



Colegio de San Juan de Letran
Dominican Avenue, Abucay, Bataan
Library and Media Services

RESEARCH GUIDE: MATHEMATICS 1

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RESEARCH GUIDES

MATHEMATICS 1

I. SCOPE NOTE

Learners will exhibit understanding and appreciation of key concepts and skills involving numbers and number sense (whole numbers up to 100, ordinal numbers up to 10th, money up to PhP100, addition and subtraction of whole numbers, and fractions $\frac{1}{2}$ and $\frac{1}{4}$); geometry (2- and 3-dimensional objects); patterns and algebra (continuous and repeating patterns and number sentences); measurement (time, non-standard measures of length, mass, and capacity); and statistics and probability (tables, pictographs, and outcomes) as applied - using appropriate technology - in critical thinking, problem solving, reasoning, communicating, making connections, representations, and decisions in real life.

II. SEARCH AIDS (BT: Broader Term, RT: Related Term, NT: Narrow Term)

BT:

- Mathematics

RT:

- Whole Numbers
- Ordinal Numbers
- Money
- Addition
- Subtraction
- Figures
- Patterns
- Mathematical Sentences
- Time of the Day
- Measurement
- Length
- Mass
- Capacity
- Pictograph
- Counting
- Number in Words and Symbols
- Place Value
- Symmetry
- Shapes
- Fraction

NT:

- Numbers
- Philippine Coins and Bills
- Grouping in Addition/Subtraction
- Vertical Addition
- Problem Solving
- Subtraction of Whole Numbers
- Telling Time
- Using Calendar
- Measurement Capacity, Height, Length

III. INFORMATION RESOURCES

A. LIBRARY RESOURCES

Note: For the appropriate access credentials, please contact the Letran Bataan Library

➤ **E-JOURNALS**

- Journal of Educational Psychology.
https://www.proquest.com/central/publication/publications_42319
- Developmental Psychology.
https://www.proquest.com/central/publication/publications_35458
- Journal for Research in Mathematics Education.
https://www.proquest.com/central/publication/publications_21451
- The Mathematics Enthusiast.
https://www.proquest.com/central/publication/publications_2030106
- Gazette – Ontario Association for Mathematics.
https://search.proquest.com/central/publication/publications_43656
- Asian Journal of Instruction.
https://search.proquest.com/central/publication/publications_2045595
- School Science & Mathematics.
https://search.proquest.com/central/publication/publications_41443
- Teaching Children Mathematics.
https://search.proquest.com/central/publication/publications_32876
- The Arithmetic Teacher.
https://search.proquest.com/central/publication/publications_815

➤ **E-THESES**

- Niboro, R. D. (2015). An examination of the difference in reading and mathematics achievement between black and white students in
10RW1S34RfeSDcfkexd09rT3st1RW1S34RfeSDcfkexd09rT3,
30RW1S34RfeSDcfkexd09rT3 rd1RW1S34RfeSDcfkexd09rT3, and

50RW1S34RfeSDcfkexd09rT3th1RW1S34RfeSDcfkexd09rT3 grades and its relationship to family, school, and classroom variables (Order No. 3713610). Available from ProQuest Central. (1699098710). Retrieved from <https://www.proquest.com/dissertations-theses/examination-difference-reading-mathematics/docview/1699098710/se-2?accountid=190548>

- Bae, J. (2014). Exploring teacher implementation of reform-oriented mathematics instruction using the early childhood longitudinal study-kindergarten class of 1998-99 (Order No. 3716802). Available from ProQuest Central. (1710041920). Retrieved from <https://www.proquest.com/dissertations-theses/exploring-teacher-implementation-reform-oriented/docview/1710041920/se-2?accountid=190548>
- Crane, C. C. (2010). Mathematics performance in public and catholic elementary schools: Explaining the disparity (Order No. 3455658). Available from ProQuest Central. (868724683). Retrieved from <https://www.proquest.com/dissertations-theses/mathematics-performance-public-catholic/docview/868724683/se-2?accountid=190548>
- Greenberg, S. (2019). The impact of nonacademic skill sets: Associations between approaches to learning (ATLs) and academic trajectories in grades 1-8 using reading and mathematics data from the early childhood longitudinal study-kindergarten (Order No. 13865407). Available from ProQuest Central. (2232014757). Retrieved from <https://www.proquest.com/dissertations-theses/impact-nonacademic-skill-sets-associations/docview/2232014757/se-2?accountid=190548>
- Minnich, S. D. (2008). How does the implementation of a reform -based mathematics program, 0RW1S34RfeSDcfkexd09rT2everyday mathematics,1RW1S34RfeSDcfkexd09rT2 change teachers' beliefs and perceived pedagogy of mathematics instruction?(Order No. 3326356). Available from ProQuest Central. (304472622). Retrieved from <https://www.proquest.com/dissertations-theses/how-does-implementation-reform-based-mathematics/docview/304472622/se-2?accountid=190548>
- Martinez, R. (2016). An investigation of the impact of grade retention and social promotion on mathematics achievement in texas: 2005-2012 (Order No. 10253487). Available from ProQuest Central. (1867573952). Retrieved from <https://www.proquest.com/dissertations-theses/investigation-impact-grade-retention-social/docview/1867573952/se-2?accountid=190548>
- Labrecque, R. (2015). How prepared are pre-service early childhood teachers to integrate mathematics software in the classroom? an exploratory study on the implementation, evaluation, and search of mathematics software for the early grades (Order No. 3721509). Available from ProQuest Central. (1721391382). Retrieved from <https://www.proquest.com/dissertations-theses/how-prepared-are-pre-service-early-childhood/docview/1721391382/se-2?accountid=190548>
- Ralston, N. C. (2013). The development and validation of a diagnostic assessment of algebraic thinking skills for students in the elementary grades (Order No. 3588844). Available from ProQuest Central. (1428435529). Retrieved from <https://www.proquest.com/dissertations-theses/development-validation-diagnostic-assessment/docview/1428435529/se-2?accountid=190548>

- Mernacaj, M. (2011). The reforms in mathematics education for grades 1 through 12 in albania from 1945 to 2000 (Order No. 3451520). Available from ProQuest Central. (862875768). Retrieved from <https://search.proquest.com/docview/862875768?accountid=190548>
- Roper, J. C. (2008). The effects of practice and working-practice homework on the math achievement of elementary school students showing varying levels of math performance (Order No. 3483997). Available from ProQuest Central. (904395002). Retrieved from <https://search.proquest.com/docview/904395002?accountid=190548>
- Drefs, M. A. (2006). Assessment of number concepts in kindergarten and grade one students (Order No. NR38017). Available from ProQuest Central. (305357468). Retrieved from <https://search.proquest.com/docview/305357468?accountid=190548>
- Sampson, C. A., Sukow, A. L., & Pierrie, V. (2016). Effects of Singapore mathematics on students and teachers (Order No. 10245162). Available from ProQuest Central. (1861663197). Retrieved from <https://search.proquest.com/docview/1861663197?accountid=190548>

B. OPEN ACCESS

➤ FREE E-BOOKS

- (2006). Mathematics in the Primary Grades: Teaching and Learning. Math Division Madison Metropolitan School District <https://www.pdfdrive.com/learningmathematicsin-the-primary-grades-d18897588.html>
- Mathematics in Primary Education: Learning of mathematics by young children. <https://www.pdfdrive.com/mathematics-in-primary-education-learning-of-mathematics-by-young-children-e33477217.html>
- Meg, Glenn. (2003). The Everything Kids Math Puzzle Books. Massachusetts: Adams Media Corporation. <https://www.pdfdrive.com/the-everything-kids-math-puzzles-book-e185969323.html>

➤ FREE E-JOURNALS

- International Journal for Mathematics Teaching and Learning. <https://www.cimt.org.uk/journal/>
- Mathematics Education Research Journal. <https://link.springer.com/journal/13394/online-first>
- Math Journals. <https://www.k-5mathteachingresources.com/math-journals.html>
- Journal for Research in Mathematics Education (J RES MATH EDUC). <https://www.researchgate.net/journal/Journal-for-Research-in-Mathematics-Education-0021-8251>
- International Electronic Journal of Mathematics Education. <https://www.iejme.com/>
- Journal for Research in Mathematics Education. <https://www.nctm.org/publications/journal-for-research-in-mathematics-education/>
- Mathematics Teacher. <https://www.nctm.org/publications/mathematics-teacher/>

- Mathematics Teacher Educator. <https://www.nctm.org/publications/mathematicsteacher-educator/>
- Mathematical Thinking and Learning. <https://www.tandfonline.com/loi/hmtl20#.V3FiOgJsxNd>
- Educational Studies in Mathematics. <https://www.springer.com/journal/10649>

➤ FREE E-THESES

- Grehan, M. (2012). Critical Events in Students' Engagement with Mathematics. (Thesis). RIAN. Retrieved from <http://eprints.maynoothuniversity.ie/4474/>
- Spillman, S. A. (2014). Is More Always Better: Comparing the Effects of Single and Multiple Learning Channels on Academic Performance. (Thesis). University of South Florida. Retrieved from <https://scholarcommons.usf.edu/etd/5435>
- Strother, Scott A., 1. (2011). Algebra knowledge in early elementary school supporting later mathematics ability. (Doctoral Dissertation). University of Louisville. Retrieved from 10.18297/etd/1394 ; <https://ir.library.louisville.edu/etd/1394>
- Cawley, P. (2017). Differentiated Instruction for 1st Grade Advanced Learners in Mathematics. (Masters Thesis). Dominican University of California. Retrieved from <https://scholar.dominican.edu/masters-theses/284>
- Mancl, D. B. (2011). Investigating the effects of a combined problem-solving strategy for students with learning difficulties in mathematics. (Doctoral Dissertation). University of Nevada – Las Vegas. Retrieved from <https://digitalscholarship.unlv.edu/thesesdissertations/927>
- Haskins, M. (2018). Improving Mathematical Skill: The Perceptions of Rural Minnesota Mathematics Educators. (Thesis). Minnesota State University – Mankato. Retrieved from <https://cornerstone.lib.mnsu.edu/etds/774>
- Dryndas, K. (2016). The effects of homework Derby on the completion and accuracy of mathematics homework of 1st grade students . (Masters Thesis). SUNY College at Fredonia. Retrieved from <http://hdl.handle.net/1951/70382>
- Bowen, R. C. (2010). Effects of pre-kindergarten music instruction on kindergarten reading and math scores for low SES ELL students. (Thesis). Trevecca Nazarene University. Retrieved from <https://www.proquest.com/dissertations-theses/effects-pre-kindergarten-music-instruction-on/docview/1370975201/se-2?accountid=190548>
- Franklin, M. A. (2013). Kindergarten Teachers' Perceptions of Barriers English Language Learners Face in Mathematics. (Thesis). Walden University. Retrieved from <https://www.proquest.com/dissertations-theses/kindergarten-teachers-perceptions-barriers/docview/1312336923/se-2?accountid=190548>
- Kiss, A. (2018). Investigating Young Children's Attitudes toward Mathematics: Improved Measurement and the Relation to Achievement. (Doctoral Dissertation). University of Minnesota. Retrieved from <http://hdl.handle.net/11299/199057>
- Smith, C. (2010). Mathematics in early childhood| an investigation of mathematics skills in preschool and kindergarten students. (Thesis). Alfred University. Retrieved from <https://www.proquest.com/dissertations-theses/mathematics-early-childhood-investigation-skills/docview/205456190/se-2?accountid=190548>

- O'Neill, A. M. (2012). Mathe-dramatical play tasks kit: integrating socio dramatic play and mathematical problem solving in the kindergarten curriculum. (Master's Thesis). California State University–Northridge. Retrieved from <http://hdl.handle.net/10211.2/1083>

C. PROFESSIONAL ORGANIZATIONS

- National Council of Teacher for Mathematics. <https://www.nctm.org/>
- Consortium for Mathematics and its Application. <https://www.comap.com/>
- Technical Education Research Center. <https://www.terc.edu/>
- Education Development Center. <https://www.edc.org/>
- American Mathematical Society. <https://www.ams.org/home/page>
- Mathematical Association of America. <https://www.maa.org/>

D. OTHER RELATED WEB PORTALS

- Splash Learns. <https://www.splashlearn.com/math-games-for-1st-graders>
- First Grade Math Games. <https://www.education.com/games/first-grade/math/>
- Math Playground. https://www.mathplayground.com/grade_1_games.html
- Math Games. <https://www.mathgames.com/grade1>
- Khan Academy. <https://www.khanacademy.org/math/cc-1st-grade-math>
- Math Blaster. <http://www.mathblaster.com/>
- Multiplication. <https://www.multiplication.com/>
- Hooda Math. <http://www.hoodamath.com/>
- Manga High. <https://www.mangahigh.com/en-us/>
- Manga Time. <http://www.mathgametime.com/>
- Math Playground. <https://www.mathplayground.com/>
- Cool Math Games. <https://www.coolmathgames.com/>
- Code Monkey. <https://www.codemonkey.com/covid-19/>

E. RELATED ONLINE RESOURCES FOR TEACHERS

- Mc Graw Hill. <https://www.mheducation.com/prek-12/program/microsites/MKTSP-GAB02M0.html>
- Art Problem Solving. <https://artofproblemsolving.com/online>
- Corbett Maths. <https://corbettmaths.com/>
- Dragon Box. <https://dragonbox.com/>
- EdGenuity. <https://www.edgenuity.com/>
- First in Math. <https://www.firstinmath.com/>
- Freckle Education. <https://www.freckle.com/>
- Greg Tang Math. <http://gregtangmath.com/>
- Illuminations. <https://illuminations.nctm.org/>
- Istation. <https://www.istation.com/>
- IXL. <https://www.ixl.com/math/>
- Prodigy Game. <https://www.prodigygame.com/>

- Common Core Sheets. <https://www.commoncoresheets.com/>
- Edulastic. <https://edulastic.com/>
- Mashup Math. <https://www.mashupmath.com/>
- Math Aids. <https://www.math-aids.com/>
- Mathsbot. <https://mathsbot.com/>
- Teacher Made. <https://teachermade.com/>
- Corbett Maths. <https://corbettmaths.com/>
- Cuethink. <https://www.cuethink.com/>
- Dream Box. <https://www.dreambox.com/>
- Freckle. <https://www.freckle.com/>
- Greg Tang Math. <https://gregtangmath.com/>
- Illuminations. <https://illuminations.nctm.org/>
- Khan Academy. <https://www.khanacademy.org/>
- Learn Zillion. <https://learnzillion.com/p/>
- Moby Max. <https://www.mobymax.com/>
- Prodigy Game. <https://www.prodigygame.com/main-en/>
- Splash Learn. <https://www.splashlearn.com/>
- Woot Math. <https://ed.wootmath.com/adaptive-learning>
- Curriculum Associates. <https://www.curriculumassociates.com/teaching-learning-2020>

F. RELATED ONLINE RESOURCES FOR PARENTS

- Mathletics. <https://www.mathletics.com/us/>
- Learn Zillion. <https://learnzillion.com/p/>
- Toy Theater. <https://toytheater.com/>
- XTRA Math. <https://home.xtramath.org/>
- Carrot Top: Free Educational Resources. <https://carrot-top.com/educational-resources>
- Carson Dellosa.
https://www.carsondellosa.com/freeresources/freeprintables/?utm_source=MDR&utm_medium=partnershipAd&utm_campaign=FreeResources
- Clever Tykes. <https://clevertykes.com/shop/>
- Didax. <https://www.didax.com/math/virtual-manipulatives.html>
- Camp DK. <https://www.dk.com/us/information/home-learning-for-kids/>
- Ed Helper. <https://www.edhelper.com/teacher-education/Daily-Free-Learning-Workbooks-for-Teachers-to-Share-with-Parents-while-Schools-are-Closed-Kids-will-actually-do-these.htm>
- Educational Insights. <https://www.educationalinsights.com/at-home-activities-for-kids>
- Emotional ABC. <https://www.emotionalabcs.com/>

IV. TUTORIALS

- Skoolbo. <https://skoolbo.com/>
- Class Kick. <https://classkick.com/>
- Math Central. <http://mathcentral.uregina.ca/index.php>
- Number Rock. <https://numberrock.com/>
- Manga High. <https://www.mangahigh.com/>

- Math Playground. <https://www.mathplayground.com/>
- MRN 365. <https://mrn365.com/>
- Sheppard Software. <https://www.sheppardsoftware.com/math.htm>
- Brain Pop. <https://www.brainpop.com/math/>
- Math Central. <http://mathcentral.uregina.ca/index.php>
- Cool Math Games. <https://www.coolmathgames.com/>
- Fun Brain. <https://www.funbrain.com/>
- Math Game Time. <http://www.mathgametime.com/>

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