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Mathematics Framework Appendix B: Works Cited

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25 **Chapter 1**

26 Ainsworth, Shaaron, Peter Bibby, and David Wood. 2002. "Examining the Effects of
 27 Different Multiple Representational Systems in Learning Primary Mathematics." *Journal*
 28 *of the Learning Sciences* 11: 25–61.

29 Blackwell, Lisa S, Kali H. Trzesniewski, and Carol S. Dweck. 2007. "Implicit Theories of
 30 Intelligence Predict Achievement Across an Adolescent Transition: A Longitudinal Study
 31 and an Intervention." *Child Development* 78(1): 246–63.

32 Boaler, Jo, Lang Chen, Cathy Williams, and Montserrat Cordero. 2016. "Seeing as
 33 Understanding: The Importance of Visual Mathematics for Our Brain and Learning."
 34 *Journal of Applied & Computational Mathematics* 5(5): 1–6.

35 Boaler, Jo, Jack Dieckmann, Graciela Pérez-Núñez, Kathy Sun, and Cathy Williams.
36 2018. "Changing Students Minds and Achievement in Mathematics: The Impact of a
37 Free Online Student Course." *Frontiers in Education* 3:26.

38 Bransford, John, Ann L. Brown, and Rodney R. Cocking. 2000. *How People Learn* (Vol.
39 11). Washington, DC: National Academy Press.

40 Burdman, Pamela, Kathy Booth, Chris Thorn, Peter R. Bahr, Jon McNaughtan, and
41 Grant Jackson. 2018. "Multiple Paths Forward: Diversifying Mathematics as a Strategy
42 for College Success." WestEd and Just Equations.

43 Burnette, Jeni L., Joseph Billingsley, George C. Banks, Laura E. Knouse, Crystal L.
44 Hoyt, Jeffrey M. Pollack, and Stefanie Simon. 2022. "A Systematic Review and Meta-
45 analysis of Growth Mindset Interventions: For Whom, How, and Why Might Such
46 Interventions Work?" *Psychological Bulletin*.

47 California Department of Education. n.d. *Test Results for California's Assessments*.
48 <https://caaspp-elpac.ets.org/caaspp/>.

49 California Department of Education. 2013. *California Common Core State Standards for*
50 *Mathematics*. Sacramento: California Department of Education.

51 California Education and the Environment Initiative (CEEI). 2020. California's
52 Environmental Principles and Concepts. California Department of Resources Recycling
53 and Recovery. <https://www.californiaeei.org/epc/>.

54 Callahan, Rebecca, Melissa Humphries, and Jenny Buontempo. 2020. "Making
55 Meaning, Doing Math: High School English Learners, Student-led Discussion, and Math
56 Tracking". *International Multilingual Research Journal* 15(1): 82–103.

57 Canning, Elizabeth A., Katherine Muenks, Dorianne J. Green, and Mary C. Murphy.
58 2019. "STEM Faculty Who Believe Ability is Fixed Have Larger Racial Achievement
59 Gaps and Inspire Less Student Motivation in their Classes." *Science Advances* 5(2).

60 CAST. 2018. Universal Design for Learning Guidelines. <http://udlguidelines.cast.org>.

61 Charles, Randall. 2005. "Big Ideas and Understandings as the Foundation for
62 Elementary and Middle School Mathematics," *Journal of Mathematics Education*
63 *Leadership* 7(3): 9–24.

64 Cheng, Peter C.-H. 2000. "Unlocking Conceptual Learning in Mathematics and Science
65 with Effective Representational Systems." *Computers & Education* 33: 109–130.

66 Common Core Standards Writing Team. 2022. Progressions for the Common Core
67 State Standards for Mathematics (February 28, 2023). Tucson, AZ: Institute for
68 Mathematics and Education, University of Arizona. [https://mathematicalmusings.org/wp-](https://mathematicalmusings.org/wp-content/uploads/2023/02/Progressions.pdf)
69 [content/uploads/2023/02/Progressions.pdf](https://mathematicalmusings.org/wp-content/uploads/2023/02/Progressions.pdf).

70 Council of the Great City Schools (CGCS). 2020. *Addressing Unfinished Learning after*
71 *COVID-19 School Closures*.

72 Dana Center, Charles. A. 2019. *What Is Rigor in Mathematics Really?* Austin: University
73 of Texas.

74 Daro, Phil, and Harold Asturias. 2019. *Branching Out: Designing High School Math*
75 *Pathways for Equity*. Just Equations.

76 Deslauriers, Louis, Logan S. McCarty, Kelly Miller, Kristina Callaghan, and Greg Kestin.
77 2019. "Measuring Actual Learning Versus Feeling of Learning in Response to Being
78 Actively Engaged in the Classroom." *Proceedings of the National Academy of Sciences*
79 *of the United States of America* 116(39): 19251–19257.

80 Devlin, Keith. 2003. *Sets, Functions, and Logic: An Introduction to Abstract*
81 *Mathematics*. Boca Raton, FL: Chapman and Hall/CRC Press.

82 Devlin, Keith. 2006. *The Math Instinct: Why You're a Mathematical Genius (Along with*
83 *Lobsters, Birds, Cats, and Dogs)*. New York: Thunder's Mouth Press.

84 Dweck, Carol. 2008. *Mindset: The New Psychology of Success*. New York: Ballantine
85 Books.

- 86 Elia, Iliada, Areti Panaoura, Anastasia Eracleous, and Athanasios Gagatsis. 2007.
87 “Relations Between Secondary Pupils’ Conceptions about Functions and Problem
88 Solving in Different Representations.” *International Journal of Science and Mathematics*
89 *Education* 5: 533–556.
- 90 Feigenson, Lisa, Stanislas Dehaene, and Elizabeth Spelke. 2004. “Core Systems of
91 Number.” *Trends in Cognitive Sciences* 8(7): 307–314.
- 92 Freiman, Victor. 2018. “Complex and Open-ended Tasks to Enrich Mathematical
93 Experiences of Kindergarten Students.” *Mathematical Creativity and Mathematical*
94 *Giftedness: Enhancing Creative Capacities in Mathematically Promising Students*, 373–
95 404. Cham, Switzerland: Springer.
- 96 Gagatsis, Athanasios and Myria Shiakalli. 2004. “Ability to Translate from One
97 Representation of the Concept of Function to Another and Mathematical Problem
98 Solving.” *Educational Psychology* 24: 645–657.
- 99 Getz, Amy, Heather R. Ortiz, Rebecca Hartzler, and Francesca Leahy. 2016. *The Case*
100 *for Mathematics Pathways*. Charles A. Dana Center.
- 101 González, Norma, Luis C. Moll, and Cathy Amanti, Eds. 2006. *Funds of Knowledge:*
102 *Theorizing Practices in Households, Communities, and Classrooms*. New York:
103 Routledge.
- 104 Good, Catherine, Aneeta Rattan, and Carol S. Dweck. 2012. Why do women opt out?
105 Sense of belonging and women’s representation in mathematics. *Journal of Personality*
106 *and Social Psychology*, 102, 700–717.
- 107 Gresalfi, Melissa, Taylor Martin, Victoria Hand, and James Greeno. 2009. “Constructing
108 Competence: An Analysis of Student Participation in the Activity Systems of
109 Mathematics Classrooms.” *Educational Studies in Mathematics* 70(1): 49–70.
- 110 Guha, Roneeta, Tony Wagner, Linda Darling-Hammond, Terri Taylor, and Diane Curtis.
111 2018. *The Promise of Performance Assessments: Innovations in High School Learning*
112 *and College Admission*. Learning Policy Institute. Retrieved from

- 113 <https://learningpolicyinstitute.org/sites/default/files/product->
114 [files/Promise Performance Assessments BRIEF.pdf.](https://learningpolicyinstitute.org/sites/default/files/product-files/Promise_Performance_Assessments_BRIEF.pdf)
- 115 Hammond, Zaretta. 2014. *Culturally Responsive Teaching and the Brain*. Thousand
116 Oaks, CA: Corwin Press.
- 117 Heyman, Gail D. 2008. "Talking about Success: Implications for Achievement
118 Motivation." *Journal of Applied Developmental Psychology* 29(5): 361–370.
- 119 Hyde, D. C. 2011. "Two Systems of Non-symbolic Numerical Cognition." *Frontiers In*
120 *Human Neuroscience* 5, 150.
- 121 Iuculano, Theresa, Miriam Rosenberg-Lee, Jennifer Richardson, Caitlin Tenison, Lynn
122 Fuchs, Kaustubh Supekar, and Vinod Menon. 2015. "Cognitive Tutoring Induces
123 Widespread Neuroplasticity and Remediate Brain Function in Children with
124 Mathematical Learning Disabilities." *Nature Communications* 6(1): 1–10.
- 125 Lambert, Rachel, and Trisha Sugita. 2016. "Increasing Engagement of Students with
126 Learning Disabilities in Mathematical Problem-solving and Discussion." *Support for*
127 *Learning* 31: 347–366.
- 128 Lieberman, Gerald. 2013. *Education and the Environment: Creating Standards-Based*
129 *Programs in Schools and Districts*. Cambridge, MA: Harvard Education Press.
- 130 Martin, Danny B. 2009. "Researching Race in Mathematics Education." *Teachers*
131 *College Record* 11(2): 295–338.
- 132 Moschkovich, Judit. 2013. "Principles and Guidelines for Equitable Mathematics
133 Teaching Practices and Materials for English Language Learners." *Journal of Urban*
134 *Mathematics Education* 6(1): 45–57.
- 135 Moses, Robert, and Charles E. Cobb. 2002. *Radical Equations: Civil Rights from*
136 *Mississippi to the Algebra Project*. Boston: Beacon Press.
- 137 Nasir, Na'ilah Suad. 2002. "Identity, Goals, and Learning: Mathematics in Cultural
138 Practice." *Mathematical Thinking and Learning* 4(2-3): 213–247.

139 National Assessment of Educational Progress. 2022. State Achievement-Level Results.
140 <https://www.nationsreportcard.gov/mathematics/states/achievement/?grade=4>.

141 National Council of Supervisors of Mathematics (NCSM) & TODOS: Mathematics for
142 ALL. 2016. *Mathematics Education Through the Lens of Social Justice: Acknowledgement, Actions, and Accountability*.

144 National Research Council. 2000. *How People Learn: Brain, Mind, Experience, and School: Expanded Edition*. Washington, DC: The National Academies Press.

146 Organization for Economic Co-operation and Development (OECD). 2021. *Mathematics Performance (PISA)*. <https://data.oecd.org/pisa/mathematics-performance-pisa.htm>.

148 Piaget, Jean, and Margaret Cook. 1952. *The Origins of Intelligence in Children* 8(5): 18.
149 New York: International Universities Press.

150 Picard, Emile. 1905. "On the Development of Mathematical Analysis and Its Relation to
151 Certain Other Sciences." *Bulletin of the American Mathematical Society* 11(8): 404–426.

152 Rege, Mari, Paul Hanselman, Ingeborg F. Solli, Carol S. Dweck, Sten Ludvigsen, Eric
153 Bettinger, ... and Davis S. Yeager. 2021. "How Can We Inspire Nations of Learners? An
154 Investigation of Growth Mindset and Challenge-seeking in Two Countries." *American Psychologist* 76(5), 755.

156 Report by State Superintendent of Public Instruction Tom Torlakson's Environmental
157 Literacy Task Force. 2015. *A Blueprint for Environmental Literacy: Educating Every Student In, About, and For the Environment*. Sacramento: Californians Dedicated to
158 Education Foundation.

160 Schifter, Deborah. 2010. "Representation-based Proof in the Elementary Grades." In
161 *Teaching and Learning Proof Across the Grades* (71–86). New York: Routledge.

162 Schmidt, William H., Richard T. Houang, and Leland S. Cogan. 2002. "A Coherent
163 Curriculum: The Case of Mathematics." *The American Educator* 26: 10.

- 164 Sokolowski, H. M., Hawes, Z., & Ansari, D. 2023. "The Neural Correlates of Retrieval
165 and Procedural Strategies in Mental Arithmetic: A Functional Neuroimaging Meta-
166 analysis." *Human Brain Mapping* 44(1), 229–244.
- 167 Stein, Mary, Margaret Smith, Marjorie Henningsen, and Edward Silver. 2000.
168 *Implementing Standards-based Mathematics Instruction: A Casebook for Professional*
169 *Development*, p. 16. New York: Teachers College Press.
- 170 Sun, Kathy Liu. 2019. "The Mindset Disconnect in Mathematics Teaching: A Qualitative
171 Analysis of Classroom Instruction." *The Journal of Mathematical Behavior* 56: 100706.
- 172 Turner, Erin E., and Sylvia Celedón-Pattichis. 2011. "Mathematical Problem Solving
173 Among Latina/o Kindergartners: An Analysis of Opportunities to Learn." *Journal of*
174 *Latinos and Education* 10(2): 146–169.
- 175 Vogel, S. E., & De Smedt, B. 2021. "Developmental Brain Dynamics of Numerical and
176 Arithmetic Abilities." *npj Science of Learning* 6(1), 22.
- 177 Walton, Gregory M., and David S. Yeager. 2020. "Seed and Soil: Psychological
178 Affordances in Contexts Help to Explain Where Wise Interventions Succeed or Fail."
179 *Current Directions in Psychological Science*, 29(3): 219–226.
- 180 Williams, Talithia. 2018. *Power in Numbers: The Rebel Women of Mathematics*. New
181 York: Race Point Publishing.
- 182 Yeager, David S., Paul Hanselman, Gregory M. Walton, Jared S. Murray, Robert
183 Crosnoe, Chandra Muller, Elizabeth Tipton, Barbara Schneider, Chris S. Hulleman,
184 Cintia P. Hinojosa, David Paunesku, Carissa Romer, Kate Flint, Alice Roberts, Jill Trott,
185 Ronaldo Iachan, Jenny Buontempo, Sophia Man Yang, Carlos M. Carvalho, P. Richard
186 Hahn, Maithreyi Gopalan, Pratik Mhatre, Ronald Ferguson, Angela L. Duckworth, Carol
187 S. Dweck. 2019. "A National Experiment Reveals Where a Growth Mindset Improves
188 Achievement." *Nature*, 573(7774): 364–369.
- 189 Yeager, David S., Carroll, Jamie M., Buontempo, Jenny, Cimpian, Andrei, Woody,
190 Spencer, Crosnoe, Robert, ... and Dweck, Carol S. 2022. "Teacher Mindsets Help

191 Explain Where a Growth-mindset Intervention Does and Doesn't Work." *Psychological*
192 *Science* 33(1), 18–32.

193 **Chapter 2**

194 Aguirre, Julia M. 2012 Developing Culturally Responsive Mathematics Teaching. Fall
195 2012 TODOS Newsletter TODOS- Mathematics For All. <http://www.todos-math.org>.

196 Baxter, Juliet A., John Woodward, and Deborah Olson. 2005. "Writing in Mathematics:
197 An Alternative Form of Communication for Academically Low-achieving Students."
198 *Learning Disabilities Research and Practice* 20(2): 119–135.

199 Bieda, Kristen N. & Megan Staples. 2020. "Justification as an Equity Practice."
200 *Mathematics Teacher: Learning and Teaching PK-12* 113(2): 102–108.

201 Berry, Robert, Basil Conway, Brian Lawler, and John Staley. 2020. *Mathematics*
202 *Lessons to Explore, Understand, and Respond to Social Justice*. Corwin Mathematics
203 Series. Thousand Oaks, CA: Corwin Press.

204 Bishop, Jessica Pierson. 2012. "'She's Always Been the Smart One. I've Always Been
205 the Dumb One': Identities in the Mathematics Classroom." *Journal for Research in*
206 *Mathematics Education* 43(1): 34–74.

207 Boaler, Jo, and James G. Greeno. 2000. "Identity, Agency, and Knowing in
208 Mathematics Worlds." In *Multiple Perspectives on Mathematics Teaching and Learning*,
209 Boaler, Jo (ed.). Westport, CT: Praeger Publishers.

210 Boaler, Jo, and Megan Staples. 2008. "Creating Mathematical Futures Through an
211 Equitable Teaching Approach: The Case of Railside School." *Teachers College Record*
212 110(3): 608–645.

213 Boaler, Jo, Lang Chen, Cathy Williams, and Montserrat Cordero. 2016. "Seeing as
214 Understanding: The Importance of Visual Mathematics for our Brain and Learning."
215 *Journal of Applied and Computational Mathematics* 5(5).

216 Boaler, Jo. 2016. *Mathematical Mindsets: Unleashing Students' Potential through*
217 *Creative Math, Inspiring Messages and Innovative Teaching*. Chappaqua, NY: Jossey-
218 Bass/Wiley.

219 Boykin, A. Wade and Pedro Noguera. 2011. *Creating the Opportunity to Learn: Moving*
220 *from Research to Practice to Close the Achievement Gap*. Alexandria, VA: ASCD.

221 Brady, Shannon T., Geoffrey L. Cohen, Shoshana N. Jarvis, and Gregory M. Walton.
222 2020. "A Brief Social-belonging Intervention in College Improves Adult Outcomes for
223 Black Americans." *Science Advances* 6(18).

224 Bransford, John, Nancy Vye, Reed Stevens, Pat Kuhl, Dan Schwartz, Philip Bell, Andy
225 Meltzoff, Brigid Barron, Roy Pea, Byron Reeves, Jeremy Roschelle, and Nora Sabelli.
226 2005. "Learning Theories and Education: Toward a Decade of Synergy." In P.
227 Alexander and P. Winne (Eds.), *Handbook of Educational Psychology* (2nd ed., 209–
228 244). Mahwah, NH: Erlbaum.

229 Bright, Anita. 2016. "Education for Whom? Word Problems as Carriers of Cultural
230 Values." *Taboo: The Journal of Culture and Education* 15(1).

231 Cabana, Carlos, Barbara Shreve, and Estelle Woodbury. 2014. "Working Toward an
232 Equity Pedagogy." In Na'ilah Nasir, Carlos Cabana, Barbara Shreve, Estelle Woodbury,
233 and Nicole N. Louie (Eds.) *Mathematics for Equity: A Framework for Successful*
234 *Practice*. New York: Teachers College Press.

235 California Department of Education. n.d.a. *Test Results for California's Assessments*.
236 <https://caaspp-elpac.ets.org/caaspp/>.

237 California Department of Education. 2012. *California English Language Development*
238 *Standards Kindergarten Through Grade 12*.
239 <https://www.cde.ca.gov/sp/el/er/documents/eldstndpublication14.pdf>.

240 California Department of Education. n.d.b. *2021-22 Four-Year Adjusted Cohort*
241 *Graduation Rate*.

242 <https://dq.cde.ca.gov/dataquest/dqcensus/CohRate.aspx?cds=00&agglevel=state&year>
243 [=2021-22.](https://dq.cde.ca.gov/dataquest/dqcensus/CohRate.aspx?cds=00&agglevel=state&year)

244 California Department of Education. 2021a. California Common Core State Standards
245 and California English Language Development Standards Resources.
246 <https://www.cde.ca.gov/re/cc/eldresources.asp>.

247 California Department of Education. 2021b. *Asset-Based Pedagogies*.
248 <https://www.cde.ca.gov/pd/ee/assetbasedpedagogies.asp>.

249 California Department of Education. 2021c. *Digital Learning Integration and Standards*
250 *Guidance*. <https://www.cde.ca.gov/ci/cr/dl/dlintergstdsguidance.asp>.

251 California Education Learning Lab. 2019. *Enrollment and Completion Gaps in STEM*
252 *Higher Education*. [https://calearninglab.org/wp-content/uploads/2021/02/20190916-](https://calearninglab.org/wp-content/uploads/2021/02/20190916-Learning_Lab_Brief-Enrollment_and_Completion_Gaps.pdf)
253 [Learning_Lab_Brief-Enrollment and Completion Gaps.pdf](https://calearninglab.org/wp-content/uploads/2021/02/20190916-Learning_Lab_Brief-Enrollment_and_Completion_Gaps.pdf)

254 CAST (2018). Universal Design for Learning Guidelines version.
255 <https://udlguidelines.cast.org>.

256 Carpenter, T.P., Fennema, E.H., Franke, M. L., Levi, L., and Empson, S B. 2014.
257 *Children’s Mathematics: Cognitively Guided Instruction*. Portsmouth, NH: Heinemann.

258 Carter, Prudence L., and Kevin G. Welner. 2013. *Closing the Opportunity Gap: What*
259 *American Must Do to Give Every Child an Even Chance*. Cambridge: Oxford University
260 Press.

261 Chao, Theodore, and DeAndrea Jones. 2016. “That’s Not Fair and Why: Developing
262 Social Justice Activists in Pre-K.” In Aguirre, Julia M., and Marta Civil (Eds.) *Teaching*
263 *Excellence and Equity in Mathematics: Special Issue, Mathematics Education: Through*
264 *the Lens of Social Justice* 7(1) 15–21.

265 Chapin, Suzanne H., Catherine O'Connor, and Nancy C. Anderson. 2013. *Classroom*
266 *Discussions: Using Math Talk to Help Students Learn, Grades K–6*. Boston: Math
267 Solutions.

268 Chapin, Suzanne H., Catherine O'Connor, and Nancy Canavan Anderson. 2013. *Talk*
269 *Moves: A Teacher's Guide for Using Classroom Discussions in Math, 3rd Edition.*
270 Chicago, IL: Math Solutions.

271 Cirillo, Michelle and Jennifer M. Langer-Osuna. 2018. "Using Classroom Discourse as a
272 Tool for Formative Assessment." In Edward A. Silver and Valerie L. Mills, Eds., *A Fresh*
273 *Look at Formative Assessment in Mathematics Teaching.* Reston, VA: National Council
274 of Teachers of Mathematics.

275 Clements, Douglas H. and Julie Sarama. 2014. *Learning and Teaching Early Math: The*
276 *Learning Trajectories Approach (2nd ed.).* New York, NY: Routledge.

277 Cohen, Elizabeth G., and Rachel A. Lotan. 1997. *Working for Equity in Heterogeneous*
278 *Classrooms: Sociological Theory in Practice.* Sociology of Education Series. New York:
279 Teachers College Press.

280 Conger, Dylan, Mark C. Long, and Patrice Iatarola. 2009. "Explaining Race, Poverty,
281 and Gender Disparities in Advanced Course-taking." *Journal of Policy Analysis and*
282 *Management, 28(4): 555–576.*

283 Darling, Felicia. 2019. *Teachin' It!: Breakout Moves that Break Down Barriers for*
284 *Community College Students.* New York: Teachers College Press.

285 Darragh, Lisa. 2015. "Recognising 'Good at Mathematics': Using a Performative Lens
286 for Identity." *Mathematics Education Research Journal, 27(1): 83–102.*

287 Demi. 1997. *One Grain of Rice: A Mathematical Folktale.* New York: Scholastic Press.

288 Deslauriers, Louis, Logan S. McCarty, Kelly Miller, Kristina Callaghan, and Greg Kestin.
289 2019. "Measuring Actual Learning Versus Feeling of Learning in Response to Being
290 Actively Engaged in the Classroom." *Proceedings of the National Academy of Sciences*
291 *116(39): 19251–19257.*

292 Duckworth, Eleanor. 2006. *The Having of Wonderful Ideas and Other Essays on*
293 *Teaching and Learning.* New York: Teachers College Press.

294 The Education Trust. 2018. *Checking In: Are Math Assignments Measuring Up?*
295 Washington, DC: The Education Trust. Available at: [https://edtrust.org/wp-](https://edtrust.org/wp-content/uploads/2014/09/CheckingIn_MATH-ANALYSIS_FINAL_5.pdf)
296 [content/uploads/2014/09/CheckingIn_MATH-ANALYSIS_FINAL_5.pdf](https://edtrust.org/wp-content/uploads/2014/09/CheckingIn_MATH-ANALYSIS_FINAL_5.pdf)

297 Esmonde, Indigo, and Beverly Caswell. 2010. "Teaching Mathematics for Social Justice
298 in Multicultural, Multilingual Elementary Classrooms." *Canadian Journal of Science,*
299 *Mathematics and Technology Education* 10(3): 244–254.

300 Esmonde, Indigo, and Jennifer M. Langer-Osuna. 2011. "Power in Numbers: Student
301 Participation in Mathematical Discussions in Heterogeneous Spaces." *Journal for*
302 *Research in Mathematics Education*: 44 (1): 288–315.

303 Franklin, Christine, and Bargagliotti, Anna. 2020. "Introducing GAISE II: A Guideline for
304 Precollege Statistics and Data Science Education." *Harvard Data Science Review* 2(4).

305 Featherstone, Helen, Sandra Crespo, Lisa Jilk, Joy Oslund, Amy Parks, and Marcy
306 Wood. 2011. *Smarter Together! Collaboration and Equity in the Elementary Math*
307 *Classroom*. Reston, VA: National Council of Teachers of Mathematics.

308 Foote, Mary Q., and Rachel Lambert. 2011. "I Have a Solution to Share: Learning
309 Through Equitable Engagement in a Mathematics Classroom." *Canadian Journal of*
310 *Science, Mathematics and Technology Education* 11(3): 247–260.

311 Freeman, Scott, Sarah L. Eddy, Miles McDonough, Michelle K. Smith, Nnadozie
312 Okoroafor, Hannah Jordt, and Mary Pat Wenderoth. 2014. "Active Learning Increases
313 Student Performance in Science, Engineering, and Mathematics." *Proceedings of the*
314 *National Academy of Sciences* 111(23): 8410–8415.

315 Goffney, Imani, Rochelle Gutiérrez, and Boston. Melissa. 2018. *Annual Perspectives in*
316 *Mathematics Education: Rehumanizing Mathematics for Black, Indigenous and Latinx*
317 *Students*. Reston, VA: National Council of Teachers of Mathematics.

318 González, Norma, Luis C. Moll, and Cathy Amanti, Eds. 2006. *Funds of Knowledge:*
319 *Theorizing Practices in Households, Communities, and Classrooms*. New York:
320 Routledge.

- 321 Goodman, Joshua. 2019. "The Labor of Division: Returns to Compulsory High School
322 Math Coursework." *Journal of Labor Economics*, 37(4): 1141–1182.
- 323 Gutiérrez, Rochelle. 2009. "Framing Equity: Helping Students 'Play the Game' and
324 'Change the Game.'" *Teaching for Excellence and Equity in Mathematics* 1(1): 4–8.
- 325 Gutiérrez, Rochelle. 2013. "The Sociopolitical Turn in Mathematics Education." *Journal*
326 *for Research in Mathematics Education* 44(1), 37–68.
- 327 Gutiérrez, Rochelle. 2018. "The Need to Rehumanize Mathematics." In I. Goffney, R.
328 Gutiérrez, and M. Boston. *Annual Perspectives in Mathematics Education:*
329 *Rehumanizing Mathematics for Black, Indigenous and Latinx Students*. Reston, VA:
330 National Council of Teachers of Mathematics.
- 331 Gutstein, Eric. 2003. "Teaching and Learning Mathematics for Social Justice in an
332 Urban Latino School." *Journal for Research in Mathematics Education* 34(1): 37–73.
- 333 Gutstein, Eric. 2006. *Reading and Writing the World with Mathematics: Toward a*
334 *Pedagogy for Social Justice*. New York: Routledge.
- 335 Gutstein, Eric, and Bob Peterson. 2005. *Rethinking Mathematics: Teaching Social*
336 *Justice by the Numbers*. Milwaukee, WI: Rethinking Schools.
- 337 Hand, Victoria M. 2014. "'Taking Up Our Space': Becoming Competent Learners in
338 Mathematics Classrooms." In Na'ilah Nasir, Carlos Cabana, Barbara Shreve, Estelle
339 Woodbury, and Nicole Louie (Eds.) *Mathematics for Equity: A Framework for*
340 *Successful Practice*. New York: Teachers College Press.
- 341 Hammond, Zaretta L. 2020. *Culturally Responsive Teaching and The Brain: Promoting*
342 *Authentic Engagement and Rigor Among Culturally and Linguistically Diverse Students*.
343 Thousand Oaks, CA: Corwin Press.
- 344 Hammond, Zaretta. 2021. *Zaretta Hammond on Equity and Student Engagement*.
345 <https://www.ascd.org/el/articles/zaretta-hammond-on-equity-and-student-engagement>.

346 Hanushek, Eric A., Paul E. Peterson, Laura M. Talpey, and Ludger Woessmann. 2019.
347 *The Unwavering SES Achievement Gap: Trends in US Student Performance (No.*
348 *w25648)*. National Bureau of Economic Research.

349 Hiebert, J., & Wearne, D. 1993. "Instructional tasks, Classroom Discourse, and
350 Students' Learning in Second-grade Arithmetic." *American Educational Research*
351 *Journal* 30(2), 393–425.

352 Joseph, Nicole M., Meseret Hailu, and Denise Boston. 2017. "Black Women's and Girls'
353 Persistence in the P–20 Mathematics Pipeline: Two Decades of Children, Youth, and
354 Adult Education Research." *Review of Research in Education* 41(1): 203–227.

355 Kokka, Kari. 2019. "Healing-informed Social Justice Mathematics: Promoting Students'
356 Sociopolitical Consciousness and Well-being in Mathematics Class." *Urban Education*
357 54(9): 1179–1209.

358 Krainer, Konrad. 1993. "Powerful Tasks: A Contribution to a High Level of Acting and
359 Reflecting in Mathematics Instruction." *Educational Studies in Mathematics* 24(1): 65–
360 93.

361 Krause, Marina. 2000. *Multicultural Mathematics Materials*. Reston, VA: National
362 Council of Teachers of Mathematics.

363 Ladson-Billings, Gloria. 2009. *The Dream-Keepers. Successful Teachers of African-*
364 *American Children*. San Francisco: Jossey-Bass.

365 Lagunoff, Rachel, Pamela Spycher, Robert Liguanti, Cathy Carroll, and Kathy
366 DiRanna. 2015. *Integrating the CA ELD Standards into K–12 Mathematics and Science*
367 *Teaching and Learning*. WestEd.org.

368 LaMar, Tanya, Miriam Leshin, and Jo Boaler. 2020. "The Derailing Impact of Content
369 Standards—an Equity Focused District Held Back by Narrow Mathematics." *International*
370 *Journal of Educational Research Open* 1(2020): 100015.

371 Lambert, Rachel. 2020. *Increasing Access to Universally Designed Mathematics*
372 *Classrooms*. Stanford, CA: PACE.

- 373 Lambert, Rachel, and Trisha Sugita. 2016. "Increasing Engagement of Students with
374 Learning Disabilities in Mathematical Problem-solving and Discussion." *Support for*
375 *Learning* 31: 347–366.
- 376 Langer-Osuna, Jennifer. M. 2011. "How Brianna Became Bossy and Kofi Came Out
377 Smart: Understanding the Trajectories of Identity and Engagement for Two Group
378 Leaders in a Project Based Mathematics Classroom." *Canadian Journal of Science,*
379 *Mathematics and Technology Education* 11(3): 207–225.
- 380 Langer-Osuna, Jennifer M. 2014. "From Getting 'Fired' to Becoming a Collaborator: A
381 Case of the Co-construction of Identity and Engagement in a Project-based
382 Mathematics Classroom." *Journal of the Learning Sciences* 24(1): 53–92.
- 383 Langer-Osuna, Jennifer M., and Indigo Esmonde. 2017. "Identity in Research on
384 Mathematics Education." *Compendium for Research in Mathematics Education*, 637–
385 648.
- 386 Langer-Osuna, Jennifer, Jen Munson, Emma Gargroetzi, Immanuel Williams, and Rosa
387 Chavez. 2020. "'So, What Are We Working On?': Examining Shifts in Student Authority
388 Relations During Collaborative Mathematics Activity in a Fourth Grade Classroom."
389 *Educational Studies in Mathematics* 104(2).
- 390 Larnell, Gregory V., Erika C. Bullock, and Christopher C. Jett. 2016. "Rethinking
391 Teaching and Learning Mathematics for Social Justice From a Critical Race
392 Perspective." *Journal of Education* 196(1): 19–29.
- 393 Lawrence, Jacob, and Walter Myers. 1995. *The Great Migration: An American Story*.
394 New York: Harper Collins.
- 395 Lee, Carol D. 2001. "Is October Brown Chinese? A Cultural Modeling Activity System
396 for Underachieving Students." *American Educational Research Journal* 38(1): 97–141.
- 397 Leonard, Jacqueline, Cara M. Moore, and Wanda Brooks. 2013. "Multicultural
398 Children's Literature as a Context for Teaching Mathematics for Cultural Relevance in
399 Urban Schools." *Urban Review* 46(3): 325–348.

400 Lerman, Stephen. 2000. "The Social Turn in Mathematics Education Research."
401 *Multiple Perspectives on Mathematics Teaching and Learning* 1: 19–44. Westport, CT:
402 Ablex Pub.

403 Long, Mark C., Dylan Conger, and Patrice Iatarola. 2012. "Effects of High School
404 Course-taking on Secondary and Postsecondary Success." *American Educational*
405 *Research Journal* 49 (2): 285–322.

406 Louie, Nicole L. 2017. "The Culture of Exclusion in Mathematics Education and its
407 Persistence in Equity-oriented Teaching." *Journal for Research in Mathematics*
408 *Education* 48(5): 488–519.

409 Maaman, Martina, Siti Mistima Maat, and Zanaton H. Iksan. 2022. "The Influence of
410 Student Engagement on Mathematical Achievement Among Secondary School
411 Students," *Mathematics*, 10(1), 41.

412 Mathematics Assessment Project. n.d. *Welcome to the Mathematics Assessment*
413 *Project*. <https://www.map.mathshell.org/index.php>.

414 Mendez, Phil, and Carole Byard. 1989. *The Black Snowman*. New York: Scholastic.

415 Milner, H. Richard, and Judson C. Laughter. 2015. "But Good Intentions Are Not
416 Enough: Preparing Teachers to Center Race and Poverty." *The Urban Review* 47(2):
417 341–363.

418 Mlodinow, Leonard. 2018. *Elastic: Flexible Thinking in a Time of Change*. New York:
419 Pantheon Books.

420 Moll, Luis C., Cathy Amanti, Deborah Neff, and Norma Gonzalez. 1992. "Funds of
421 Knowledge for Teaching: Using a Qualitative Approach to Connect Homes and
422 Classrooms." *Theory Into Practice* 31(2): 132–141.

423 Möller, Jens, Steffen Zitzmann, Friederike Helm, Nils Machts, and Fabian Wolff. 2020.
424 "A Meta-analysis of Relations between Achievement and Self-concept." *Review of*
425 *Educational Research*, 90(3): 376–419.

- 426 Moschkovich, Judit. 1999. "Supporting the participation of English language learners in
427 mathematical discussions." *For the Learning of Mathematics* 19(1): 11–19.
- 428 Moschkovich, Judit. 2009. "Using Two Languages When Learning Mathematics."
429 *Educational Studies in Mathematics* 64 (2): 121–144.
- 430 Moschkovich, Judit. 2013. "Principles and Guidelines for Equitable Mathematics
431 Teaching Practices and Materials for English Language Learners." *Journal of Urban*
432 *Mathematics Education* 6(1): 45–47.
- 433 Moschkovich, Judit. 2014. "Building on Student Language Resources During Classroom
434 Discussions." In M. Civil and E. Turner (Eds.) *The Common Core State Standards in*
435 *Mathematics for English Language Learners: Grades K–8*. Alexandria, VA: TESOL
436 International Association.
- 437 Moses, Robert P., and Charles E. Cobb. 2001. *Radical Equations: Math Literacy and*
438 *Civil Rights*. Boston: Beacon Press.
- 439 Muñoz, Jenny. 2019. *Culturally Responsive Teaching: A 50-State Survey of Teaching*
440 *Standards*. Published by Education Policy. Retrieved from
441 <https://newamerica.org/education-policy/reports/culturally-responsive-teaching/>.
- 442 Munson, Jen. 2018. *In the Moment: Conferring in the Elementary Math Classroom*.
443 Portsmouth, NH: Heinemann.
- 444 National Academies of Sciences, Engineering, and Medicine (NASEM). 2018. *How*
445 *People Learn II: Learners, Contexts, and Cultures*. Washington, DC: The National
446 Academies Press.
- 447 National Research Council 2000. *How People Learn: Brain, Mind, Experience, and*
448 *School: Expanded Edition*. Washington, DC: The National Academies Press.
- 449 National Research Council. 2001. *Adding It Up: Helping Children Learn Mathematics*.
450 Washington, DC: National Academies Press.

451 Nasir, Na'ilah Suad, Ann S. Rosebery, Beth Warren, and Carol D. Lee. 2014. "Learning
452 as a Cultural Process: Achieving Equity Through Diversity." In R. K. Sawyer (Ed.),
453 *Cambridge Handbook of the Learning Sciences* (2nd ed., 686–706). Cambridge
454 University Press.

455 National Council of Teachers of Mathematics (NCTM). 2014a. *Access and Equity in*
456 *Mathematics Education*.
457 https://www.nctm.org/uploadedFiles/Standards_and_Positions/Position_Statements/Access_and_Equity.pdf.
458

459 NCTM. 2014b. *Principles to Actions: Ensuring Mathematical Success for All*.

460 NCTM. 2020. *Catalyzing Change in High School Mathematics: Initiating Critical*
461 *Conversations*. Reston, VA: National Council of Teachers of Mathematics.

462 NCTM Research Committee. 2018. "Asset-based Approaches to Equitable Math
463 Education Research and Practice." *Journal for Research in Mathematics Education*,
464 49(4), 373–389.

465 Oakes, Jeannie. 1999. "Limiting Students' School Success and Life Chances: The
466 Impact of Tracking." In A. C. Ornstein, L. S. Behar-Horenstein, and E. F. Pajak (Eds.),
467 *Contemporary Issues in Curriculum* (2nd ed., pp. 224–237). Allyn & Bacon.

468 Organisation for Economic Co-operation and Development. 2014. "PISA 2012 Results
469 in Focus: What 15-year-olds Know and What They Can Do with What They Know."
470 Retrieved from <https://www.oecd.org/pisa/keyfindings/pisa-2012-results-overview.pdf>.

471 Parks, Amy Noelle. 2015. *Exploring Mathematics Through Play in the Early Childhood*
472 *Classroom*. Early Childhood Education Series. New York: Teachers College Press.

473 Perez, L. King. 2002. *First Day in Grapes*. New York: Lee & Low Books.

474 Plumb, Amy, Carla M. Roberts-Caudle, Frances K. Harper, and Durrell A. Jones. 2017.
475 "Flint, Michigan, Water Crisis: Connecting to Local Issues in Mathematics Classrooms."
476 *Teaching Children Mathematics* 23(9): 518-520.

477 Reardon, Sean, Chris Doss, Josh Gagné, Rebecca Gleit, Angela Johnson, and Victoria
478 Sosina. 2018. "A Portrait of Educational Outcomes in California." *Getting Down to Facts*
479 *II*.

480 Reardon, Sean F. 2019. "Educational Opportunity in Early and Middle Childhood: Using
481 Full Population Administrative Data to Study Variation by Place and Age." *RSF: The*
482 *Russell Sage Foundation Journal of the Social Science* 5(2): 40–68.

483 Rivas-Drake, Deborah, Eleanor K. Seaton, Carol Markstrom, Stephen Quintana, Moin
484 Syed, Richard M. Lee, Seth J. Schwartz, Adriana J. Umaña-Taylor, Sabine French,
485 Tiffany Yip. Ethnic and Racial Identity in the 21st Century Study Group. 2014. "Ethnic
486 and Racial Identity in Adolescence: Implications for Psychosocial, Academic, and
487 Health Outcomes." *Child Development* 85(1): 40–57.

488 Rogoff, Barbara. 2003. *The Cultural Nature of Human Development*. Oxford University
489 Press.

490 Schoenfeld, Alan H. 2002. "Making Mathematics Work for All Children: Issues of
491 Standards, Testing, and Equity." *Educational Researcher* 31(1):13–25.

492 Schwartz, Daniel, and John Bransford. 1998. "A Time for Telling." *Cognition and*
493 *Instruction* 16(4): 475–522.

494 Shah, Niral. 2017. "Race, Ideology, and Academic Ability: A Relational Analysis of
495 Racial Narratives in Mathematics." *Teachers College Record* 119 (070304).

496 Simpson, Amber, Stefani Mokalled, Lou Ann Ellenburg, and S. Megan Che. 2014. "A
497 Tool for Rethinking Teachers' Questioning." *Mathematics Teaching in the Middle School*
498 20(5): 294–302.

499 Stein, Margaret K., and Suzanne Lane. 1996. Instructional Tasks and the Development
500 of Student Capacity to Think and Reason: An Analysis of the Relationship between
501 Teaching and Learning in a Reform Mathematics Project. *Educational Research and*
502 *Evaluation* 2:1, 50–80.

503 Stein, Mary, Margaret Smith, Marjorie Henningsen, and Edward Silver. 2000.
504 *Implementing Standards-based Mathematics Instruction: A Casebook for Professional*
505 *Development*, p. 16. New York: Teachers College Press.

506 Smith, Margaret S., and Mary Kay Stein. 2018. *5 Practices for Orchestrating Productive*
507 *Mathematics Discussions, 2nd edition*. Reston, VA: National Council of Teachers of
508 Mathematics.

509 Su, Francis. 2020. *Mathematics for Human Flourishing*. New Haven: Yale University
510 Press.

511 Sullivan, Peter. 2002. *Good Questions for Math Teaching*. Boston: Math Solutions.

512 The Teaching Maths for Social Justice Network (TMSJN). n.d.
513 <https://mathsocialjustice.org/>.

514 Thanheiser, Eva, and Amanda Sugimoto. 2022. “Justification in the Context of
515 Elementary Grades: Justification to Develop and Provide Access to Mathematical
516 Reasoning.” In Kristen N. Bieda, AnnaMarie Conner, Karl W. Kosko, and Megan
517 Staples (Eds.), *Conceptions and Consequences of Mathematical Argumentation,*
518 *Justification, and Proof*: pp. 35–48. New York: Springer.

519 TNTP. 2018. “The Opportunity Myth: What Students Can Show Us About How School Is
520 Letting Them Down—and How to Fix It.” [https://tntp.org/assets/documents/TNTP_The-](https://tntp.org/assets/documents/TNTP_The-Opportunity-Myth_Web.pdf)
521 [Opportunity-Myth_Web.pdf](https://tntp.org/assets/documents/TNTP_The-Opportunity-Myth_Web.pdf).

522 TODOS. n.d. *TODOS: Mathematics for ALL: Excellence and Equity in Mathematics*.
523 https://www.todos-math.org/assets/documents/TEEM/teem7_final1.pdf.

524 TRU Framework. 2018. Teaching for Robust Understanding. <https://truframework.org/>.

525 Turner, Erin E., and Sylvia Celedón-Pattichis. 2011. “Mathematical Problem Solving
526 Among Latina/o Kindergartners: An Analysis of Opportunities to Learn.” *Journal of*
527 *Latinos and Education* 10(2): 146–169.

- 528 Turner, Erin, Higinio Dominguez, Luz Maldonado, and Susan Empson. 2013. "English
529 Learners' Participation in Mathematical Discussion: Shifting Positionings and Dynamic
530 Identities." *Journal for Research in Mathematics Education* 44(1), Equity Special Issue:
531 199–234.
- 532 Wager, Anita. 2013. "Practices that Support Mathematics Learning in a Play-Based
533 Classroom." In: English, Lyn D., and Joanne T. Mulligan (eds). *Reconceptualizing Early*
534 *Mathematics Learning*. Advances in Mathematics Education. Dordrecht: Springer.
- 535 Walton, Gregory, Geoffrey L. Cohen, David Cwir, Steven J. Spencer. 2012. "Mere
536 Belonging: The Power of Social Connections." *Journal of Personality and Social*
537 *Psychology* 102(3): 513–532.
- 538 Wilson, Alison, and Angela Urick. 2021. "Cultural Reproduction Theory and Schooling:
539 The Relationship Between Student Capital and Opportunity to Learn." *American Journal*
540 *of Education* 127: 193–232.
- 541 Wolfram, Conrad. 2020. *The Math(s) Fix: An Education Blueprint for the AI Age*.
542 Champaign, IL: Wolfram Media Inc.
- 543 Wong, Ngai-Ying, Chi-Chung Lam, and Qi-Ping Kong. 2003. "The Relationship Between
544 Student Engagement and Learning Outcome in Mathematics." *Curriculum and Teaching*
545 18(1): 81-95.
- 546 Xenofontos, Constantinos. 2019. *Equity in Mathematics Education: Addressing a*
547 *Changing World*. Information Age Publishing.
- 548 Xenofontos, Constantinos, Sally Fraser, Andrea Priestley, and Mark Priestley, M. 2021.
549 "Mathematics Teachers and Social Justice: A Systematic Review of Empirical Studies."
550 *Oxford Review of Education* 47(2): 135–151.
- 551 Yeh, Cathery, and Brande M. Otis. 2019. "Mathematics for Whom: Reframing and
552 Humanizing Mathematics." Occasional Paper Series 41. Retrieved from
553 <https://educate.bankstreet.edu/occasional-paper-series/vol2019/iss41/8/>.
- 554 Youcubed. n.d. *The Four 4s*. <https://www.youcubed.org/tasks/the-four-4s/>.

555 **Chapter 3**

- 556 Boaler, Jo, Jen Munson, and Cathy Williams. 2018. What is Mathematical Beauty?
557 Teaching through Big Ideas and Connections. Youcubed.
- 558 Boaler, Jo. 2016. *Mathematical Mindsets: Unleashing Students' Potential through*
559 *Creative Math, Inspiring Messages and Innovative Teaching*. Chappaqua, NY: Jossey-
560 Bass/Wiley.
- 561 California Department of Education. 2015a. *Mathematics Framework for California*
562 *Public Schools: Kindergarten Through Grade Twelve*. California Department of
563 Education, Sacramento. Retrieved from
564 <https://www.cde.ca.gov/ci/ma/cf/documents/transitionalkinder.pdf>.
- 565 California Department of Education. 2015b. *Glossary: Mathematical Terms, Tables, and*
566 *Illustrations of the Mathematics Framework for California Public Schools: Kindergarten*
567 *Through Grade Twelve*.
568 <https://www.cde.ca.gov/ci/ma/cf/documents/mathfwglossary.pdf>.
- 569 California Department of Education. 2017. *History–Social Science Framework*.
570 <https://www.cde.ca.gov/ci/hs/cf/hssframework.asp>.
- 571 California Council on Economic Education. n.d. *Meet \$martpath* <https://ccee.org/>.
- 572 Carbonneau, Kira J., Scott C. Marley, and James P. Selig. 2013. "A Meta-analysis of
573 the Efficacy of Teaching Mathematics with Concrete Manipulatives." *Journal of*
574 *Educational Psychology* 105(2): 380–400.
- 575 Cardone, Tina and MTBoS. 2015. Nix the Tricks. Retrieved from:
576 <https://nixthetricks.com>.
- 577 Carroll, William M. 1997. Mental and written computation: Abilities of students in a
578 reform-based curriculum. *The Mathematics Educator*, 2(1), 18-32.
- 579 Carroll, William and Andrew Isaacs. 2020. Achievement of students using the University
580 of Chicago School Mathematics Project's Everyday Mathematics. In Sharon Senk and

581 Denisse Thompson, *Student outcomes in Standards-oriented school mathematics*
582 *curriculum projects*. Hillsdale, NJ: Erlbaum.

583 Common Core Standards Writing Team. 2022. Progressions for the Common Core
584 State Standards for Mathematics (February 28, 2023). Tucson, AZ: Institute for
585 Mathematics and Education, University of Arizona. [https://mathematicalmusings.org/wp-](https://mathematicalmusings.org/wp-content/uploads/2023/02/Progressions.pdf)
586 [content/uploads/2023/02/Progressions.pdf](https://mathematicalmusings.org/wp-content/uploads/2023/02/Progressions.pdf).

587 Council for Economic Education. n.d. *National Standards for Financial Literacy*.
588 [https://www.councilforeconed.org/wp-content/uploads/2013/02/national-standards-for-](https://www.councilforeconed.org/wp-content/uploads/2013/02/national-standards-for-financial-literacy.pdf)
589 [financial-literacy.pdf](https://www.councilforeconed.org/wp-content/uploads/2013/02/national-standards-for-financial-literacy.pdf).

590 Daro, Phil. 2014. “Against ‘Answer-Getting’”. [Video]. Strategic Education Research
591 Partnership. <https://serpmedia.org/daro-talks/>.

592 Franke, Megan L., Kazemi, Elham, Turrou, Angela Chan. 2018. *Choral Counting and*
593 *Counting Collections*. Portsmouth, NH: Stenhouse Publishers.

594 Feikes, David, and Keith Schwingendorf. 2008. “The Importance of Compression in
595 Children’s Learning of Mathematics and Teacher’s Learning to Teach Mathematics.”
596 *Mediterranean Journal for Research in Mathematics Education* 7(2).

597 Financial Industry Regulatory Authority (FINRA). 2019. National Study by FINRA
598 Foundation Finds Financial Prosperity Eludes Many Americans Despite Strong
599 Economy.

600 Gfletchy. n.d. Progression videos. <https://gfletchy.com/progression-videos/>.

601 Grawe, Nathan D. 2011. “Beyond Math Skills: Measuring Quantitative Reasoning in
602 Context.” *New Directions for Institutional Research* 149: 41–52.

603 Illustrative Mathematics. n.d.a. *Grade 4-Operations and Algebraic Thinking*.
604 <http://tasks.illustrativemathematics.org/content-standards/4/OA>.

605 Illustrative Mathematics. n.d.b. *Grade 4-Rounding to the Nearest 100 and 1000*.
606 <http://tasks.illustrativemathematics.org/content-standards/4/NBT/A/3/tasks/1806>.

607 Illustrative Mathematics. n.d.c. *Grade 3-Locating Fractions Less than One on the*
608 *Number Line*. [http://tasks.illustrativemathematics.org/content-](http://tasks.illustrativemathematics.org/content-standards/3/NF/A/2/tasks/168)
609 [standards/3/NF/A/2/tasks/168](http://tasks.illustrativemathematics.org/content-standards/3/NF/A/2/tasks/168).

610 Illustrative Mathematics. n.d.d. *Grade 3-Find 1/4 Starting from 1, Assessment Version*.
611 <http://tasks.illustrativemathematics.org/content-standards/3/NF/A/2/tasks/1350>.

612 Jump\$tart and Council for Economic Education. 2021. *National Standards for Personal*
613 *Financial Education*. [https://www.jumpstart.org/what-we-do/support-financial-](https://www.jumpstart.org/what-we-do/support-financial-education/standards/)
614 [education/standards/](https://www.jumpstart.org/what-we-do/support-financial-education/standards/).

615 Kamii, Constance and Barbara A. Lewis. 1993. The harmful effects of algorithms in
616 primary arithmetic. *Teaching K–8*, 23(4), 36-38.

617 Kamii, Constance, Barbara A. Lewis, and Sally J. Livingston. 1993. Primary arithmetic:
618 Children inventing their own procedures. *The Arithmetic Teacher*, 41(4), 200-203.

619 Karp, Karen S., Sarah B. Bush, and Barbara J. Dougherty. 2014. “13 Rules That
620 Expire.” *Teaching Children Mathematics* 21(1): 18–25.

621 Kling, Gina, and Jennifer M. Bay-Williams. 2014. “Assessing Basic Fact Fluency.”
622 *Teaching Children Mathematics* 20(8).

623 Math Playground. n.d. *Math Playground. Give Your Brain a Workout*.
624 <https://www.mathplayground.com/>.

625 National Council of Teachers of Mathematics (NCTM). 2000. *Principles and Standards*
626 *for School Mathematics*. Reston, VA: National Council of Teachers of Mathematics.

627 National Council of Teachers of Mathematics (NCTM). 2014. *Principles to Actions:*
628 *Ensuring Mathematical Success for All*. Reston, VA: National Council of Teachers of
629 Mathematics.

630 National Governors Association Center for Best Practices and Council of Chief State
631 School Officers (NGA Center and CCSSO). 2010. *Common Core State Standards*.

632 Washington, D.C.: National Governors Association Center for Best Practices and
633 Council of Chief State School Officers.

634 Parrish, Sherry. 2011. "Number Talks Build Numerical Reasoning." *Teaching Children*
635 *Mathematics* 18(3): 198-206.

636 Reys, Barbara J., and Robert E. Reys. 1998. "Computation in the Elementary
637 Curriculum: Shifting the Emphasis." *Teaching Children Mathematics* 5(4): 236–242.

638 Schwerdtfeger, Julie Kern, and Angela Chan. 2007. "Counting Collections." *Teaching*
639 *Children Mathematics* 13(7): 356–361.

640 Shapiro, Edward S. n.d. "Tiered Instruction and Intervention in a Response-to-
641 Intervention Model." RTI Action Network.
642 [http://www.rtinetwork.org/essential/tieredinstruction/tiered-instruction-and-intervention-](http://www.rtinetwork.org/essential/tieredinstruction/tiered-instruction-and-intervention-rti-model)
643 [rti-model](http://www.rtinetwork.org/essential/tieredinstruction/tiered-instruction-and-intervention-rti-model).

644 Siegler, Robert, Thomas Carpenter, Francis Fennell, David Geary, James Lewis, Yukari
645 Okamoto, Laurie Thompson, Jonathan Wray. 2010. Developing Effective Fractions
646 Instruction for Kindergarten Through 8th Grade: A Practice Guide (NCEE #2010-4039).
647 Washington, DC: National Center for Education Evaluation and Regional Assistance,
648 Institute of Education Sciences, U.S. Department of Education.

649 Teach To One. 2021. "Mapping Middle School Math." [https://teachtoone.org/mapping-](https://teachtoone.org/mapping-middle-school-math/)
650 [middle-school-math/](https://teachtoone.org/mapping-middle-school-math/).

651 Turrou, Angela Chan, Megan L. Franke, and Nicholas Johnson. 2017. "Choral
652 Counting." *Teaching Children Mathematics* 24(2): 128–135.

653 University of Cambridge. n.d. *Nrich Maths at Home*. <https://nrich.maths.org>.

654 Van de Walle, John, Karen S. Karp, LouAnn H. Lovin, Jennifer M. Bay-Williams. 2014.
655 *Teaching Student-Centered Mathematics; Developmentally Appropriate Instruction for*
656 *Grades 3–5, Second Edition*. Upper Saddle River, NJ: Pearson.

657 Usiskin, Zalman. 1999. "Conceptions of School Algebra and Uses of Variables." In
658 Moses, Barbara (ed.), *Algebraic Thinking, Grades K–12: Readings from NCTM's*
659 *School-Based Journals and Other Publications*. Reston, VA: National Council of
660 Teachers of Mathematics.

661 **Chapter 4**

662 ACT, Inc. 2007. "Aligning Postsecondary Expectations and High School Practice: The
663 Gap Defined, Policy Implications of the ACT National Curriculum Survey Results, 2005–
664 2006."

665 ACT, Inc. 2020. ACT National Curriculum Survey 2020.
666 [http://www.act.org/content/act/en/research/reports/act-publications/national-curriculum-](http://www.act.org/content/act/en/research/reports/act-publications/national-curriculum-survey.html)
667 [survey.html](http://www.act.org/content/act/en/research/reports/act-publications/national-curriculum-survey.html).

668 Barnes, Bill, and Mona Toncheff. 2016. *Activating the Vision: The Four Keys of*
669 *Mathematics Leadership*. Bloomington, IN: Solution Tree Press.

670 Boaler, Jo. 2002. "The Development of Disciplinary Relationships: Knowledge, Practice
671 and Identity in Mathematics Classrooms." *For the Learning of Mathematics* 22(1): 42–
672 47.

673 Boaler, Jo. 2009. "Can Mathematics Problems Help with the Inequities in the World?:
674 Discussion of Part II: Sociocultural Factors." In *Words and Worlds: Modeling Verbal*
675 *Descriptions of Situations*, 131–139. Boston: Brill Sense.

676 Boaler, Jo. 2019. "Prove it To Me!" *Mathematics Teaching in the Middle School* 24(7):
677 422–428.

678 California Department of Education (CDE). 2014. *California English Language*
679 *Development Standards: Kindergarten Through Grade 12*.
680 <https://www.cde.ca.gov/sp/el/er/eldstandards.asp>.

681 Education Development Center. 2016. *Implementing the Mathematical Practice*
682 *Standards*. <http://mathpractices.edc.org/index.html>.

683 Fosnot, Catherine T., and Maarten Dolk. 2002. *Young Mathematicians at Work:*
684 *Constructing Fractions, Decimals, and Percents*. Portsmouth, NH: Heinemann.

685 Gravemeijer, Koeno. 1997. "Mediating between Concrete and Abstract." In T. Nunes,
686 and P. Bryant (Eds.), *Learning and Teaching Mathematics. An International Perspective*
687 (315–345). Psychology Press Ltd.

688 Gutstein, Eric. 2003. "Teaching and Learning Mathematics for Social Justice in an
689 Urban, Latino School." *Journal for Research in Mathematics Education* 34(1): 37–73.

690 Inside Mathematics. n.d. *Standard 7: Look for and Make Use of Structure*.
691 [https://www.insidemathematics.org/common-core-resources/mathematical-practice-](https://www.insidemathematics.org/common-core-resources/mathematical-practice-standards/standard-7-look-for-make-use-of-structure)
692 [standards/standard-7-look-for-make-use-of-structure](https://www.insidemathematics.org/common-core-resources/mathematical-practice-standards/standard-7-look-for-make-use-of-structure).

693 Intersegmental Committee of the Academic Senates of the California Community
694 Colleges, the California State University, and the University of California (ICAS). 2013.
695 *Statement on Competencies in Mathematics Expected of Entering College Students*.
696 <https://icas-ca.org/resources/competencies/>.

697 Jeannotte, Doris, and Carolyn Kieran. 2017. "A Conceptual Model of Mathematical
698 Reasoning for School Mathematics." *Educational Studies in Mathematics* 96(1): 1–16.

699 Kelemanik, Grace, and Amy Lucenta. n.d. *Connecting Representations (MP7)*.
700 Fostering Math Practices. [http://www.fosteringmathpractices.com/connecting-](http://www.fosteringmathpractices.com/connecting-representations/)
701 [representations/](http://www.fosteringmathpractices.com/connecting-representations/).

702 Langer-Osuna, Jennifer M., and Mary A. Avalos. 2015. "'I'm Trying to Figure This Out.
703 Why Don't You Come up Here?': Heterogeneous Talk and Dialogic Space in a
704 Mathematics Discussion." *ZDM* 47(7): 1313–1322.

705 Lerman, Stephen. 2000. "The Social Turn in Mathematics Education Research." In
706 Boaler, Jo (ed). *Multiple Perspectives on Mathematics Teaching and Learning*, 19–44.
707 Westport, CT: Ablex Publishing.

708 Maciejewski, Wes, and Jon Star. 2016. "Developing Flexible Procedures in First-year
709 Calculus." *Research in Mathematics Education* 18(3): 299–316.

710 Mathematics Education Collaborative. n.d. <https://www.mec-math.org/>.

711 McNeill, Katherine L., and Dean M. Martin. 2011. "Claims, Evidence, and Reasoning:
712 Demystifying Data during a Unit on Simple Machines." *Science and Children* 48(8): 52–
713 56.

714 National Academies of Sciences, Engineering, and Medicine. 2018. *How people learn II:
715 Learners, contexts, and cultures*. Washington, DC: National Academies Press.

716 National Council of Teachers of Mathematics (NCTM). 2014. *Principles to Actions:
717 Ensuring Mathematical Success for All*. Reston, VA: National Council of Teachers of
718 Mathematics.

719 National Governors Association Center for Best Practices and Council of Chief State
720 School Officers. 2010. *Common Core State Standards*. Washington, D.C.: National
721 Governors Association Center for Best Practices and Council of Chief State School
722 Officers.

723 New York State Education Department (NYSED). 2019. *Culturally Responsive-
724 Sustaining Education Framework*. [http://www.nysed.gov/bilingual-ed/culturally-
725 responsive-sustaining-education-framework](http://www.nysed.gov/bilingual-ed/culturally-responsive-sustaining-education-framework).

726 Oxford University Press. 2019. *Lexico*. <http://lexico.com/>.

727 Özgün-Koca, S. Asli, Kenneth Chelst, Thomas Edwards, and Jennifer Lewis. 2019. "A
728 Framework for Authentic Mathematics Problems." *Mathematics Teaching* 267: 17–20.

729 Pickering, Andrew. 1995. *The Mangle of Practice: Time, Agency, and Science*. Chicago:
730 University of Chicago Press.

731 San Francisco Unified School District Mathematics Department. n.d. "Rule of Four."
732 Retrieved from <http://www.sfusdmath.org/rule-of-four.html>.

733 Smith, Margaret S., and Mary Kay Stein. 2018. *5 Practices for Orchestrating Productive
734 Mathematics Discussions (2nd ed.)*. Thousand Oaks, CA: Corwin Press.

- 735 Swan, Malcolm, and Hugh Burkhardt. 2014. "Lesson Design for Formative
736 Assessment." *Educational Designer* 2(7).
- 737 Van Den Heuvel-Panhuizen, Marja. 2003. "The Didactical Use of Models in Realistic
738 Mathematics Education: An Example from a Longitudinal Trajectory on Percentage."
739 *Educational Studies in Mathematics* 54(1), 9–35.
- 740 Webb, Norman L. 2002. "Depth-Of-Knowledge Levels for Four Content Areas."
741 *Language Arts* 28(March).
- 742 Wikimedia Commons. 2014. Euler's Polyhedron Formula. Retrieved from
743 https://commons.wikimedia.org/wiki/File:Euler%27s_Polyhedron_Formula.svg.
- 744 Zwiers, Jeff, Jack Dieckmann, Sara Rutherford-Quach, Vinci Daro, Renae Skarin,
745 Steven Weiss, and James Malamut. 2017. "Principles for the Design of Mathematics
746 Curricula: Promoting Language and Content Development." Retrieved from Stanford
747 University, UL/SCALE website: [http://ell.stanford.edu/content/mathematics-resources-
748 additional-resources](http://ell.stanford.edu/content/mathematics-resources-additional-resources).

749 **Chapter 5**

- 750 Bargagliotti, Anna, Christine Franklin, Pip Arnold, Rob Gould, Sheri Johnson, Leticia
751 Perez, Denise Spangler. 2020. *Pre-K–12 Guidelines for Assessment and Instruction in
752 Statistics Education II (GAISE II): A Framework for Statistics and Data Science
753 Education*. Alexandria, VA: American Statistical Association.
- 754 Boaler, Jo, Montse Cordero, and Jack Dieckmann. 2019. "Pursuing Gender Equity in
755 Mathematics Competitions. A Case of Mathematical Freedom." Mathematics
756 Association of America, FOCUS, Feb/March 2019.
757 [http://digitaleditions.walworthprintgroup.com/publication/?m=7656&l=1#{%22issue_id%
758 22:566588,%22page%22:18](http://digitaleditions.walworthprintgroup.com/publication/?m=7656&l=1#{%22issue_id%22:566588,%22page%22:18).
- 759 Bureau of Labor Statistics. 2022. *Occupational Outlook Handbook: Data Scientists*.
760 Available at <https://www.bls.gov/ooh/math/data-scientists.htm>.

761 California Department of Education. 2013a. *California Next Generation Science*
762 *Standards*. <https://www.cde.ca.gov/pd/ca/sc/ngssstandards.asp>.

763 CDE. 2013b. Appendix 2: Connections to Environmental Principles and Concepts.
764 *California Next Generation Science Standards*.
765 <https://www.cde.ca.gov/ci/sc/cf/documents/scifwappendix2.pdf>.

766 California State Board of Education. 2022. Computer Science Education: Computer
767 Science Content Standards Development. Available at:
768 <https://www.cde.ca.gov/be/st/ss/computerscicontentstds.asp>.

769 Chestnut, Eleanor K., Ryan F. Lei, Sarah-Jane Leslie, and Andrei Cimpian. 2018. “The
770 Myth That Only Brilliant People Are Good At Math and Its Implications For Diversity.”
771 *Education Sciences* 8(2): 65.

772 Common Core Standards Writing Team. 2022. Progressions for the Common Core
773 State Standards for Mathematics (February 28, 2023). Tucson, AZ: Institute for
774 Mathematics and Education, University of Arizona. [https://mathematicalmusings.org/wp-](https://mathematicalmusings.org/wp-content/uploads/2023/02/Progressions.pdf)
775 [content/uploads/2023/02/Progressions.pdf](https://mathematicalmusings.org/wp-content/uploads/2023/02/Progressions.pdf).

776 DataScience4everyone. 2022. International Landscape in Data Science Education.
777 Available at: <https://www.datascience4everyone.org/international>.

778 Drozda, Zarek, Davis Johnstone, and Brooke Van Horne. n.d. “Previewing the National
779 Landscape of K–12 Data Science Implementation.” Paper commissioned for the
780 Workshop on Foundations of Data Science for Students in Grades K–12. Available at:
781 ([https://www.nationalacademies.org/documents/embed/link/LF2255DA3DD1C41C0A42](https://www.nationalacademies.org/documents/embed/link/LF2255DA3DD1C41C0A42D3BEF0989ACAECE3053A6A9B/file/D688ED916E82498DA0E2171A109936D679FD5DE26556?noSaveAs=1)
782 [D3BEF0989ACAECE3053A6A9B/file/D688ED916E82498DA0E2171A109936D679FD5](https://www.nationalacademies.org/documents/embed/link/LF2255DA3DD1C41C0A42D3BEF0989ACAECE3053A6A9B/file/D688ED916E82498DA0E2171A109936D679FD5DE26556?noSaveAs=1)
783 [DE26556?noSaveAs=1](https://www.nationalacademies.org/documents/embed/link/LF2255DA3DD1C41C0A42D3BEF0989ACAECE3053A6A9B/file/D688ED916E82498DA0E2171A109936D679FD5DE26556?noSaveAs=1)).

784 Education Development Center. 2016. “Building Global Interest in Data Literacy: A
785 Dialogue.” Workshop report. Waltham, MA: EDC Oceans of Data Institute.

786 International Data Science in Schools Project (IDSSP) Curriculum Team, Curriculum
787 Frameworks for Introductory Data Science. Available at:
788 http://idssp.org/files/IDSSP_Frameworks_1.0.pdf.

789 Kader, Gary D., Tim Jacobbe, Patricia Wilson and Rose Mary Zbiek. 2013. *Developing*
790 *Essential Understanding of Statistics for Teaching Mathematics in Grades 6–8*. Reston,
791 VA: National Council of Teachers of Mathematics.

792 Lieberman, Gerald, and K. Brown. 2020. Recommended Edits to Math Framework
793 Chapter 5: Data Science (public comment to Curriculum Framework and Evaluation
794 Criteria Committee. 9 December 2020).

795 National Academies of Sciences, Engineering, and Medicine. 2018. *Data Science for*
796 *Undergraduates: Opportunities and Options*. Washington, DC: The National Academies
797 Press.

798 National Center for Education Research. 2021. “Catalyzing a New Field: Data Science
799 Education in K–12.” Institute of Education Services Technical Working Group Meeting.
800 <https://ies.ed.gov/ncer/whatsnew/techworkinggroup/pdf/DataScienceTWG.pdf>.

801 National Oceanic and Atmospheric Administration, National Centers for Environmental
802 Information. 2023. Climate Data Online Search. Retrieved January 13, 2023, from
803 <https://www.ncdc.noaa.gov/cdo-web/>.

804 National Research Council. 2013. *Next Generation Science Standards: For States, By*
805 *States*. Washington, DC: The National Academies Press.

806 National Science Foundation Computer and Information Science and Engineering
807 Advisory Committee Data Science Working Group. 2016. “Realizing the potential of
808 data science: Final report from the National Science Foundation Computer and
809 Information Science and Engineering Advisory Committee Working Group.” National
810 Science Foundation. Available at: [https://www.nsf.gov/cise/ac-data-science-](https://www.nsf.gov/cise/ac-data-science-report/CISEACDataScienceReport1.19.17.pdf)
811 [report/CISEACDataScienceReport1.19.17.pdf](https://www.nsf.gov/cise/ac-data-science-report/CISEACDataScienceReport1.19.17.pdf).

812 Paris, Django. 2012. “Culturally Sustaining Pedagogy: A Needed Change in Stance,
813 Terminology, and Practice.” *Educational Researcher* 41(3): 93–97.

814 Peck, Roxy, Rob Gould, Stephen Miller, and Rose Mark Zbiek. 2013. “Developing
815 Essential Understanding of Statistics for Teaching Mathematics in Grades 9–12”
816 Reston, VA: National Council of Teachers of Mathematics

- 817 Pelesko, John. 2015. “‘The’ Modeling Cycle.”
818 <http://modelwithmathematics.com/2015/08/the-modeling-cycle/>.
- 819 Rawlings-Goss, Renata, Lillian (Boots) Cassel, Melissa Cragin, Catherine Cramer,
820 Angela Dingle, Shawnta Friday-Stroud, Al Herron, Nicholas Horton, Tasha R. Inniss,
821 Kari Jordan, Patti Ordóñez, Mary Rudis, Robert Rwebangira, Karl Schmitt, Dale Smith,
822 Sonya Stephens. 2018. “Keeping Data Science Broad: Negotiating the Digital & Data
823 Divide.” Workshop: Bridging the Digital and Data Divide. Retrieved from
824 [https://par.nsf.gov/biblio/10075971-keeping-data-science-broad-negotiating-digital-data-](https://par.nsf.gov/biblio/10075971-keeping-data-science-broad-negotiating-digital-data-divide-among-higher-education-institutions)
825 [divide-among-higher-education-institutions](https://par.nsf.gov/biblio/10075971-keeping-data-science-broad-negotiating-digital-data-divide-among-higher-education-institutions).
- 826 Walton, Gregory M., Christine Logel, Jennifer M. Peach, Steven J. Spencer, and Mark
827 P. Zanna. 2015. “Two Brief Interventions to Mitigate a ‘Chilly Climate’ Transform
828 Women’s Experience, Relationships, and Achievement in Engineering.” *Journal of*
829 *Educational Psychology* 107(2): 468–485.
- 830 Wolff, Annika, Daniel Gooch, Jose J. Cavero Montaner, Umar Rashid, Gerd Kortuem.
831 2016. “Creating an Understanding of Data Literacy for a Data-driven Society.” *The*
832 *Journal of Community Informatics* 12(3): 9–26.
- 833 **Chapter 6**
- 834 Achieve the Core. 2018. Mathematical Routines.
835 <https://achievethecore.org/content/upload/Mathematical%20Routines.pdf>.
- 836 Arizona Department of Education (ADE). 2010. Arizona’s College and Career Ready
837 Standards - Mathematics. 1st Grade Standards. [https://k12standards.az.gov/archived-](https://k12standards.az.gov/archived-english-language-arts-and-mathematics-standards-revisions/read-2010-standards)
838 [english-language-arts-and-mathematics-standards-revisions/read-2010-standards](https://k12standards.az.gov/archived-english-language-arts-and-mathematics-standards-revisions/read-2010-standards).
- 839 Bartell, Tonya Gau, and Alfinio Flores, Editors. 2014. TODOS, Research Monograph 3.
840 *Embracing Resources of Children, Families, Communities and Cultures in Mathematics*
841 *Learning*.
842 <https://toma.memberclicks.net/assets/documents/Monographs/todosmonograph3.pdf>.

843 Boaler, Jo. 2016. *Mathematical Mindsets: Unleashing Students' Potential Through*
844 *Creative Math, Inspiring Messages and Innovative Teaching*. Chappaqua, NY: Jossey-
845 Bass/Wiley.

846 Boaler, Jo, Cathy Williams, and Amanda Confer. 2015. "Fluency Without Fear:
847 Research Evidence on the Best Ways to Learn Math Facts." Youcubed. Retrieved from
848 <https://www.youcubed.org/evidence/fluency-without-fear/>.

849 Boaler, Jo and Thesha Sengupta-Irving. 2016. The many colors of algebra: The impact
850 of equity focused teaching upon student learning and engagement. *Journal of*
851 *Mathematical Behavior* 41, 179–190.

852 Brenner, Mary E., Richard E. Mayer, Bryan Moseley, Theresa Brar, Richard Durán,
853 Barbara Smith Reed, and David Webb. 1997. Learning by understanding: The role of
854 multiple representations in learning algebra. *American Educational Research Journal*,
855 34(4), 663–689.

856 Breyfogle, Lynn M., and Courtney M. Lynch. 2010. "Van Hiele, Revisited." *Mathematics*
857 *Teaching in the Middle School* 16(4): 238–232.

858 Burns, Marilyn. 2001. *Teaching Arithmetic: Lessons for Introducing Fractions*. Sausalito,
859 California: Math Solutions.

860 California Department of Education. n.d. Multi-Tiered System of Supports. California
861 Department of Education. <https://www.cde.ca.gov/ci/cr/ri/>.

862 California Department of Education. 2013. *California Common Core State Standards for*
863 *Mathematics*. Sacramento: California Department of Education.

864 Carpenter, Thomas P., Megan L. Franke, Victoria R. Jacobs, Elizabeth Fennema, and
865 Susan B. Empson. 1997. "A Longitudinal Study of Invention and Understanding in
866 Children's Multidigit Addition and Subtraction." *Journal for Research in Mathematics*
867 *Education* 29(1): 3–20.

868 Carpenter, Thomas, Elizabeth Fennema, Megan Loef Franke, Linda Levi, and Susan
869 Empson. 2014. *Children's Mathematics: Cognitively Guided Instruction*. Portsmouth,
870 NH: Heinemann.

871 Carroll, William M. 1997. Mental and written computation: Abilities of students in a
872 reform-based curriculum. *The Mathematics Educator*, 2(1), 18-32.

873 CAST. n.d. *About Universal Design for Learning*, [http://www.cast.org/impact/universal-](http://www.cast.org/impact/universal-design-for-learning-udl)
874 [design-for-learning-udl](http://www.cast.org/impact/universal-design-for-learning-udl).

875 Common Core Standards Writing Team. 2022. Progressions for the Common Core
876 State Standards for Mathematics (February 28, 2023). Tucson, AZ: Institute for
877 Mathematics and Education, University of Arizona. [https://mathematicalmusings.org/wp-](https://mathematicalmusings.org/wp-content/uploads/2023/02/Progressions.pdf)
878 [content/uploads/2023/02/Progressions.pdf](https://mathematicalmusings.org/wp-content/uploads/2023/02/Progressions.pdf).

879 Confer, Chris. 2005a. "Feet Under the Table." In *Teaching Number Sense,*
880 *Kindergarten*. Sausalito, CA: Math Solutions Publications.

881 Confer, Chris. 2005b. "The Pocket Game." In *Teaching Number Sense, Kindergarten*.
882 Sausalito, CA: Math Solutions Publications.

883 Daro, Phil. Against "Answer-Getting" [video]. Strategic Education Research Partnership
884 (SERP). <https://serpmedia.org/daro-talks/>.

885 Davis, Edward. 2006. "A Model for Understanding in Mathematics." *Mathematics*
886 *Teaching in the Middle School* 12(4).

887 DREME TE. n.d. Counting Collections Overview. Early Math Resources for Teacher
888 Educators. <https://prek-math-te.stanford.edu/counting/counting-collections-overview>.

889 Empson, Susan B. 1999. "Equal Sharing and Shared Meaning: The Development of
890 Fraction Concepts in a First-Grade Classroom." *Cognition and Instruction* 17(3): 283–
891 342.

892 Empson, Susan B., and Linda Levi. 2011. *Extending Children's Mathematics: Fractions*
893 *and Decimals*. Portsmouth, NH: Heinemann.

894 Featherstone, Helen, Sandra Crespo, Lisa Jilk, Joy Oslund, Amy Parks, and Marcy
895 Wood. 2011. *Smarter Together! Collaboration and Equity in the Elementary Math*
896 *Classroom*. Reston, VA: National Council of Teachers of Mathematics.

897 Ferlazzo, Larry. 2020. "Twelve Ways to Make Math More Culturally Responsive."
898 Education Week Opinion Blog. [https://www.edweek.org/teaching-learning/opinion-](https://www.edweek.org/teaching-learning/opinion-twelve-ways-to-make-math-more-culturally-responsive/2020/12)
899 [twelve-ways-to-make-math-more-culturally-responsive/2020/12](https://www.edweek.org/teaching-learning/opinion-twelve-ways-to-make-math-more-culturally-responsive/2020/12).

900 Fischer, Jean-Paul, Bruno Vilette, Sophie Joffredo-Lebrun, Mireille Morellato, Céline
901 Le Normand, Calliste Scheibling-Seve, and Jean-François Richard. 2019.
902 "Should we continue to teach standard written algorithms for the arithmetical
903 operations? The example of subtraction." *Educational Studies in Mathematics* 101:
904 105–121.

905 Fuson, Karen C., and Sybilla Beckmann. 2013. "Standard Algorithms in the Common
906 Core State Standards." *NCSM Journal* 14(2): 14–30.

907 Gardner, Anne. 2013. "Number Paths – A Fabulous Tool for Kindergarten and First
908 Grade Math." Toronto, ON: Tapfun.

909 Hansen, Pia, and Donna Mathern. 2008. "Shifting Roles and Responsibilities to Support
910 Mathematical Understanding." *Teaching Children Mathematics* 15(3): 162–167.

911 Illustrative Mathematics. 2016a. Button Diameters. Illustrative Mathematics.
912 <http://tasks.illustrativemathematics.org/content-standards/4/MD/B/4/tasks/1039>.

913 Illustrative Mathematics. 2016b. Comparing Money Raised. Illustrative Mathematics.
914 <http://tasks.illustrativemathematics.org/content-standards/4/OA/A/2/tasks/263>.

915 Illustrative Mathematics. 2016c. Doubling Numerators and Denominators. Illustrative
916 Mathematics. [http://tasks.illustrativemathematics.org/content-](http://tasks.illustrativemathematics.org/content-standards/4/NF/A/2/tasks/183)
917 [standards/4/NF/A/2/tasks/183](http://tasks.illustrativemathematics.org/content-standards/4/NF/A/2/tasks/183).

918 Illustrative Mathematics. n.d.a. Dividing by One-Half. Illustrative Mathematics.
919 <http://tasks.illustrativemathematics.org/content-standards/5/NF/B/7/tasks/12>.

- 920 Illustrative Mathematics. n.d.b Box of Clay. Illustrative Mathematics.
921 <http://tasks.illustrativemathematics.org/content-standards/5/MD/C/tasks/1031>.
- 922 Kazemi, Elham, and Allison Hintz. 2014. *Intentional Talk: How to Structure and Lead*
923 *Productive Mathematical Discussions*. Portland, ME: Stenhouse Publishers.
- 924 Kling, Gina, and Jennifer M. Bay-Williams. 2014. "Assessing Basic Fact Fluency."
925 *Teaching Children Mathematics* 20(8).
- 926 Kling, Gina, and Jennifer M. Bay-Williams. 2015. "Three Steps to Mastering
927 Multiplication Facts." *Teaching Children Mathematics* 21(9): 548–559.
- 928 Langer-Osuna, Jennifer M., and Indigo Esmonde. 2017. "Identity in Research on
929 Mathematics Education." *Compendium for Research in Mathematics Education*, 637-
930 648.
- 931 Moschkovich, Judit. 1999. "Supporting the Participation of English Language Learners
932 in Mathematical Discussions." *For the Learning of Mathematics* 19(1): 11–19.
- 933 National Governors Association Center for Best Practices, Council of Chief State School
934 Officers (NGA/CCSSO). 2010. Common Core State Standards. Washington, DC.
- 935 National Research Council. 2001. *Adding It Up: Helping Children Learn Mathematics*.
936 Washington, DC: National Academy Press.
- 937 National Research Council. 2009. *Mathematics Learning in Early Childhood: Paths*
938 *Toward Excellence and Equity*. Washington, DC: National Academies Press.
- 939 NCTM Principles and Standards for School Mathematics. 2000.
940 <https://www.nctm.org/Standards-and-Positions/Principles-and-Standards/>.
- 941 PBS Learning Media. 2008. *Data Clusters and Distributions*,
942 [https://www.pbslearningmedia.org/resource/vtl07.math.data.col.lpcluster/data-clusters-](https://www.pbslearningmedia.org/resource/vtl07.math.data.col.lpcluster/data-clusters-and-distributions/)
943 [and-distributions/](https://www.pbslearningmedia.org/resource/vtl07.math.data.col.lpcluster/data-clusters-and-distributions/).
- 944 PBS Learning Media. n.d. What's Typical, Based on the Shape of Data Charts? PBS
945 Learning Media Mathematics. <https://www.pbslearningmedia.org/>.

946 Sengupta-Irving, Tesha, and Noel Enyedy. 2014. "Why Engaging in Mathematical
947 Practices May Explain Stronger Outcomes in Affect and Engagement: Comparing
948 Student-Driven with Highly Guided Inquiry." *Journal of the Learning Sciences* 24(4):
949 550–592.

950 SERP Media. 2014. Formative Principles of the Common Core State Standards.
951 Mathematics Common Core State Standards. <https://serpmedia.org/daro-talks/>.

952 Sfard, Anna. 2007. "When the Rules of Discourse Change, But Nobody Tells You:
953 Making Sense of Mathematics Learning from a Commognitive Standpoint." *Journal of*
954 *the Learning Sciences* 16 (4): 565–613.

955 Siegler, Robert, Thomas Carpenter, Francis Fennell, David Geary, James Lewis, Yukari
956 Okamoto, Laurie Thompson, Jonathan Wray. 2010. Developing Effective Fractions
957 Instruction for Kindergarten Through 8th Grade: A Practice Guide (NCEE #2010-4039).
958 Washington, DC: National Center for Education Evaluation and Regional Assistance,
959 Institute of Education Sciences, U.S. Department of Education.

960 Smith, Margaret, and Mary Kay Stein. 2018. *5 Practices for Orchestrating Productive*
961 *Mathematics Discussions*, 2nd edition. Reston, VA: National Council of Teachers of
962 Mathematics.

963 Sullivan, Peter and Lilburn, Pat, 2002. *Good Questions for Math Teaching, Why Ask*
964 *Them and What to Ask*. Math Solutions Publications, Sausalito, California.

965 University of California, Berkeley. n.d. Learning Mathematics Through Representations.
966 Berkeley Graduate School of Education. <https://sites.google.com/view/lmrberkeleyedu>.

967 University of Texas at Austin. n.d. Inside Mathematics. The University of Texas at
968 Austin, Charles A. Dana Center.

969 Van de Walle, John, Karen S. Karp, LouAnn H. Lovin, Jennifer M. Bay-Williams. 2014.
970 *Teaching Student-Centered Mathematics; Developmentally Appropriate Instruction for*
971 *Grades 3–5, Second Edition*. Upper Saddle River, NJ: Pearson.

972 Youcubed n.d.a. Moving Colors. <https://www.youcubed.org/tasks/moving-colors/>.

973 Youcubed n.d.b. The Pocket Game. <https://www.youcubed.org/tasks/the-pocket-game/>.
974 Zwiers, Jeff, Jack Dieckmann, Sara Rutherford-Quach, Vinci Daro, Renae Skarin,
975 Steven Weiss, and James Malamut. 2017. "Principles for the Design of Mathematics
976 Curricula: Promoting Language and Content Development." Retrieved from Stanford
977 University, UL/SCALE website: [http://ell.stanford.edu/content/mathematics-resources-](http://ell.stanford.edu/content/mathematics-resources-additional-resources)
978 [additional-resources](http://ell.stanford.edu/content/mathematics-resources-additional-resources).

979 **Chapter 7**

980 Arbaugh, Fran, and Catherine A. Brown. 2005. "Analyzing Mathematical Tasks: A
981 Catalyst for Change?" *Journal of Mathematics Teacher Education* 8(6): 499–536.

982 Boaler, Jo, and Cathlee Humphreys. 2005. *Connecting Mathematical Ideas: Middle*
983 *School Video Cases to Support Teaching and Learning*. Portsmouth, NH: Heinemann.

984 California Department of Education. 2013. *California Common Core State Standards for*
985 *Mathematics*. Sacramento: California Department of Education.

986 California Department of Education. 2021. *Digital Learning Integration and Standards*
987 *Guidance*. <https://www.cadlsg.com/>.

988 Carpenter, Thomas P., C. Gomez, C. Rousseau, Olaf B. Steinthorsdottir, C. Valentine,
989 and L. Wagner, et al. 1999. "An Analysis of Student Construction of Ratio and
990 Proportion Understanding." Paper presented at the American Educational Research
991 Association, Montreal, Canada.

992 CAST. 2018. *Universal Design for Learning Guidelines version 2.2*. Retrieved from
993 [http://udlguidelines.cast.org/?utm_source=castsite&utm_medium=web&utm_campaign](http://udlguidelines.cast.org/?utm_source=castsite&utm_medium=web&utm_campaign=none&utm_content=aboutudl)
994 [=none&utm_content=aboutudl](http://udlguidelines.cast.org/?utm_source=castsite&utm_medium=web&utm_campaign=none&utm_content=aboutudl).

995 CODAP. n.d. *Common Online Data Analysis Platform (CODAP)*. Retrieved from
996 <https://codap.concord.org/>.

997 Driscoll, Mark J., Rachel W. DiMatteo, Johanna Nikula, and Michael Egan. 2017.
998 *Fostering Geometric Thinking: A Guide for Teachers, Grades 5–10*. Portsmouth, NH:

- 999 Heinemann.
- 1000 English Learners Success Forum. n.d. *Math Guidelines*. Retrieved from
1001 <https://www.elsuccessforum.org/math-guidelines/math-area-of-focus-1>.
- 1002 Falco, Lia D. 2019. "An Intervention to Support Mathematics Self-Efficacy in Middle
1003 School." *Middle School Journal* 50(2): 28–44.
- 1004 Fossum, Astrid. 2018. How to Select Math Intervention Content. Classroom
1005 Strategies, Research and Reflections. Achieve the Core.
1006 <https://achievethecore.org/aligned/select-math-intervention-content/>.
- 1007 Freeman, Yvonne S., and David E. Freeman. 2002. *Closing the Achievement Gap:
1008 How to Reach Limited-Formal-Schooling and Long-Term English Learners*.
1009 Portsmouth, NH: Heinemann.
- 1010 Intersegmental Committee of the Academic Senates. 2013. "Statement of
1011 Competencies in Mathematics Expected of Entering College Students." Retrieved from
1012 [https://www2.calstate.edu/csu-system/faculty-staff/academic-
1013 senate/Documents/reports/ICAS-Statement-Math-Competencies-2013.pdf](https://www2.calstate.edu/csu-system/faculty-staff/academic-senate/Documents/reports/ICAS-Statement-Math-Competencies-2013.pdf).
- 1014 Lamon, Susan J. 1993. "Ratio and Proportion: Connecting Content and Children's
1015 Thinking." *Journal for Research in Mathematics Education* 24(1): 41–61.
- 1016 Lamon, Susan J. 2012. "Changing Instruction." In *Teaching Fractions and Ratios for
1017 Understanding: Essential Content Knowledge and Instructional Strategies for
1018 Teachers*. New York: Routledge.
- 1019 Langer-Osuna, Jennifer M., and Indigo Esmonde. 2017. "Identity in Research on
1020 Mathematics Education." *Compendium for Research in Mathematics Education*, 637–
1021 648.
- 1022 Moschkovich, Judit. 1999. "Supporting the Participation of English Language Learners
1023 in Mathematical Discussions." *For the Learning of Mathematics* 19(1): 11–19.
- 1024 Moschkovich, Judit. 2013. *Principles for Mathematics Instruction for ELLs*. Retrieved

- 1025 from Stanford University, UL/SCALE website:
1026 https://ell.stanford.edu/teaching_resources/math.
- 1027 National Research Council. 2013. *Next Generation Science Standards: For States, By*
1028 *States*. Washington, DC: The National Academies Press.
- 1029 New York Times. n.d. *What's Going on in This Graph?* Retrieved from
1030 <https://www.nytimes.com/column/whats-going-on-in-this-graph>.
- 1031 Pajares, Frank, and Laura Graham. 1999. "Self-efficacy, Motivation Constructs, and
1032 Mathematics Performance of Entering Middle School Students." *Contemporary*
1033 *Educational Psychology* 24(2): 124–139.
- 1034 Pelesko. 2015. "'The' Modeling Cycle." Model with Mathematics. Retrieved from
1035 <http://modelwithmathematics.com/2015/08/the-modeling-cycle/>.
- 1036 Petersen, Jennifer L., and Janet S. Hyde. 2017. "Trajectories of Self-perceived Math
1037 Ability, Utility Value and Interest Across Middle School as Predictors of High School
1038 Math Performance." *Educational Psychology* 37(4): 438–456.
- 1039 San Francisco Unified School District Mathematics Department. 2015. Re-
1040 engagement. Retrieved from San Francisco Unified School District website:
1041 <http://www.sfusdmath.org/reengagement.html>.
- 1042 Sfard, Anna. 2007. "When the Rules of Discourse Change, But Nobody Tells You:
1043 Making Sense of Mathematics Learning from a Commognitive Standpoint." *Journal of*
1044 *the Learning Sciences* 16(4): 565–613.
- 1045 Steinthorsdottir, Olof B., and Bharath Sriraman. 2009. "Icelandic 5th-grade Girls'
1046 Developmental Trajectories in Proportional Reasoning." *Mathematics Education*
1047 *Research Journal* 21(1): 6–30.
- 1048 Su, Francis. 2020. *Mathematics for Human Flourishing*. New Haven, CT: Yale
1049 University Press.

- 1050 The University of Arizona. n.d. *Progression Documents for the Common Core Math*
1051 *Standards*. Retrieved from [https://mathematicalmusings.org/wp-](https://mathematicalmusings.org/wp-content/uploads/2023/02/Progressions.pdf)
1052 [content/uploads/2023/02/Progressions.pdf](https://mathematicalmusings.org/wp-content/uploads/2023/02/Progressions.pdf).
- 1053 Walqui, Aida, and Leo Van Lier. 2010. *Scaffolding the Academic Success of*
1054 *Adolescent English Language Learners: A Pedagogy of Promise*. San Francisco, CA:
1055 WestEd.
- 1056 Williams, Krystal L., Brian A. Burt, and Adriel A. Hilton. 2016. “Math Achievement: A
1057 Role Strain and Adaptation Approach.” *Journal for Multicultural Education* 10(3): 368–
1058 383.
- 1059 Youcubed. 2018. *Youcubed Border Problem Week 1 – Days 1 & 2*. Retrieved from
1060 <https://www.youcubed.org/wp-content/uploads/2018/09/Border-Problem-final-copy.pdf>.
- 1061 Youcubed. 2020a. *Youcubed Data Talk Women’s Soccer*. Retrieved from
1062 <https://www.youcubed.org/wp-content/uploads/2020/11/Womens-Soccer-1.pdf>.
- 1063 Youcubed. 2020b. *Youcubed Data Talk Endangered Species*. Retrieved from
1064 <https://www.youcubed.org/wp-content/uploads/2020/09/EndangeredSpecies.pdf>.
- 1065 Zwiers, Jeff, Jack Dieckmann, Sara Rutherford-Quach, Vinci Daro, Renae Skarin,
1066 Steven Weiss, and James Malamut. 2017. “Principles for the Design of Mathematics
1067 Curricula: Promoting Language and Content Development.” Retrieved from Stanford
1068 University, UL/SCALE website: [http://ell.stanford.edu/content/mathematics-resources-](http://ell.stanford.edu/content/mathematics-resources-additional-resources)
1069 [additional-resources](http://ell.stanford.edu/content/mathematics-resources-additional-resources).
- 1070 Zwiers, Jeff. 2018. “Developing Reasoning and its Language in Secondary
1071 Mathematics Instruction.” *Soleado—Promising Practices from the Field* 11(1): 1–11.
1072 Retrieved from [https://www.dlenm.org/wp-](https://www.dlenm.org/wp-content/uploads/2019/11/Soleado_Fall_2018_Final_8_17.pdf)
1073 [content/uploads/2019/11/Soleado_Fall_2018_Final_8_17.pdf](https://www.dlenm.org/wp-content/uploads/2019/11/Soleado_Fall_2018_Final_8_17.pdf).

1074 **Chapter 8**

- 1075 Burris, Carol Corbett, Jay P. Heubert, and Henry M. Levin. 2006. "Accelerating
1076 Mathematics Achievement Using Heterogeneous Grouping." *American Educational*
1077 *Research Journal*, 43(1), 137–154.
- 1078 Cabana, Carlos, Barbara Shreve, and Estelle Woodbury. 2014. "Working Toward an
1079 Equity Pedagogy." In Na'ilah Nasir, Carlos Cabana, Barbara Shreve, Estelle Woodbury,
1080 and Nicole N. Louie (Eds.) *Mathematics for Equity: A Framework For Successful*
1081 *Practice*. New York: Teachers College Press.
- 1082 Cai, Jinfa, and Stephen Hwang. 2019. "Learning to Teach Through Mathematical
1083 Problem Posing: Theoretical Considerations, Methodology, and Directions for Future
1084 Research." *International Journal of Educational Research* 102.
- 1085 California Department of Education (CDE). 2013, 2014. *California Common Core State*
1086 *Standards: Mathematics*.
1087 <https://www.cde.ca.gov/BE/st/ss/documents/ccssmathstandardaug2013.pdf>.
- 1088 Chouinard, Roch, and Normand Roy. 2008. Changes in high-school students'
1089 competence beliefs, utility value and achievement goals in mathematics. *British Journal*
1090 *of Educational Psychology* 78(1): 31–50.
- 1091 Daro, Phil. 2013. Against "Answer-Getting" [Video]. Strategic Education Research
1092 Partnership. <https://serpmedia.org/daro-talks/>.
- 1093 Deslauriers, Louis, Logan S. McCarty, Kelly Miller, Kristina Callaghan, and Greg Kestin.
1094 2019. "Measuring Actual Learning Versus Feeling of Learning in Response to Being
1095 Actively Engaged in the Classroom." *Proceedings of the National Academy of Sciences*
1096 *of the United States of America* 116(39): 19251–19257.
- 1097 Domina, Thurston, Andrew M. Penner, Emily K. Penner, and Annmarie Conley. 2014.
1098 "Algebra for All: California's Eighth-Grade Algebra Initiative as Constrained Curricula."
1099 *Teachers College Record* 116(8), 1–32.
- 1100 Domina, Thurston, Andrew McEachin, Andrew Penner, and Emily Penner. 2015.
1101 "Aiming High and Falling Short: California's Eighth-Grade Algebra-for-All Effort."

- 1102 *Educational Evaluation and Policy Analysis* 37(3): 275–295.
- 1103 Duckworth, Eleanor. 2006. *The Having of Wonderful Ideas and Other Essays on*
1104 *Teaching and Learning*. New York: Teachers College Press.
- 1105 Grouws, Douglas A, James E. Tarr, Óscar Chávez, Ruthmae Sears, Victor M. Soria,
1106 and Rukiye D. Taylan. 2013. “Curriculum and implementation effects on high school
1107 students' mathematics learning from curricula representing subject-specific and
1108 integrated content organizations.” *Journal for Research in Mathematics Education*
1109 44(2): 416–463.
- 1110 Gutstein, Eric. 2006. *Reading and Writing the World with Mathematics: Toward a*
1111 *Pedagogy for Social Justice*. New York: Routledge.
- 1112 Gutstein, Eric. 2008. “Connecting Community, Critical, and Classical Knowledge in
1113 Teaching Mathematics for Social Justice.” In *International Perspectives on Social*
1114 *Justice in Mathematics Education*, edited by Bharath Sriraman. Charlotte, NC:
1115 Information Age Publishing.
- 1116 Hemmi, Kirsti, Kajsa Bråting, and Madis Lepik. 2021. “Curricular Approaches to Algebra
1117 in Estonia, Finland and Sweden – A Comparative Study.” *Mathematical Thinking and*
1118 *Learning* 23(1): 49–71.
- 1119 Hõim, Terge, Carita Hommik, and Ülle Kikas. 2016. “Changing Mathematics Education
1120 in Estonia: Computer-based Statistics Project.” Proceedings of the CIDREE-STEM
1121 expert meeting, 23–29.
- 1122 House, P. A. 2003. “Integrated mathematics: An Introduction.” In *Integrated*
1123 *Mathematics Choices and Challenges*, edited by S. A. McGraw. Reston, VA: National
1124 Council of Teachers of Mathematics: 3–12.
- 1125 Hulleman, Chris, Jeff John Kosovich, Kenneth E. Barron, and David B. Daniel. 2017.
1126 “Making Connections: Replicating and Extending the Utility Value Intervention in the
1127 Classroom.” *Journal of Educational Psychology* 109(3): 387–404.

1128 Intersegmental Committee of the Academic Senates of the California Community
1129 Colleges, the California State University, and the University of California. 2010, 2013.
1130 *Statement on Competencies in Mathematics Expected of Entering College Students*.
1131 [https://icas-ca.org/wp-content/uploads/2020/05/ICAS-Statement-Math-Competencies-](https://icas-ca.org/wp-content/uploads/2020/05/ICAS-Statement-Math-Competencies-2013.pdf)
1132 [2013.pdf](https://icas-ca.org/wp-content/uploads/2020/05/ICAS-Statement-Math-Competencies-2013.pdf).

1133 Johnson, Sydney. 2020. "University of California Expands List of Courses That Meet
1134 Math Requirement for Admission." EdSource. [https://edsource.org/2020/university-of-](https://edsource.org/2020/university-of-california-expands-list-of-courses-that-meet-math-requirement-for-admission/643173)
1135 [california-expands-list-of-courses-that-meet-math-requirement-for-admission/643173](https://edsource.org/2020/university-of-california-expands-list-of-courses-that-meet-math-requirement-for-admission/643173).

1136 Liang, Jian-Hua, Paul E. Heckman and Jamal Abedi. 2012. "What Do the California
1137 Standards Test Results Reveal about the Movement Toward Eighth Grade Algebra for
1138 All?" *Educational Evaluation and Policy Analysis* 34(3): 328–343.

1139 Los Angeles Unified School District (LAUSD). n.d. Three-Phase Lesson Structure.
1140 [https://achieve.lausd.net/cms/lib/CA01000043/Centricity/domain/335/lessons/integrated](https://achieve.lausd.net/cms/lib/CA01000043/Centricity/domain/335/lessons/integrated%20math/integrated%20math%20pd/Three-PhaseLessonStructure.pdf)
1141 [%20math/integrated%20math%20pd/Three-PhaseLessonStructure.pdf](https://achieve.lausd.net/cms/lib/CA01000043/Centricity/domain/335/lessons/integrated%20math/integrated%20math%20pd/Three-PhaseLessonStructure.pdf).

1142 Mathematical Association of America and National Council of Teachers of Mathematics.
1143 2012, April 5. A Joint Position Statement of the Mathematical Association of America
1144 and the National Council of Teachers of Mathematics on Teaching Calculus.
1145 Mathematical Association of America. [https://www.maa.org/programs/faculty-and-](https://www.maa.org/programs/faculty-and-departments/curriculum-department-guidelines-recommendations/joint-statement-teaching-calculus)
1146 [departments/curriculum-department-guidelines-recommendations/joint-statement-](https://www.maa.org/programs/faculty-and-departments/curriculum-department-guidelines-recommendations/joint-statement-teaching-calculus)
1147 [teaching-calculus](https://www.maa.org/programs/faculty-and-departments/curriculum-department-guidelines-recommendations/joint-statement-teaching-calculus).

1148 Meyer, Dan. 2010. *Math Class Needs a Makeover* [Video file]. Retrieved from
1149 [https://www.ted.com/talks/dan_meyer_math_class_needs_a_makeover/up-](https://www.ted.com/talks/dan_meyer_math_class_needs_a_makeover/up-next?language=en)
1150 [next?language=en](https://www.ted.com/talks/dan_meyer_math_class_needs_a_makeover/up-next?language=en).

1151 Ministry of Education, Japan. 2010. Japanese Curriculum.
1152 <https://www.futureschool.com/japan-curriculum/#552f669b6a75b>.

1153 National Center on Education and the Economy (NCEE). n.d. Top Performing
1154 Countries: Estonia. <https://ncee.org/country/estonia/>.

1155 National Governors Association Center for Best Practices, Council of Chief State School
1156 Officers (NGA/CCSSO). 2010. *Mathematics, High School: Modeling*. Washington, DC:
1157 National Governors Association Center for Best Practices, Council of Chief State School
1158 Officers..

1159 Okano, Kaori, and Motonori Tsuchiya. 1999. *Education in Contemporary Japan:
1160 Inequality and Diversity*. Cambridge: Cambridge University Press.

1161 Organization for Economic Cooperation and Development (OECD) and Programme for
1162 International Student Assessment (PISA). 2012. *PISA 2012 Technical Report*. Paris:
1163 OECD.

1164 Paik, Sun-Yun. 2004. "Mathematics Curriculum in Korea." Part of Korean Presentation
1165 at ICME-10, Copenhagen, Demark, July 6, 2004. [http://matrix.skku.ac.kr/For-ICME-
1166 11/ICME/cp2.pdf](http://matrix.skku.ac.kr/For-ICME-11/ICME/cp2.pdf).

1167 Sahlberg, Pasi. 2021. *Finnish Lessons 3. 0: What Can the World Learn from
1168 Educational Change in Finland?* New York: Teachers College Press.

1169 Schwartz, Daniel, and John Bransford. 1998. "A Time for Telling." *Cognition and
1170 Instruction* 16(4): 475–522.

1171 Stigler, James, and James Heibert. 1997. "Understanding and Improving Classroom
1172 Mathematics Instruction: An Overview of the TIMSS Video Study." *Phi Delta Kappan*
1173 79(1): 14–21.

1174 Tarr, James E., Douglas A. Grouws, Óscar Chávez, and Victor M. Soria. 2013. "The
1175 Effects of Content Organization and Curriculum Implementation on Students'
1176 Mathematics Learning in Second-Year High School Courses." *Journal for Research in
1177 Mathematics Education* 44(4): 683–729.

1178 University of California. 2020. *Policy Announcement on Area C*.

1179 Usiskin, Zalman. 2003. "The Integration of the School Mathematics Curriculum in the
1180 United States: History and Meaning." In *Integrated Mathematics Choices and*

1181 *Challenges*, edited by S. A. McGraw. Reston, VA: National Council of Teachers of
1182 Mathematics: 13–32.

1183 **Chapter 9**

1184 Antonovics, Kate, Sandra E. Black, Julie B. Cullen, and Akiva Y. Meiselman. 2022.
1185 “Patterns, Determinants, and Consequences of Ability Tracking: Evidence from Texas
1186 Public Schools (Working Paper No. 30370).” National Bureau of Economic Research.

1187 Bacher-Hicks, Andrew, and Christopher Avery. 2018. “The Effect of Classroom
1188 Assignment Policies on Equitable Access to High-Quality Teachers.” Paper presented
1189 at the 2018 annual meeting of the Association for Public Policy Analysis and
1190 Management. Available at:
1191 <https://appam.confex.com/appam/2018/webprogram/Paper28440.html>.

1192 Beal, Carol, R. Walles, I. Arroyo, and B.P. Woolf. 2007. “On-line Tutoring for Math
1193 Achievement Testing: A Controlled Evaluation.” *Journal of Interactive Online Learning*
1194 6(1): 43–55.

1195 Betts, Julian R., Andrew Zau, and Lorien Rice. 2003. “Determinants of Student
1196 Achievement: New Evidence from San Diego.” San Francisco, CA: Public Policy
1197 Institute of California.

1198 Boaler, Jo, and Megan Staples. 2008. “Creating Mathematical Futures through an
1199 Equitable Teaching Approach: The Case of Railside School.” *Teachers’ College Record*
1200 110(3): 608-645.

1201 Boaler, Jo. 2016. *Mathematical Mindsets: Unleashing Students’ Potential through*
1202 *Creative Math, Inspiring Messages and Innovative Teaching*. Chappaqua, NY: Jossey-
1203 Bass/Wiley.

1204 Boaler, Jo, Jack Dieckmann, Graciela Pérez-Núñez, Kathy Sun, and Cathy Williams.
1205 2018. “Changing Students Minds and Achievement in Mathematics: The Impact of a
1206 Free Online Student Course.” *Frontiers in Education* 3:26.

- 1207 Boaler, Jo, and David Foster. 2021. "Raising Expectations and Achievement: The
1208 Impact of Two Wide Scale De-Tracking Mathematics Reforms." Youcubed and Silicon
1209 Valley Mathematics Initiative. [https://www.youcubed.org/wp-](https://www.youcubed.org/wp-content/uploads/2017/09/Raising-Expectations-2021.pdf)
1210 [content/uploads/2017/09/Raising-Expectations-2021.pdf](https://www.youcubed.org/wp-content/uploads/2017/09/Raising-Expectations-2021.pdf).
- 1211 Briars, Diane J., Harold Asturias, David Foster, and Mardi A. Gale. 2013. "Implementing
1212 the Teaching-Assessing-Learning- Cycle." In *Common Core Mathematics in a PLC at*
1213 *Work Grades 6-8*. Bloomington, IN: Solution Tree Press.
- 1214 California Department of Education. 2016. Implementing the California Mathematics
1215 Placement Act of 2015.
- 1216 California Department of Education. 2021. *Digital Learning Integration and Standards*
1217 *Guidance*. <https://www.cadlsg.com/>.
- 1218 Callahan, Rebecca M., Melissa Humphries, and Jenny Buontempo. 2020. "Making
1219 Meaning, Doing Math: High School English Learners, Student-Led Discussion, and
1220 Math Tracking." *International Multilingual Research Journal* 15(1): 82–103.
- 1221 Card, David, and Laura Giuliano. 2016. "Can Tracking Raise the Test Scores of High-
1222 Ability Minority Students?" *American Economic Review* 106(10): 2783–2816.
- 1223 Chestnut, Eleanor K., Ryan F. Lei, Sarah-Jane Leslie, and Andrei Cimpian. 2018. "The
1224 Myth That Only Brilliant People Are Good at Math and Its Implications for Diversity."
1225 *Education Sciences* 8(2): 65.
- 1226 Collins, C.A. & Gan, L. 2013. "Does Sorting Students Improve Scores? An Analysis of
1227 Class Composition (Working Paper 18848)". Cambridge, MA: National Bureau of
1228 Economic Research. Available at: <http://www.nber.org/papers/w18848>.
- 1229 Core-Plus Mathematics. n.d. *Evaluation*. Retrieved from [http://core-](http://core-plusmath.org/evaluation.html)
1230 [plusmath.org/evaluation.html](http://core-plusmath.org/evaluation.html).
- 1231 Darling-Hammond, Linda, Molly Zielezinski, and Shelley Goldman. 2014. *Using*
1232 *Technology to Support At-Risk Students' Learning*. Stanford, CA: Stanford Center for
1233 Opportunity Policy in Education.

- 1234 Del Pinal, Guillermo, Alex Madva, and Kevin Reuter. 2017. "Stereotypes, Conceptual
1235 Centrality and Gender Bias: An Empirical Investigation." *Ratio* 30(4): 384–410.
- 1236 Deunk, Marjolein I., Annemieke E. Smale-Jacobse, Hester de Boer, Simoe Doolaard,
1237 and Roel J. Bosker. 2018. "Effective Differentiation Practices: A Systematic Review and
1238 Meta-Analysis of Studies on the Cognitive Effects of Differentiation Practices in Primary
1239 Education." *Educational Research Review* 24 (June 2018): 31–54.
- 1240 Dietrichson, Jens, Martin Bøg, Trine Filges, and Anne-Marie Klint Jørgensen. 2017.
1241 "Academic Interventions for Elementary and Middle School Students with Low
1242 Socioeconomic Status: A Systematic Review and Meta-Analysis." *Review of*
1243 *Educational Research* 87(2), 243–282.
- 1244 Doidge, Norman. 2007. *The Brain That Changes Itself*. New York: Penguin.
- 1245 Elmore, Kristen C., and Myra Luna-Lucero. 2017. "Light Bulbs or Seeds? How
1246 Metaphors for Ideas Influence Judgments about Genius." *Social Psychological and*
1247 *Personality Science* 8(2): 200–208.
- 1248 Fennema, Elizabeth, Penelope L. Peterson, Thomas P. Carpenter, and Cheryl Lubinski.
1249 1990. "Teachers' Attributions and Beliefs About Girls, Boys, and Mathematics."
1250 *Educational Studies in Mathematics* 21(1): 55–69.
- 1251 Foster, David, and Audrey E. Poppers. 2011. "How Can I Get Them to Understand?
1252 Formative Assessment and Reengaging Students in Core Mathematics." *New Frontiers*
1253 *in Formative Assessment*. Cambridge, MA: Harvard University Press.
- 1254 Guyon, Nina and Maurin, Eric and McNally, Sandra. 2011. "The Effect of Tracking
1255 Students by Ability into Different Schools: A Natural Experiment (January 5, 2011)."
1256 FEEM Working Paper No. 152.2010.
- 1257 Hanushek, Eric A. and Ludger Woessmann (2006), "Does Early Tracking Affect
1258 Educational Inequality and Performance? Differences-in-Differences Evidence across
1259 Countries", *Economic Journal* 116 (510), C63–C76.

- 1260 Hemmi, Kirsti, Kajsa Bråting, and Madis Lepik. 2021. "Curricular Approaches to Algebra
1261 in Estonia, Finland and Sweden – a Comparative Study." *Mathematical Thinking and*
1262 *Learning* 23(1): 49–71.
- 1263 Herold, Benjamin. 2019. "What is Personalized Learning?" Education Week Special
1264 Report. <https://www.edweek.org/technology/what-is-personalized-learning/2019/11>.
- 1265 J-PAL Evidence Review. 2019. "Will Technology Transform Education for the Better?"
1266 Available at: [https://www.povertyactionlab.org/publication/will-technology-transform-](https://www.povertyactionlab.org/publication/will-technology-transform-education-better)
1267 [education-better](https://www.povertyactionlab.org/publication/will-technology-transform-education-better).
- 1268 Kalogrides, Demetra and Susanna Loeb. 2013. "Different Teachers, Different Peers:
1269 The Magnitude of Student Sorting Within Schools." *Educational Researcher*, 42(6),
1270 304–316.
- 1271 Kwon, Hyunkyung, Robert M. Capraro, and Mary Margaret Capraro. 2021. "When I
1272 Believe, I Can: Success STEMs from My Perceptions." *Canadian Journal of Science,*
1273 *Mathematics and Technology Education* 21(1): 67–85.
- 1274 Langer-Osuna, Jennifer M. 2007. "Toward A Framework for the Co-Construction of
1275 Learning and Identity in the Mathematics Classroom." In *Proceedings from the 2nd*
1276 *Sociocultural Theory in Education Conference: Theory, Identity and Learning*.
- 1277 Langer-Osuna, Jennifer M. 2017. "Authority, Identity, and Collaborative Mathematics."
1278 *Journal for Research in Mathematics Education* 48(3): 237–247.
- 1279 Letchford, Lois. 2018. *Reversed: A Memoir*. Irvine, CA: Acorn Publishing.
- 1280 Loveless, Tom. 2021. "Does Detracking Promote Educational Equity?" Brookings.
1281 <https://www.brookings.edu/articles/does-detracking-promote-educational-equity/>.
- 1282 Maguire, Eleanor A., Katherine Woollett, and Hugo J. Spiers. 2006. "London Taxi
1283 Drivers and Bus Drivers: A Structural MRI and Neuropsychological Analysis."
1284 *Hippocampus* 16(12): 1091–1101.

- 1285 Margolis, Jesse. 2019. Three-Year MAP Growth at Schools Using Teach to One: Math.
1286 MarGrady Research.
- 1287 Math Circle Network. n.d. *Homepage*. Retrieved from <https://mathcircles.org/>.
- 1288 Mathematical Olympiads for Elementary & Middle Schools. n.d. *Welcome to MOEMS*.
1289 Retrieved from <https://moems.org/>.
- 1290 Modern Classrooms Team. 2021. "An Instructional Model That Supports Students, Both
1291 Inside and Outside the Classroom." [https://www.swivl.com/2021/02/22/an-instructional-
1292 model-that-supports-students-both-inside-and-outside-the-classroom/](https://www.swivl.com/2021/02/22/an-instructional-model-that-supports-students-both-inside-and-outside-the-classroom/).
- 1293 Moses, Robert, and Charles Cobb. 2002. *Radical Equations: Civil Rights from*
1294 *Mississippi to the Algebra Project*. Boston: Beacon Press.
- 1295 Murphy, Robert, Lawrence Gallagher, Andrew Krumm, Jessica Mislavy, and Amy
1296 Hafter. 2014. *Research on the Use of Khan Academy in Schools*. Menlo Park, CA: SRI
1297 Education.
- 1298 Na'ilah Suad Nasir, Carlos Cabana, Barbara Shreve, Estelle Woodbury, and Nicole
1299 Louie (Eds). 2014. *Mathematics for Equity: A Framework for Successful Practice*. New
1300 York: Teachers College Press.
- 1301 National Center on Education and the Economy. n.d. Top Performing Countries:
1302 Estonia. <https://ncee.org/country/estonia/>.
- 1303 National Council of Teachers of Mathematics. 2020. *Catalyzing Change in Middle*
1304 *School Mathematics*. Reston, VA: National Council of Teachers of Mathematics.
- 1305 National Student Support Accelerator. n.d. Research overview.
1306 <https://studentsupportaccelerator.com/>.
- 1307 Nickow, Andre, Philip Oreopoulos, and Vincent Quan. 2020. "The Impressive Effects of
1308 Tutoring on PreK-12 Learning: A Systemic Review and Meta-Analysis of the
1309 Experimental Evidence." Cambridge, MA: National Bureau of Economic Research.

- 1310 Oakes, Jeannie. 2005. *Keeping Track: How Schools Structure Inequality*. New Haven:
1311 Yale University Press.
- 1312 Okano, Kaori, and Motonori Tsuchiya. 1999. *Education in Contemporary Japan:
1313 Inequality and Diversity*. Cambridge: Cambridge University Press.
- 1314 Phillips, Andrea, John F. Pane, Rebecca Reumann-Moore, and Shenbanjo Oluwatosin.
1315 2000. "Implementing an Adaptive Intelligent Tutoring System as an Instructional
1316 Supplement." *Educational Technology Research and Development* 68: 1049-1437.
- 1317 Rui, Ning. 2009. "Four Decades of Research on the Effects of Detracking Reform:
1318 Where Do We Stand?—a Systematic Review of the Evidence." *Journal of Evidence-
1319 Based Medicine* 2(3): 164–183.
- 1320 Schwartz, Laurent. 2001. *A Mathematician Grappling With His Century*. Basel:
1321 Birkhäuser.
- 1322 Stigler, James W., and James Hiebert. 2009. *The Teaching Gap: Best Ideas from the
1323 World's Teachers for Improving Education in the Classroom*. New York: Simon and
1324 Schuster.
- 1325 Tiedemann, Joachim. 2000. "Gender-Related Beliefs of Teachers in Elementary School
1326 Mathematics." *Educational Studies in Mathematics* 41(2): 191–207.
- 1327 US Department of Education. 2017. Issue Brief: Academic Tutoring in High Schools.
1328 <https://www2.ed.gov/rschstat/eval/high-school/academic-tutoring.pdf>.
- 1329 US Department of Education. 2018. Issue Brief: Academic Support Classes.
1330 <https://www2.ed.gov/rschstat/eval/high-school/academic-support.pdf>.
- 1331 White, Sara, Megan Carey, Annie O'Donnell, and Susanna Loeb. n.d. Early lessons
1332 from implementing high-impact tutoring at scale. National Student Support Accelerator.
1333 Available at:
1334 [https://studentsupportaccelerator.com/sites/default/files/Early%20Lessons%20from%20
1335 mplementing%20High-Impact%20Tutoring%20at%20Scale.pdf](https://studentsupportaccelerator.com/sites/default/files/Early%20Lessons%20from%20Implementing%20High-Impact%20Tutoring%20at%20Scale.pdf).

1336 Woessmann, Ludger. 2009. International Evidence on School Tracking: A Review. ifo
1337 DICE Report, ifo Institute - Leibniz Institute for Economic Research at the University of
1338 Munich 7(1). <https://www.ifo.de/DocDL/dicereport109-rr1.pdf>.

1339 YouCubed. 2018. Border Problem. [https://www.youcubed.org/wp-](https://www.youcubed.org/wp-content/uploads/2018/09/Border-Problem-final-copy.pdf)
1340 [content/uploads/2018/09/Border-Problem-final-copy.pdf](https://www.youcubed.org/wp-content/uploads/2018/09/Border-Problem-final-copy.pdf).

1341 **Chapter 10**

1342 Anderson, Robin K., Jo Boaler, Jack A. Dieckmann. 2018. "Achieving Elusive Teacher
1343 Change through Challenging Myths about Learning: A Blended Approach." *Education*
1344 *Sciences* 8(3): 98.

1345 Ball, Deborah. 2018. "Just Dreams and Imperatives: The Power of Teaching in the
1346 Struggle for Public Education." Paper presented at the Annual Meeting of the American
1347 Educational Research Association (AERA), New York. [https://www.aera.net/Events-](https://www.aera.net/Events-Meetings/Webcasts-of-Lectures-Events)
1348 [Meetings/Webcasts-of-Lectures-Events](https://www.aera.net/Events-Meetings/Webcasts-of-Lectures-Events).

1349 California Department of Education (CDE). 2014. *English Language Arts/English*
1350 *Language Development Framework*. <https://www.cde.ca.gov/ci/rl/cf/>.

1351 California Department of Education (CDE). 2017. *California English Learner Roadmap:*
1352 *Strengthening Comprehensive Educational Policies, Programs, and Practices for*
1353 *English Learners*. <https://www.cde.ca.gov/sp/el/rm/>.

1354 CDE. 2016. *Science Framework for California Public Schools: Kindergarten through*
1355 *Grade Twelve*. <https://www.cde.ca.gov/ci/sc/cf/cascienceframework2016.asp>.

1356 CDE. n.d. Multi-Tiered System of Support.
1357 <https://www.cde.ca.gov/ci/cr/ri/mtsscomprti2.asp>.

1358 California Action Network for Mathematics Excellence and Equity. n.d.
1359 <https://cmpso.org/canmee/>.

- 1360 Campbell, Patricia F., and Matthew J. Griffin. 2017. "Reflections on the Promise and
1361 Complexity of Mathematics Coaching." *The Journal of Mathematical Behavior* 46: 163–
1362 176.
- 1363 Coggshall, Jane. 2012. *Toward the Effective Teaching of New College- and Career-
1364 Ready Standards: Making Professional Learning Systemic*. National Comprehensive
1365 Center for Teacher Quality. <https://eric.ed.gov/?id=ED532774>.
- 1366 Conference Board of the Mathematical Sciences. 2012. "The Mathematical Education of
1367 Teachers II." *Issues in Mathematics Education* 17. Providence, RI: American
1368 Mathematical Society.
- 1369 Darling, Felicia. 2019. *Teachin' It!: Breakout Moves that Break Down Barriers for
1370 Community College Students*. New York: Teachers College Press.
- 1371 Darling-Hammond, Linda. 2006. *Powerful Teacher Education: Lessons from Exemplary
1372 Programs*. Hoboken, NJ: John Wiley & Sons.
- 1373 Darling-Hammond, Linda, Maria E. Hyler, and Madelyn Gardner. 2017. *Effective
1374 Teacher Professional Development*. Palo Alto, CA: Learning Policy Institute.
- 1375 Desimone, Laura M., and Katie Pak. 2017. "Instructional Coaching as High-Quality
1376 Professional Development." *Theory Into Practice* 56(1): 3–12.
- 1377 DuFour, Richard. 2004. "What is a 'Professional Learning Community'?" *Educational
1378 Leadership* 61(8): 6–11.
- 1379 Ermeling, Bradley A., and Ronald Gallimore. 2013. "Learning to Be a Community:
1380 Schools Need Adaptable Models to Create Successful Programs." *Journal of Staff
1381 Development* 34(2): 42–45.
- 1382 Fixsen, Dean L., and Karen A. Blase. 2009. "Implementation: The Missing Link Between
1383 Research and Practice." *NIRN Implementation Brief #1*: 218–227.
- 1384 Fixsen, Dean L., Sandra Naoom, Karen Blase, Robert Friedman, and Frances Wallace.
1385 2005. *Implementation Research: A Synthesis of the Literature*. Tampa, FL: University of

- 1386 South Florida, Louis de la Parte Florida Mental Health Institute, The National
1387 Implementation Research Network (FMHI Publication #231).
- 1388 Fullan, Michael. 2015. *The New Meaning of Educational Change*. New York: Teachers
1389 College Press.
- 1390 Fulton, Kathleen, and Ted Britton. 2010. *STEM Teachers in Professional Learning
1391 Communities: A Knowledge Synthesis*. National Commission on Teaching and
1392 America's Future and WestEd.
- 1393 Gersten, Russell, Mary Jo Taylor, Tran D. Keys, Eric Rolfhus, and Rebecca Newman-
1394 Gonchar. 2014. "Summary of Research on the Effectiveness of Math Professional
1395 Development Approaches." Washington, DC: US Department of Education, Institute of
1396 Education Sciences. National Center for Education Evaluation and Regional Assistance,
1397 Regional Educational Laboratory Southeast.
1398 https://ies.ed.gov/ncee/edlabs/regions/southeast/pdf/REL_2014010.pdf.
- 1399 Gibbons, Lynsey. 2017. "Examining Mathematics Coaching Practices That Help
1400 Develop Schoolwide Professional Learning." In Maggie B. McGatha and Nicole R.
1401 Rigelman (eds.). *Elementary Mathematics Specialists: Developing, Refining, and
1402 Examining Programs That Support Mathematics Teaching and Learning*. Charlotte, NC:
1403 Information Age Publishing.
- 1404 Gibbons, Lynsey K., and Paul Cobb. 2017. "Focusing on Teacher Learning
1405 Opportunities to Identify Potentially Productive Coaching Activities." *Journal of Teacher
1406 Education* 68(4): 411–425.
- 1407 Heyder, Anke, Anne F. Weidinger, Andrei Cimpian, and Ricarda Steinmayr. 2020.
1408 "Teachers' Belief That Math Requires Innate Ability Predicts Lower Intrinsic Motivation
1409 Among Low-Achieving Students." *Learning and Instruction* 65: 101220.
- 1410 Hopkins, Megan, James P. Spillane, Paula Jakopovic, and Ruth M. Heaton. 2013.
1411 "Infrastructure Redesign and Instructional Reform in Mathematics: Formal Structure and
1412 Teacher Leadership." *The Elementary School Journal* 114(2): 200–224.

- 1413 Hord, Shirley M., and William A. Summers. 2008. *Leading Professional Learning*
1414 *Communities: Voices from Research and Practice*. Thousand Oaks, CA: Corwin.
- 1415 Horn, I.S. 2005. "Learning on the Job: A Situated Account of Teacher Learning in High
1416 School Mathematics Departments." *Cognition and Instruction* 23:2, 207–236
- 1417 Hull, Ted H., Don S. Balka, and Ruth H. Miles (Eds.). 2009. *A Guide to Mathematics*
1418 *Coaching: Processes for Increasing Student Achievement*. Thousand Oaks, CA: Corwin
1419 Press.
- 1420 Ishimaru, A.M., Barajas-López, F. and Bang, M. 2015. "Centering Family Knowledge to
1421 Develop Children's Empowered Mathematics Identities." *Journal of Family Diversity in*
1422 *Education* 1(4), 1–21.
- 1423 Kaser, Joyce, Susan E. Mundry, Katherine E. Stiles, and Susan Loucks-Horsley. (Eds.).
1424 2013. *Leading Every Day: Actions for Effective Leadership* (3rd ed.). Thousand Oaks,
1425 CA: Corwin Press.
- 1426 Kazemi, Elham, Lynsey Gibbons, Rebecca Lewis, Alison Fox, Allison Hintz, Megal
1427 Kelley-Petersen, Adrian Cunard, Kendra Lomax, Anita Lenges, and Ruth Balf. 2018.
1428 "Math Labs: Teachers, teacher educators, and school leaders learning together with
1429 and from their own students." *NCSM Journal of Mathematics Education Leadership*
1430 19(1): 23–36.
- 1431 Kouzes, James M., and Barry Z. Posner. 2003. *The Leadership Practices Inventory*
1432 *(LPI): Participant's Workbook* (Vol. 47). Hoboken, NJ: John Wiley & Sons.
- 1433 Lewis, Catherine, and Jacqueline Hurd. 2011. *Lesson Study Step by Step: How*
1434 *Teacher Learning Communities Improve Instruction*. Portsmouth, NH: Heinemann.
- 1435 Lewis, Catherine, and Rebecca Perry. 2017. "Lesson Study to Scale-up Research-
1436 Based Knowledge: A Randomized, Controlled Trial of Fractions Learning." *Journal for*
1437 *Research in Mathematics Education* 48(3), 262–300.
- 1438 Lieberman, Ann, and Lynne Miller. 2008. *Teachers in Professional Communities:*
1439 *Improving Teaching and Learning*. New York: Teachers College Press.

- 1440 Little, Judith W. 2006. *Professional Community and Professional Development in the*
1441 *Learning-Centered School*. Washington, DC: National Education Association.
- 1442 Loucks-Horsley, Susan, Katherine E. Stiles, Susan Mundry, Nancy Love, and Peter W.
1443 Hewson. 2010. *Designing Professional Development for Teachers of Science and*
1444 *Mathematics* (3rd ed.). Thousand Oaks, CA: Corwin Press.
- 1445 Loughran, John. 2019. "Pedagogical Reasoning: The Foundation of the Professional
1446 Knowledge of Teaching." *Teachers and Teaching: Theory and Practice* 25(5): 523–535.
- 1447 Louie, Nicole L. 2017. "The Culture of Exclusion in Mathematics Education and Its
1448 Persistence in Equity-Oriented Teaching." *Journal for Research in Mathematics*
1449 *Education* 48(5): 488–519.
- 1450 Louis, Karen S., Helen M. Marks, and Sharon Kruse. 1996. "Teachers' Professional
1451 Community in Restructuring Schools." *American Educational Research Journal* 33(4):
1452 757–798.
- 1453 Mapp, Karen L., and Eyal Bergman. 2019. Dual Capacity-Building Framework for
1454 Family-School Partnerships (Version 2).
- 1455 Martin, Danny B. 2019. "Equity, Inclusion, and Antiracism in Mathematics
1456 Education." *Race Ethnicity and Education* 22(4): 459–478.
- 1457 Martin, Danny B., Celia Rousseau Anderson, and Niral Shah. 2017. "Race and
1458 Mathematics Education." *Compendium for Research in Mathematics Education*, 607-
1459 636. National Council of Teachers of Mathematics.
- 1460 Mills College. n.d. The Lesson Study Group. About Lesson Study. Retrieved from
1461 <https://lessonresearch.net/about-lesson-study/what-is-lesson-study/>.
- 1462 Moschkovich, Judit. 2012. "Mathematics, the Common Core, and Language:
1463 Recommendations for Mathematics Instruction for ELs Aligned with the Common Core."
1464 *Commissioned papers on language and literacy issues in the Common Core State*
1465 *Standards and Next Generation Science Standards* 94: 17.

- 1466 National Council of Teachers of Mathematics (NCTM). n.d. *Professional Development*
1467 *Guides*. <https://www.nctm.org/pdguides/>.
- 1468 National Council of Teachers of Mathematics (NCTM). 2014. *Principles to Actions:*
1469 *Ensuring Mathematical Success for All*. NCTM. <https://www.nctm.org/PtA/>.
- 1470 National Research Council (NRC). 2010. *Preparing Teachers: Building Evidence for*
1471 *Sound Policy*. Washington, DC: The National Academies Press.
- 1472 Niebuhr, Deanna, Sean Arseo, and Araceli Simeón. “2021 Family Engagement in the
1473 Time of COVID-19: Lessons Learned From Learning Continuity Plans.” Berkeley, CA:
1474 Opportunity Institute.
- 1475 Penuel, William R., Christopher J. Harris, and Angela H. DeBarger. 2015.
1476 “Implementing the Next Generation Science Standards.” *Phi Delta Kappan* 96(6): 45–
1477 49.
- 1478 Perry, Rebecca, Catherine Lewis. 2009. “What Is Successful Adaptation of Lesson
1479 Study?” *Journal of Educational Change* 10(4), 365–391.
- 1480 Ramirez, Nora, and Sylvia Celedón-Pattichis. 2012. “Second Language Development
1481 and Implications for the Mathematics Classroom.” In *Beyond Good Teaching:*
1482 *Advancing Mathematics Education for ELLs*, 19–37. Reston, VA: National Council of
1483 Teachers of Mathematics.
- 1484 Senge, Peter M. 1990. “The Leader’s New Work: Building Learning Organizations.” MIT
1485 *Sloan Management Review* 32(1): 1–5.
- 1486 Sherin, Miriam G., Vicki R. Jacobs, and Randy A. Philipp. 2011. “Situating the Study of
1487 Teacher Noticing.” In Miram G. Sherin, Vicki R. Jacobs, and Randy A. Philipp (Eds.),
1488 *Mathematics Teacher Noticing: Seeing Through Teachers’ Eyes* (3–13). New York:
1489 Routledge.
- 1490 STEM Task Force. 2014. *Innovate: A Blueprint for Science, Technology, Engineering,*
1491 *and Mathematics in California Public Education*. Dublin, CA: Californians Dedicated to
1492 Education Foundation.

- 1493 Stipek, Deborah, Karen Givvin, Julie Salmon, and Valanne MacGyvers. 2001.
1494 “Teachers' Beliefs and Practices Related To Mathematics Instruction.” *Teaching and*
1495 *Teacher Education* 17(2): 213–226.
- 1496 Task Force on Educator Excellence. 2012. *Greatness by Design: Supporting*
1497 *Outstanding Teaching to Sustain a Golden State*. Sacramento: California Department of
1498 Education.
- 1499 TODOS: Mathematics for ALL. 2020. Black, Indigenous, and Latinx Parents as Partners
1500 in Mathematics Education. 1514 trayner.com/introduction-to-communities-of-practice/.
- 1515 Wenner, Julianne A., and Todd Campbell. 2017. “The Theoretical and Empirical Basis
1516 of Teacher Leadership: A Review of the Literature.” *Review of Educational Research*
1517 87(1): 134–171.

1518 York-Barr, Jennifer, and Karen Duke. 2004. "What Do We Know About Teacher
1519 Leadership? Findings from Two Decades of Scholarship." *Review of Educational*
1520 *Research* 74(3): 255–316.

1521 Yow, Jan A., and Christine Lotter. 2016. "Teacher Learning in a Mathematics and
1522 Science Inquiry Professional Development Program: First Steps in Emergent Teacher
1523 Leadership." *Professional Development in Education* 42(2): 325–351.

1524 **Chapter 11**

1525 Archambault, Leanna, and Kathryn Kennedy, K. 2018. "Teacher Preparation for K–12
1526 Online and Blended Learning." In K. Kennedy & R. Ferdig (Eds). *Handbook of K–12*
1527 *Blended and Online Learning Research* (pp. 221–246). Pittsburgh, PA: Carnegie Mellon
1528 University ETC Press.

1529 Association of Mathematics Teacher Educators. 2009. *Mathematics TPACK*
1530 *(Technological Pedagogical Content Knowledge) Framework*.

1531 <https://amte.net/sites/all/themes/amte/resources/MathTPACKFramework.pdf>.

1532 California Department of Education. 2021. *California Digital Learning Integration and*
1533 *Standards Guidance*. Retrieved from

1534 <https://www.cde.ca.gov/ci/cr/dl/dlintergstdsguidance.asp>.

1535 California Department of Education. n.d.a. "California Assessment of Student
1536 Performance and Progress (CAASPP) System." Retrieved from

1537 <https://www.cde.ca.gov/ta/tg/ca/>.

1538 California Department of Education. n.d.b. "Distance Learning Instruction Planning
1539 Guidance." Retrieved from <https://www.cde.ca.gov/ls/he/hn/guidanceplanning.asp>.

1540 California Department of Education. n.d.c. "Distance Learning Frequently Asked
1541 Questions." Retrieved from <https://www.cde.ca.gov/ci/cr/dl/distlearningfaqs.asp>.

1542 International Telecommunication Union (ITU). 2009. *Measuring the Information Society*
1543 *– The ICT Development Index*. Geneva, Switzerland: International Telecommunication

- 1544 Union. Retrieved from <https://www.itu.int/en/ITU->
1545 [D/Statistics/Documents/publications/mis2009/MIS2009_w5.pdf](https://www.itu.int/en/ITU-D/Statistics/Documents/publications/mis2009/MIS2009_w5.pdf).
- 1546 Koehler, Matthew, and Punya Mishra. 2009. "What Is Technological Pedagogical
1547 Content Knowledge (TPACK)?" *Contemporary Issues in Technology and Teacher*
1548 *Education* 9(1): 60–70.
- 1549 Kolb, Liz, and Victoria Carter. 2020. "Integrating Digital Technologies in Remote K–12
1550 Learning: Lessons for Higher Education Preparation Programs." Panel hosted by the
1551 International Society for Technology in Education, University of Michigan School of
1552 Education, & American Association of Colleges for Teacher Education. Retrieved from
1553 [https://drive.google.com/file/d/1T2F45QUO5i9KiM7oW5Z-](https://drive.google.com/file/d/1T2F45QUO5i9KiM7oW5Z-b1iXCZ3I72SV/view?usp=sharing)
1554 [b1iXCZ3I72SV/view?usp=sharing](https://drive.google.com/file/d/1T2F45QUO5i9KiM7oW5Z-b1iXCZ3I72SV/view?usp=sharing).
- 1555 Land the Plane. n.d. Retrieved from
1556 <https://teacher.desmos.com/activitybuilder/custom/582b81f4bf3030840aacf265>.
- 1557 Mishra, Punya, and Matthew J. Koehler. 2006. "Technological Pedagogical Content
1558 Knowledge: A Framework for Teacher Knowledge." *Teachers College Record* 108(6):
1559 1017–1054.
- 1560 National Council of Teachers of Mathematics. 2015. *Strategic Use of Technology in*
1561 *Teaching and Learning Mathematics*. Reston, VA.
- 1562 Policy Analysis for California Education. 2020. "Supporting Learning in the COVID-19
1563 Context: Research to Guide Distance and Blended Instruction." Retrieved from
1564 https://edpolicyinca.org/sites/default/files/2020-07/r_myung_jul20.pdf.
- 1565 Reys, Barbara, and Fran Arbaugh. 2001. "Clearing up the Confusion over Calculator
1566 Use in Grades K-5." *Teaching Children Mathematics* 8(2): 90–94.
- 1567 US Department of Education, Office of Planning, Evaluation, and Policy Development
1568 2010. *Evaluation of Evidence-Based Practices in Online Learning: A Meta-Analysis and*
1569 *Review of Online Learning Studies*, Washington, DC.

- 1570 Zheng, Binbin, Mark Warschauer, Jin Kyong Hwang, and Penelope Collins. 2014.
1571 “Laptop Use, Interactive Science Software, and Science Learning Among At-Risk
1572 Students.” *Journal of Science Education and Technology* 23(4): 591–603.
- 1573 Zinger, Doron, Tamara Tate, and Mark Warschauer. 2017. “Learning and Teaching with
1574 Technology: Technological Pedagogy and Teacher Practice.” In *The Sage Handbook of*
1575 *Research on Teacher Education*, edited by D.J. Clandinin and J. Husu. United
1576 Kingdom: SAGE Publications: 577–593.

1577 **Chapter 12**

- 1578 Aguirre, Julia, Karen Mayfield-Ingram, and Danny Martin. 2013. *The Impact of Identity in*
1579 *K–8 Mathematics: Rethinking Equity-Based Practices*. Reston, VA: National Council of
1580 Teachers of Mathematics.
- 1581 Banks, James. 2014. “Series Foreword.” In Na’ilah Nasir, Carlos Cabana, Barbara
1582 Shreve, Estelle Woodbury, and Nicole N. Louie (Eds.) *Mathematics for Equity: A*
1583 *Framework for Successful Practice*. New York: Teachers College Press.
- 1584 Beilock, Sian L. 2011. *Choke: What the Secrets of the Brain Reveal about Getting it*
1585 *Right When You Have To*. New York: Simon and Schuster, Free Press.
- 1586 Black, Paul, Christine Harrison, Clare Lee, Bethan Marshall, and Dylan William. 2002.
1587 “Working Inside the Black Box: Assessment for Learning in the Classroom.” London:
1588 Department of Education and Professional Studies, King’s College.
- 1589 Boaler, Jo, and Megan Staples. 2014. “Creating Mathematical Futures Through an
1590 Equitable Teaching Approach.” In Na’ilah Nasir, Carlos Cabana, Barbara Shreve,
1591 Estelle Woodbury, and Nicole N. Louie (Eds.). *Mathematics for Equity: A Framework for*
1592 *Successful Practice*. New York: Teachers College Press.
- 1593 Boaler, Jo. 2016. *Mathematical Mindsets: Unleashing Students’ Potential through*
1594 *Creative Math, Inspiring Messages and Innovative Teaching*. Chappaqua, NY: Jossey-
1595 Bass/Wiley.

1596 Boaler, Jo, Kristina Dance, and Estelle Woodbury. 2018. "From Performance to
1597 Learning: Assessing to Encourage Growth Mindsets." YouCubed.

1598 Cabana, Carlos, Barbara Shreve, Estelle Woodbury. 2014. "Working Toward an Equity
1599 Pedagogy." In Na'ilah Nasir, Carlos Cabana, Barbara Shreve, Estelle Woodbury, and
1600 Nicole N. Louie (Eds.). *Mathematics for equity: A framework for successful practice*.
1601 New York: Teachers College Press.

1602 California Department of Education. n.d. *California Assessment of Student Performance
1603 and Progress*. <https://caaspp.org/>.

1604 California Department of Education. 2014. *English Language Arts/English Language
1605 Development Framework*. Sacramento.

1606 CDE. 2021. *California Digital Learning Integration and Standards Guidance*. Retrieved
1607 from <https://www.cde.ca.gov/ci/cr/dl/dlintergstdsguidance.asp>.

1608 Carpenter, Thomas P., Elizabeth Fennema, Megan Loef Franke, Linda Levi, and Susan
1609 B. Empson. 2014. *Children's Mathematics: Cognitively Guided Instruction, Second
1610 Edition*. Portsmouth, NH: Heinemann.

1611 Cohen, Elizabeth G., and Rachel A. Lotan. 2014. *Designing Groupwork: Strategies for
1612 the Heterogeneous Classroom, Third Edition*. Teachers College Press.

1613 David Douglas School District. n.d. "Elementary Report Cards." Portland, Oregon.
1614 Retrieved from [https://www.ddouglas.k12.or.us/departments/curriculum-and-
1615 instruction/elementary-report-cards/](https://www.ddouglas.k12.or.us/departments/curriculum-and-instruction/elementary-report-cards/).

1616 DeSilva, Eran. 2020. "Students in the Center." In Gardner, Trevor (Ed). *Leading in the
1617 Belly of the Beast: School Leadership in a School System Designed to Fail* (95–112).
1618 Lanham, MD: Rowman and Littlefield.

1619 Dieckmann, Jack, and Kari Kokka. 2016. "SCALE Math Performance Assessment
1620 Rubric, Grades 3–12." Stanford Center for Assessment, Learning, and Equity (SCALE)
1621 for the George Lucas Educational Foundation's Learning Through Performance project.
1622 Retrieved from

- 1623 <https://performanceassessmentresourcebank.org/system/files/PARB%20CC%20BY%204.0%20SCALE%20Math%20PA%20Rubric%20Gr3-12%202016.pdf>.
- 1624
- 1625 Elewar, Maria C., and Lyn Corno. 1965. "A Factorial Experiment in Teachers' Written
1626 Feedback on Student Homework: Changing Teacher Behavior a Little Rather Than a
1627 Lot." *Journal of Educational Psychology* 77(2): 162–173.
- 1628 Engle, Randall W. 2002. "Working Memory Capacity as Executive Attention." *Current
1629 Directions in Psychological Science* 11:19–23.
- 1630 Feldman, Joe. 2019. *Grading for Equity, What It Is, Why it Matters, and How it Can
1631 Transform Schools and Classrooms*. Thousand Oaks, CA: Corwin Press.
- 1632 Gonzalez, Jennifer. 2015. "Meet the Single Point Rubric." Retrieved from
1633 <https://www.cultofpedagogy.com/single-point-rubric/>.
- 1634 Gough, Jill, and Jennifer Wilson. 2014. "Math Practices Learning Progressions
1635 #LL2LU." Retrieved from <https://jplgough.blog/ll2lu-learning-progressions-smp/> and
1636 <https://easingthehurrysyndrome.wordpress.com/math-practices-learning-progressions-ll2lu/>.
- 1637
- 1638 Henry, Valerie, and Richard Brown. 2008. First Grade Basic Facts: An Investigation Into
1639 Teaching and Learning of an Accelerated, High-Demand Memorization Standard.
1640 *Journal for Research in Mathematics Education* 39:2, 153-183.
- 1641 Heuer, Stephen. 2008. "Math: High Dive Unit Problem." Retrieved from
1642 <https://stephanheuer.wordpress.com/2008/05/09/math-high-dive-unit-problem/>.
- 1643 Iamarino, Danielle L. 2014. "The Benefits of Standards-Based Grading: A Critical
1644 Evaluation of Modern Grading Practices." *Current Issues in Education* 17(2).
- 1645 Illinois Standards Based Reporting (ISBR). n.d. "Sample Report Cards." Retrieved from
1646 <http://www.isbestandardsbasedreporting.com/report-card-examples.html>.

- 1647 LaMar, Tanya, Miriam Leshin, and Jo Boaler. 2020. "The Derailing Impact of Content
1648 Standards—an Equity Focused District Held Back By Narrow Mathematics." *International*
1649 *Journal of Educational Research Open* 1(2020): 100015.
- 1650 Lambert, Rachel. 2020." Increasing Access to Universally Designed Mathematics
1651 Classrooms." Stanford, CA: PACE. Retrieved from
1652 [https://edpolicyinca.org/publications/increasing-access-universally-designed-](https://edpolicyinca.org/publications/increasing-access-universally-designed-mathematics-classrooms)
1653 [mathematics-classrooms](https://edpolicyinca.org/publications/increasing-access-universally-designed-mathematics-classrooms).
- 1654 Linquanti, Robert. 2014. "Supporting Formative Assessment for Deeper Learning: A
1655 Primer for Policymakers." Council of the Chief State School Officers.
- 1656 Loma Prieta Joint Union School District. n.d. "Loma Prieta Elementary School Report
1657 Card."
- 1658 MAC & CAASPP. 2015. Technical Report, Years 2014 and 2015, Morgan Hill, CA:
1659 Educational Data Systems.
- 1660 Meyer, Anne, David H. Rose, and David T. Gordon. 2014. *Universal Design for*
1661 *Learning: Theory and Practice*. CAST Professional Publishing.
- 1662 National Research Council and Mathematics Learning Study Committee. 2001. Adding
1663 It Up: Helping Children Learn Mathematics. National Academies Press.
- 1664 Prekinders. n.d. "Pre–K Math Portfolios." Retrieved from
1665 <https://www.prekinders.com/math-portfolios/>.
- 1666 Ramirez, Gerardo, Elizabeth A. Gunderson, Susan C. Levine, and Sian L. Beilock.
1667 2013. "Math Anxiety, Working Memory and Math Achievement in Early Elementary
1668 School." *Journal of Cognition and Development* 14 (2): 187–202.
- 1669 Regents of the University of California. 2021. "Understanding the Formative
1670 Assessment Process." Retrieved from
1671 <https://portal.smarterbalanced.org/library/en/formative-assessment-process.pdf>.
- 1672 Rhode Island Department of Education. n.d. "I Can Statements."

1673 Selbach-Allen, Megan E., Sarah J. Greenwald, Amy E. Ksir, and Jill E. Thomley. 2020.
1674 “Raising the Bar with Standards-Based Grading.” *PRIMUS* 30(8-10): 1110–1126.

1675 Stanford Center for Assessment, Learning, & Equity (SCALE), Envision Schools, and
1676 New Tech Network. 2013. “Math Performance Assessment Rubric (Grades 9-12).”
1677 Retrieved from
1678 <https://performanceassessmentresourcebank.org/system/files/PARB%20CC%20BY%204.0%20SCALE%20Math%20Performance%20Assessment%20Rubric%20Gr%209-12%202013.pdf>.
1680

1681 Stassen, Martha, Kathryn Doherty, and Mya Poe. 2001. “Program-Based Review and
1682 Assessment.” Office of Academic Planning and Assessment, University of
1683 Massachusetts Amherst.
1684 http://www.umass.edu/oapa/sites/default/files/pdf/handbooks/program_assessment_handbook.pdf.
1685

1686 Swan, Gerry M., Thomas R. Guskey, and Lee Ann Jung. 2014. Parents’ and teachers’
1687 perceptions of standards-based and traditional report cards. *Education Assessment, Evaluation and Accountability* 26, 289-299.
1688

1689 Tools for Teachers. n.d. <https://smartertoolsforteachers.org/>.

1690 Townsley, Matt, and Tom Buckmiller. 2016. “What Does the Research Say about
1691 Standards-Based Grading?” [Blog post, January 14, 2016.] Retrieved from
1692 <http://mctownsley.net/standards-based-grading-research/>.

1693 Tsu, Ruth, Rachel Lotan, and Ruth Cossey. 2014. “Building a Vision for Equitable
1694 Learning.” In Na’ilah Nasir, Carlos Cabana, Barbara Shreve, Estelle Woodbury, and
1695 Nicole N. Louie (Eds.). *Mathematics for Equity: A Framework for Successful Practice*.
1696 New York: Teachers College Press.

1697 Zwiers, Jeff, Jack Dieckmann, Sara Rutherford-Quach, Vinci Daro, Renae Skarin,
1698 Steven Weiss, and James Malamut. 2017. “Principles for the Design of Mathematics
1699 Curricula: Promoting Language and Content Development.” Retrieved from Stanford

1700 University, UL/SCALE website: <http://ell.stanford.edu/content/mathematics-resources->
1701 [additional-resources](http://ell.stanford.edu/content/mathematics-resources-additional-resources).

1702 **Chapter 13**

1703 California Department of Education. 2013. *Standards for Evaluating Instructional*
1704 *Materials for Social Content, 2013 Edition*. Social Content Review.

1705 <https://www.cde.ca.gov/ci/cr/cf/lc.asp>.

1706 CDE. 2015. *Guidelines for Piloting Instructional Materials*. Instructional Materials
1707 Adoptions. <https://www.cde.ca.gov/ci/cr/cf/imagen.asp>.

1708 CDE. 2020. *Improving Education for Multilingual and English Learner Students:*
1709 *Research to Practice*. <https://www.cde.ca.gov/sp/el/er/documents/mleeducation.pdf>.

1710 CDE. 2021. *California Digital Learning Integration and Standards Guidance*.

1711 <https://www.cde.ca.gov/ci/cr/dl/dlintergstdsguidance.asp>.

1712 CDE. n.d.a. Approved Social Content Review Search.

1713 <https://www.cde.ca.gov/ci/cr/cf/ap2/search.aspx>.

1714 CDE. n.d.b. Clearinghouse for Specialized Media & Technology.

1715 <https://www.cde.ca.gov/re/pn/sm/>.

1716 Moschkovich, Judit. 2012. "Mathematics, the Common Core Standards, and Language:
1717 Mathematics Instruction for ELS Aligned with the Common Core." North American
1718 Chapter of the International Group for the Psychology of Mathematics Education, Paper
1719 presented at the Annual Meeting of the North American Chapter of the International
1720 Group for the Psychology of Mathematics Education (34th, Kalamazoo, MI, Nov –4,
1721 2012).

1722 National Council of Teachers of Mathematics. 2009. *Focus in High School Mathematics:*
1723 *Reasoning and Sense Making*. Reston, VA: National Council of Teachers of
1724 Mathematics.

- 1725 National Research Council. 2001. *Adding It All Up: How Children Learn Mathematics*.
1726 Washington, DC: National Academy Press.
- 1727 National Governors Association Center and Council of Chief State School Officers.
1728 2013. *High School Publishers' Criteria for the Common Core State Standards for*
1729 *Mathematics*. Core Standards. Washington, D.C.: National Governors Association
1730 Center and Council of Chief State School Officers.
- 1731 **Chapter 14**
- 1732 Bargagliotti, Anna, Christine Franklin, Pip Arnold, Rob Gould, Sheri Johnson, Leticia
1733 Perez, and Denise Spangler. 2020. "Pre-K-12 Guidelines for Assessment and
1734 Instruction in Statistics Education II (GAISE II): A Framework for Statistics and Data
1735 Science Education." American Statistical Association.
- 1736 California Department of Education. 2012. *California English Language Development*
1737 *Standards Kindergarten Through Grade 12*.
1738 <https://www.cde.ca.gov/sp/el/er/documents/eldstndspublication14.pdf>.
- 1739 Coalition for English Learner Equity. n.d. Reimagining a Better System for ELs.
1740 <https://www.elequity.org/>.
- 1741 Common Core Standards Writing Team. 2022. Progressions for the Common Core
1742 State Standards for Mathematics (February 28, 2023). Tucson, AZ: Institute for
1743 Mathematics and Education, University of Arizona. [https://mathematicalmusings.org/wp-](https://mathematicalmusings.org/wp-content/uploads/2023/02/Progressions.pdf)
1744 [content/uploads/2023/02/Progressions.pdf](https://mathematicalmusings.org/wp-content/uploads/2023/02/Progressions.pdf).
- 1745 Ellenberg, Jordan. 2014. *How Not To Be Wrong: The Power of Mathematical Thinking*.
1746 London: Penguin.
- 1747 Gay, Geneva. 2002. "Preparing for Culturally Responsive Teaching." *Journal of Teacher*
1748 *Education* 53(2): 106–116.
- 1749 Gay, Geneva. 2018. *Culturally Responsive Teaching: Theory, Research, and Practice*.
1750 New York: Teachers College Press.

- 1751 Gutiérrez, Rochelle. 2012. "Context Matters: How Should We Conceptualize Equity in
1752 Mathematics Education?" In Beth Herbel-Eisenmann, Jeffrey Choppin, David Wagner,
1753 and David Pimm (Eds). *Equity in Discourse for Mathematics Education* (17–33).
1754 Dordrecht: Springer.
- 1755 Ladson-Billings, Gloria. 1994. *The Dreamkeepers: Successful Teachers of African-*
1756 *American Children*. San Francisco, CA: Josey-Bass.
- 1757 Ladson-Billings, Gloria. 1995a. "Toward a Theory of Culturally Relevant Pedagogy."
1758 *American Educational Research Journal* 32(3): 465-491.
- 1759 Ladson-Billings, Gloria. 1995b. "But That's Just Good Teaching! The Case for Culturally
1760 Relevant Pedagogy." *Theory into Practice* 34(3): 159–165.
- 1761 Paris, Django. 2012. "Culturally Sustaining Pedagogy: A Needed Change in Stance,
1762 Terminology, and Practice." *Educational Researcher* 41(3): 93–97.
- 1763 Webb, Noreen M., Megan L. Franke, Marsha Ing, Jacqueline Wong, Cecilia H.
1764 Fernandez, Nami Shin, and Angela C. Turrou. 2014. "Engaging with Others'
1765 Mathematical Ideas: Interrelationships Among Student Participation, Teachers'
1766 Instructional Practices, and Learning." *International Journal of Educational Research* 63:
1767 79–93.
- 1768 **Appendix A**
- 1769 Partnership for Assessment of Readiness for College and Careers (PARCC). 2012.
1770 PARCC Model Content Frameworks for Mathematics Grades 3–11.
- 1771 **Appendix C**
- 1772 Berry, Robert Q, III, Basil M. Conway, IV, Brian R. Lawler, and John W. Staley. 2020.
1773 *High School Mathematics Lessons to Explore, Understand, and Respond to Social*
1774 *Injustice*. Thousand Oaks, CA: Corwin Press.
- 1775 Boaler, Jo, Jen Munson, and Cathy Williams. 2018. "What is Mathematical Beauty?
1776 Teaching through Big Ideas and Connections." Youcubed.

1777 Cabana, Carlos, Barbara Shreve, and Estelle Woodbury. 2014. "Working Toward an
1778 Equity Pedagogy." In Na'ilah Nasir, Carlos Cabana, Barbara Shreve, Estelle Woodbury,
1779 and Nicole N. Louie (Eds.) *Mathematics for Equity: A Framework for Successful*
1780 *Practice*. New York: Teachers College Press.

1781 California Department of Education. 2014a. English Language Arts/English Language
1782 Development Framework for California Public Schools: Kindergarten Through Grade
1783 Twelve. Sacramento: California Department of Education.

1784 CDE. 2014b. California English Language Development Standards, Kindergarten
1785 Through Grade 12. Sacramento: California Department of Education.

1786 CDE. 2018. *Science Framework for California Public Schools: Kindergarten through*
1787 *Grade Twelve*. Sacramento.

1788 California Education and the Environment Initiative, n.d. "Climate Change in the Golden
1789 State." Retrieved from <https://californiaeei.org/media/1329/greenhouse-cc.pdf>.

1790 CAST. 2018. "Universal Design for Learning Guidelines version 2.2." Retrieved from
1791 <https://udlguidelines.cast.org>.

1792 Centers for Disease Control and Prevention. 2017. New CDC report: More than 100
1793 million Americans have diabetes or prediabetes – infographic.
1794 <https://www.cdc.gov/media/releases/2017/p0718-diabetes-report-infographic.html>.

1795 Chapin, S., O'Connor, C. & Anderson, N. (2013). *Talk Moves: A Teacher's Guide for*
1796 *Using Classroom Discussions in Math, 3rd Edition*. Chicago, IL: Math Solutions.

1797 Cohen, Elizabeth, and Rachel A. Lotan. 2014. *Designing Groupwork: Strategies for the*
1798 *Heterogeneous Classroom, Third Edition*. New York: Teachers College Press.

1799 Deslauriers, Louis, Logan S. McCarty, Kelly Miller, Kristina Callaghan, and Greg Kestin.
1800 2019. "Measuring Actual Learning Versus Feeling of Learning in Response to Being
1801 Actively Engaged in the Classroom." *Proceedings of the National Academy of Sciences*
1802 *of the United States of America* 116(39): 19251–19257.

1803 Diez-Palomar, Javier, and Carlos Lopez Leiva. 2018. "Rethinking the Teaching and
1804 Learning of Latina/Latino Students to Promote a Multicultural Mathematics Education."
1805 In Christine Clark, Amanda Vandehei, Kenneth Fasching-Varner, and Zaid Haddad.
1806 (Eds). *Multicultural Curriculum Transformation in Science, Technology, Engineering,
1807 And Mathematics*. Lanham, MD: Lexington Books.

1808 Gargroetzi, Emma. 2020. *Becoming a Math Student in an American High School: An
1809 Ethnography of Math, Identity, and Imagined Futures*. Unpublished doctoral dissertation.

1810 HUD User. n.d. *Office of Policy Development and Research (PD&R)*. Retrieved from
1811 <http://huduser.gov>.

1812 Illustrative Mathematics. n.d. *Comparing Money Raised*.
1813 <http://tasks.illustrativemathematics.org/content-standards/4/OA/A/2/tasks/263>.

1814 Illustrative Mathematics. 2016a. "Thousands and Millions of Fourth Graders." Illustrative
1815 Mathematics. <http://tasks.illustrativemathematics.org/content-standards/4/OA/A/1/tasks/1808>.

1816

1817 Illustrative Mathematics. 2016b. "Rectangle Perimeter 2." Retrieved from
1818 <https://www.illustrativemathematics.org/content-standards/6/EE/A/4/tasks/461>.

1819 Inside Mathematics. n.d. "Formative Re-Engaging Lessons." University of Texas at
1820 Austin, Charles A. Dana Center. Retrieved October 9, 2020 from
1821 <https://www.insidemathematics.org/classroom-videos/formative-re-engaging-lessons>.

1822 Langer-Osuna, Jennifer, Mary Trinkle, and Faith Kwon. 2019. *Becoming Collaborative:
1823 Examining the Development of Early Collaborative Problem-Solving Capacities*.
1824 National Council of Teachers of Mathematics Annual Meeting, April 6, 2019, San Diego,
1825 CA.

1826 Lieberman, Gerald, Director, State Education and Environment Roundtable, in
1827 Collaboration with Kyndall Brown, Ph.D., Executive Director, California Math Subject
1828 Matter Project. Public Comment recommendations to Mathematics Framework,
1829 November, 2020.

- 1830 Lindsey, Rebecca. 2023. "Climate Change: Atmospheric Carbon Dioxide." National
1831 Oceanic and Atmospheric Administration. Retrieved from [https://www.climate.gov/news-](https://www.climate.gov/news-features/understanding-climate/climate-change-atmospheric-carbon-dioxide)
1832 [features/understanding-climate/climate-change-atmospheric-carbon-dioxide](https://www.climate.gov/news-features/understanding-climate/climate-change-atmospheric-carbon-dioxide).
- 1833 Math Talks. n.d. "Are There More Inches in a Mile or Seconds in a Day?"
- 1834 Munson, Jen. 2018a. *Responding to Student Thinking in the Moment: Examining*
1835 *Conferring Practices and Teacher Learning in the Elementary Mathematics Classroom*.
1836 Doctoral Dissertation. Stanford University.
- 1837 Munson, Jen. 2018b. *In the Moment: Conferring in the Elementary Math Classroom*.
1838 Portsmouth, NH: Heinemann.
- 1839 National Low Income Housing Coalition. 2015. Annual Report 2015. Washington, DC.
- 1840 San Francisco Unified School District. 2015. SFUSD Signature Strategy #2: Three Read
1841 Protocol. Sfusdmath.org.
- 1842 San Francisco Unified School District Mathematics Department. 2015. Re-
1843 engagement. Retrieved from San Francisco Unified School District website:
1844 <http://www.sfusdmath.org/reengagement.html>.
- 1845 Smith, Margaret S., and Mary Kay Stein. 2011, 2018. *5 Practices for Orchestrating*
1846 *Productive Mathematics Discussions*. Reston, Virginia: National Council of Teachers of
1847 Mathematics.
- 1848 Understanding Language and Stanford Center for Assessment, Learning and Equity
1849 (SCALE). 2017.
- 1850 University of Nottingham. 2016. "Maximizing Area: Gold Rush." Retrieved from
1851 <https://www.map.mathshell.org/lessons.php?unit=7300&collection=8>.
- 1852 Van de Walle, John A., and Sandra Folk. 2005. *Elementary and Middle School*
1853 *Mathematics: Teaching Developmentally*. Toronto: Pearson Education Canada.
- 1854 Van de Walle, John, Karen S. Karp, and Jennifer M. Bay-Williams. 2012. *Elementary*
1855 *and Middle School Mathematics: Teaching Developmentally* (8th ed.). Boston: Allyn and

- 1856 Bacon.
- 1857 Wei, Gina, and Emma Gargroetzi. 2019. "Opportunities to Identify: Teaching for Dignity
1858 in Math." Paper presented at the 62nd annual conference of the California Math
1859 Council, Northern Section (December 7, 2019). Asilomar, CA.
- 1860 Youcubed. n.d.a *Data Science Online Course Lessons*. Retrieved from
1861 <https://www.youcubed.org/resources/data-science-online-course-lessons/>.
- 1862 Youcubed. n.d.b. *Youcubed Sponge Art Transformations (K-10) [video]*. Retrieved from
1863 <https://www.youcubed.org/resources/sponge-art-transformations-k-10-video/>.
- 1864 Zwiers, Jeff. 2018. "Developing Reasoning and its Language in Secondary
1865 Mathematics Instruction." *Soleado—Promising Practices from the Field* 11(1): 1–11.

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