science and Children* 55(3), 51-59.
- Thorn, C. Rye, J., & Walls, H. (2017). Zooming in on science. *Science and Children*, 54(5), 45-53.
- Selmer, S., Valentine, K., Luna, M., Rummel, S., & Rye, J. (2016). How can we best use our school garden space? *Australian Primary Mathematics Classroom* 21(4), 3-10.
- Luna, M., Rye, J., Forinash, M., & Minor, A. (2015). Gardening for Homonyms: Integrating Science and Language Arts to Support Children's Creative Use of Multiple Meaning Words. *Science Activities*, 52, 92-105. DOI: 10.1080/00368121.2015.1102698
- Selmer, S., Luna, M., Rye, J. (2015). Insights into teachers' experiences implementing garden-based learning: Characterizing the relationship between the teacher and the curriculum. *Teacher's College Record*, 117(9), 36 pages
- Rye, J., Forinash, M., Rummel, S., Minor, A., & Scott, H.R. (2015). Garden-based learning: Its just the berries. *Science and Children* 52(8), 58-67.
- Selmer, S., Rye, J., Malone, E., Trebino, K., & Fernandez, D. (2014). What shall we grow in our school garden to sell at the farmers market: Initiating statistical literacy through science and mathematics integration. *Science Activities* 51(1), 17-32. DOI 10.1080/00368121.2013.860418
- Rye, J., Selmer, S., Pennington, S., Vanhorn, L., Fox, S., & Kane, S. (2012). Elementary School Garden Programs Enhance Science Education for All Learners. *TEACHING Exceptional Children*, 44(6), 58-65.

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CURRICULA AND MAGAZINES

J. Rye, M. Luna, A. Murphy, S. Pennington, L. VanHorn, K. Stansbury, & M. Forinash. (April, 2018). GigaPan in the Garden. *GigaPan Magazine*, 7(1). On-line at <http://gigapanmagazine.org/Vol7/issue1/>

L. VanHorn, C. Pizantias, H. Walls, S. Rummel, A. Minor, M. Forinash, S. Fagan, K. Berry, S. Lewis, J. Rye, M. Luna. (2015). Garden Project-Based Learning Units. West Virginia Department of Education, Office of Child Nutrition. Individuals listed are authors/coauthors of one or more individual units. On-line at: <https://www.westvirginiafarmentoschool.com/garden-based-learning-curriculum>

REGIONAL & NATIONAL CONFERENCES, PEER REVIEWED

Murphy, A. N., Luna, M. J., & Rye, J. A. Roving with GigaPan Technology in a Garden-Based Science Learning Context. Paper presented at the National Association for Research in Science Teaching Annual Meeting, Atlanta, GA, March 10-13, 2018.

Stone, H., & Rye, J. A Fruity Investigation Featuring Data and Measurement. A presentation at the National Council of Teachers of Mathematics Annual Meeting and Exposition, San Antonio, TX April 5-8, 2017

Rye, J., Forinash, M., Rummel, S., & Stone, H. School Gardening for Authentic Learning in PDS Contexts. A roundtable presentation at the Annual Meeting of the National Association for Professional Development Schools, March 9-11, 2017, Washington D.C.

Forinash, M., Stone, H., & Rye, J. Let us grow lettuce: An authentic project from a PDS collaboration. A presentation at the Annual Meeting of the National Association for Professional Development Schools, March 9-11, 2017, Washington D.C.

Luna, M., Selmer, S., & Rye, J. Teachers' noticing of students' thinking through classroom artifacts: How are science and engineering practices evident? Presentation at the American Educational Research Association 2016 Annual Meeting, April 8-12, Washington, D.C.

Murphy, A., Luna, M., Rye, J. Teachers rove with GigaPan technology: Zooming in on garden-based learning and STEM teaching. Mid-Atlantic Association of Science Teacher Educators, Salt Fork State Park, Ohio, October 23-24, 2015.

Luna, M., Selmer, S., & Rye, J. Teachers' noticing of students' thinking in artifacts from a garden-based learning context. American Educational Research Association (AERA) 2015 Annual Meeting, April 16-20, Chicago.

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Rye, J., & Luna, M. Integrating GigaPan with Elementary Science Methods to Enrich Preservice Teachers Understandings About Garden-Based Learning and Connections to the Next Generation Science Standards. Mid-Atlantic Association of Science Teacher Educators, Blowing Rock, NC Sept 22, 2014.

Selmer, S., Luna, M., & Rye, J. Implementing garden-based learning: What do teachers experience as factors that support or challenge their efforts?" Poster presentation at the April 3-7, 2014 AERA Annual Meeting.

Luna, M., Selmer, S., & Rye, J. Two teachers experiences of implementation of garden-based learning. Presentation at the Mid-Atlantic Association of Science Teacher Educators Annual Meeting, September 20-21, 2013, Glade Springs, WV.

Selmer, S., Rye, J., Forinash, M., Angotti, A., & Fratoni, N. Garden-based learning for length, area, and volume. Presentation provided at the National Council of Teachers of Mathematics Annual Convention, April, 2013, Denver, CO.

Selmer, S., Bolyard, J. Rye, J., Trebino, K., Malone, E., & Fernandez, D., Making the mathematics classroom come alive through garden-based learning. Presentation provided at the National Council of Teachers of Mathematics Annual Convention, April, 2012, Philadelphia, PA

STATE CONFERENCES

Rye, J., Forinash, M., Stone, H., Hinshaw, A. Field-trip/tour of North Elementary School Garden-based Learning Program. West Virginia Science Teachers Association Annual Conference, Morgantown, WV October 27-29, 2016.

Rye, J., Forinash, M., Stone, H., Hinshaw, A., Luna, M. Share-a-thon: Garden-based Learning In and Out of the Classroom. West Virginia Science Teachers Association Annual Conference, Morgantown, WV October 27-29, 2016.

Rye, J., Forinash, M., Stone, H., Hinshaw, A.. Poster/booth invited presentation: WVU Teacher Education Program-North Elementary School Partnership for Garden-Based Learning. "Future Forward Learning:" October 17, 2016 WV Education Summit, The Education Alliance, Charleston, WV.

Rye, J., Luna, M, Porter, A., Haught, A., Boot, J., Cain, R., & Murphy, A., Gigapan in the Garden. West Virginia Science Teachers Association Annual Conference, Flatwoods, WV, November 5-7, 2015

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Rye, J., Luna, M., Garden Project Based Learning. West Virginia Science Teachers Association Annual Conference, Flattwoods, WV, November 5-7, 2015

Lupo, A., & Rye, J. Garden-Based Learning at North Elementary School: A Green Endeavor. West Virginia Building Conference, Glenville State University, Oct 27, 2014.

Webb, N. & Lupo, A. North Elementary—Gardening across grade levels. West Virginia School Garden Symposium. September 13, 2014. Charleston, WV.

Rye, J. Connecting curriculum to standards. West Virginia School Garden Symposium. September 13, 2014, Charleston, WV.

Onkow, V., Rye, J., & Forinash, M. Onkow, V., Rye, J., & Forinash, M. North Elementary School (Garden-Based Learning). Poster Presentation at Farm to School Showcase, January 17-18, 2014. Greenbrier Resort, White Sulphur Springs, WV.

Rye, J., Forinash, M., Hoffman, J. Little, S., & Luna, L., Garden-based learning in and out of the classroom. Workshop provided at the West Virginia Science Teachers Association Convention, Nov 1-3, 2013, Morgantown, WV.

Luna, M., Rye, J., Forinash, M. Gardening for homonyms. Presentation provided at the West Virginia Science Teachers Association Convention, Nov 1-3, 2013, Morgantown, WV.

Rye, J., Angotti, A., Mongold, A., & Fratoni, N. (2012). School Garden Programs for Interdisciplinary Science Learning. Presentation at the West Virginia Science Teachers Association Annual Conference, November 1-3, 2012, Morgantown, WV.

Rye, J., Kane, S., & Forinash, M. Garden-Based Learning: A grass-roots approach. 2012 (February) West Virginia Professional Development Schools Conference, Flatwoods, WV

GRANTS/AWARDS

REAP Recycling Assistance Grant. West Virginia Department of Environmental Protection. 2018-19. \$3,455.80 (Authors: K. Kieffer, S. Rummel, S. Pennington, L. VanHorn).

STEAM Grant: Poetry and Pastels and Pollinators, Oh My!! Intermediate Unit 1/Benedum Foundation/Chevron Foundation. \$5000. 2018-19 (Authors: S. Pennington, L. VanHorn.)

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STEAM Power WV. West Virginia Department of Arts, Culture and History. Claude Worthington Benedum Foundation with additional support from the Governor's STEM initiative. \$3,415.00 (Authors: S. Pennington, S. Rummel) 2018-19.

Community and Environmental Educator Award. Monongahela Conservation District, West Virginia. (Awardee: J. Rye) 2018.

STEAM Grant. West Virginia Department of Education, West Virginia Division of Culture and History. \$5000. 2016.

Green Ribbon Award. United States Department of Education. 2015.

West Virginia Small Farms Center. \$2500. 2014.

Conservation Education Award. Monongahela Conservation District. 2014.

Dominion Hope Foundation K-12 Partnership Award, "The Birds and the Bees...and the Butterflies (Bats, Moths, and Beetles, too)." \$5600. (Author: C Pizanias). 2014-15.

Monongahela Soil Conservation District. \$2000 Soil/Supplies for High Tunnel. August, 2014

Office of Child Nutrition, West Virginia Department of Education. \$15,600 for Installing High Tunnel. 2014

Office of Child Nutrition, West Virginia Department of Education. \$10,000 for Garden Project Based Learning Curriculum Development. 2014

Outstanding Community Project for Year. West Virginia State Master Gardeners Association. 2014

Americorps Grant, WVDE Child Nutrition Office. Approximately \$25,000 to fund two-year Americorps Service position. (PI: N Webb). October 2013-Sept 2015.

Research-Intensive Grant, "Supporting Teachers in Integrating GBL Across the Curriculum." WV Benedum Foundation, ~\$5000. 2013-14.

.Mountaineer Educational CREATE Center. Claude Worthington Benedum Foundation. \$200,000 (Portion of which was used to support garden integration of GigaPan at North Elementary) (PI: L. Schrum, Dean, College of Education and Human Services). 2013-2015.

Monongalia County Master Gardeners Association. \$700

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National Association of Elementary School Principals and MetLife Grant, “Sharing the Dream.” \$5000. (Author: N. Webb.) 2013.

Research-Intensive Grant, “Using School Gardening as a Vehicle for Project-Based Learning.” WV Benedum Foundation. \$5100. 2012-13.

Whole Kids Foundation/Foodcorps Garden Grant. \$2000. (PI: L VanHorn,). 2012-13

Lowes Toolbox for Education award. \$5000. (PI: L VanHorn). 2011-12

WEB PRESENCE

GigaPan Utilization for Early Elementary Grades Science.

<https://www.youtube.com/watch?v=q8e1ngTLwVA&feature=youtu.be>

GigaPan Provides Cooperation Opportunity.

<https://animoto.com/play/sImKWr0MWjDboogfF1M7sQ?autostart=1>

Garden-Based Learning, WVU STEM Education.

<https://stemedu.cehs.wvu.edu/funded/garden-based-learning>

STEM Education Initiative at WVU, Funded Projects (see Garden Based Learning)

<http://stemedu.cehs.wvu.edu/>

Grow. Play. Learn. Garden-Based Learning Projects at North Elementary, Morgantown WV

<https://northelementarygarden.wordpress.com/>

Indoor School Gardens: A Growing Trend. PR Newswire, Sept 24, 2014.

<http://www.prnewswire.com/news-releases/indoor-school-gardens-a-growing-trend-276921631.html>

“North Elementary School Garden Based Learning” (Brief documentary featuring interviews with teachers and principals) <http://stemedu.cehs.wvu.edu/funded-projects/gbl>

Invitation/Visit to First Lady Michelle Obama/Whitehouse Garden

<http://www.whitehouse.gov/the-press-office/2013/10/30/remarks-first-lady-white-house-kitchen-garden-harvest>

Morgantown Sustainable Schools http://communitydesign.wvu.edu/our_work/growing-sustainable-schools-wv

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WV School Garden Symposium <http://www.wvhub.org/wvffc/news/school-garden-symposium-success>

EarthBox in Our Schools. <http://earthbox.com/newsletters/education/winter2013.html>

North Elementary School site at Edible School Yards Project
<http://edibleschoolyard.org/program/north-elementary-school>

“Revolutionizing Learning Through School Garden Programs” (Jamie Oliver’s Food Revolution Site) <http://www.jamieoliver.com/us/foundation/jamies-food-revolution/news-content/revolutionizing-learning-through-school>

“Growing Food Education in Schools” (Edible School Yard and Jamie Oliver’s Food Revolution)
<http://www.youtube.com/watch?v=oSuvI84WRQQ&list=UUXI0DbmwqItOP4bxxwwgVQ&index=1>