

Appendix C

Further Reading/Resources

Online

Mathematics Content, Standards, and Virtual Manipulatives

<http://www.achievethecore.org>

A nonprofit organization dedicated to helping teachers and school leaders implement high-quality, college- and career-ready standards. The site includes planning materials, professional development resources, assessment information, and implementation support.

<http://illustrativemathematics.org>

A variety of videos, tasks, and suggestions for professional development accessible to all teachers.

<http://ime.math.arizona.edu/progressions>

The series of progressions documents written by leading researchers in the field summarizing the standards progressions for specific mathematical content domains.

<http://nlvm.usu.edu>

The National Library of Virtual Manipulatives offers a library of uniquely interactive, web-based virtual manipulatives or concept tutorials for mathematics instruction.

Sources for Problems, Tasks, and Lesson Protocols

<https://bstockus.wordpress.com/numberless-word-problem>

Numberless word problems designed to provide scaffolding that allows students the opportunity to develop a better understanding of the underlying structure of word problems.

<https://gfletchy.com>

3-Act Lessons and Mathematical Progressions videos for Grades K–7.

<http://www.pz.harvard.edu/projects/visible-thinking>

Harvard Zero Project describes thinking routines that can be applied to K–12 mathematics classrooms.

<http://illuminations.nctm.org>

A collection of high-quality tasks, lessons, and activities that align with the Common Core standards and include the standards for mathematical practice.

<http://mathforum.org>

The Math Forum at NCTM provides a plethora of online resources, including Problem of the Week and the Notice and Wonder protocol.

<http://mathpickle.com>

A free online resource of original mathematical puzzles, games, and unsolved problems for K–12 teachers. It is supported by the American Institute of Mathematics.

<http://nrich.maths.org>

Free enrichment materials, curriculum maps, and professional development for mathematics teachers.

<http://www.openmiddle.com>

A crowd-sourced collection of challenging problems for Grades K–12. Open middle problems all begin with the same initial problem and end with the same answer, but they include multiple paths for problem solving and require a higher depth of knowledge than most problems that assess procedural and conceptual understanding.

<http://robertkaplinsky.com/lessons>

A collection of free real-world, problem-based lessons for Grades K–12.

<http://www.steweyborney.com>

A collection of ideas and activities for K–8 teachers.

Books

Fennell, F., Kobett, B. M., & Wray, J. A. (2017). *The formative 5: Everyday assessment techniques for every math classroom*. Thousand Oaks, CA: Corwin.

Gojak, L., & Harbin Miles, R. (2015). *The common core mathematics companion: The standards decoded, grades 3–5*. Thousand Oaks, CA: Corwin. [For Common Core states]

Gojak, L., & Harbin Miles, R. (2017). *Your mathematics standards companion: What they mean and how to teach them, grades 3–5*. Thousand Oaks, CA: Corwin. [For Non–Common Core states]

Hattie, J., Fisher, D., Frey, N., Gojak, L. M., Moore, S. D., & Mellman, W. (2016). *Visible learning for mathematics, grades K–12. What works best to optimize student learning*. Thousand Oaks, CA: Corwin.

Hull, T., Harbin Miles, R., & Balka, D. S. (2014). *Realizing rigor in the mathematics classroom*. Thousand Oaks, CA: Corwin.

Huinker, D., & Bill, V. (2017). *Taking action: Implementing effective mathematics teaching practices in K–Grade 5*. Reston, VA: NCTM.

National Council of Teachers of Mathematics. (2014). *Principles to actions: Ensuring mathematical success for all*. Reston, VA: NCTM.

O’Connell, S., & SanGiovanni, J. (2013). *Putting the practices into action: Implementing the common core standards for mathematical practice, K–8*. Portsmouth, NH: Heinemann.

Otto, A., Hancock, S. W., Caldwell, J., & Zbiek, R. M. (2011). *Developing essential understanding of multiplication and division for teaching mathematics in grades 3–5*. Reston, VA: NCTM.

Ray-Reik, M. (2013). *Powerful problem solving: Activities for sense making with the mathematical practices*. Portsmouth, NH: Heinemann.

Schrock, C., Norris, K., Pugalee, D., Seitz, R., & Hollingshead, F. (2013). *NCSM great tasks for mathematics K–5*. Reston, VA: NCTM.

Smith, M. S., & Stein, M. K. (2011). *Five practices for orchestrating productive mathematics discussions*. Reston, VA: National Council of Teachers of Mathematics and Corwin.

Van de Walle, J. A., Karp, K. S., & Bay Williams, J. M. (2016). *Elementary and middle school mathematics: Teaching developmentally* (9th ed.). Upper Saddle River, NJ: Pearson Education.

Van de Walle, J. A., Lovin, L. A. H., Karp, K. S., & Bay-Williams, J. M. (2017). *Teaching student-centered mathematics: Developmentally appropriate instruction for grades 3–5* (3rd ed.). Upper Saddle River, NJ: Pearson Education.