



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

RESEARCH GUIDE:

MATHEMATICS 4

TABLE OF CONTENTS

I. Scope Note

II. Search Aids

III. Information Resources

A. Library Resources

a. E-Journals

b. E-Theses

B. Open Access

a. Free E-Books

b. Free E-Journals

c. Free E-Theses

C. Professional Organizations

D. Other Related Web Portals

E. Related Online Resources for Teachers

F. Related Online Resources for Parents

IV. Tutorials

RESEARCH GUIDES

MATHEMATICS 4

I. SCOPE NOTE

The course focuses on four critical areas. First, the students will extend their understanding of baseten notation. This includes the idea of counting in fives and tens. Students should understand multidigit numbers by understanding that the digits in each place represent amounts of thousands, hundreds, tens, or ones. Second, the students will become proficient in addition and subtraction. They will now be able to add and subtract numbers up to 1000 by applying their understanding of addition and subtraction.

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

BT:

- Mathematics

RT:

- Counting
- Addition
- Subtraction
- Division
- Ordinal Numbers
- Measurement
- Time
- Geometry
- Pre-Algebra
- Data
- Estimation
- Money

NT:

- Skip Counting
- Cumulative Property of Additions
- Ordinal Numbers
- Cardinal Numbers
- Place Value
- Odd Numbers
- Even Numbers
- Length
- Estimation
- Mass
- Linear Scale
- Clocks
- Shape

- Flip
- Turn
- Circle
- Symmetry
- Pattern
- Pictographs
- Bar graph
- Currencies of the World

III. INFORMATION RESOURCES

A. LIBRARY RESOURCES

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

➤ E-JOURNALS

- International Electronic Journal of Elementary Education.
https://www.proquest.com/central/publication/publications_656305
- Egitim ve Bilim. https://www.proquest.com/central/publication/publications_1056401
- International Journal of Innovation in Science and Mathematics Education.
https://www.proquest.com/central/publication/publications_4403473
- Roeper Review. https://www.proquest.com/central/publication/publications_48207
- Journal of Cognitive Education and Psychology.
https://www.proquest.com/central/publication/publications_646503
- International Journal of Mathematical Education in Science and Technology.
https://www.proquest.com/central/publication/publications_176146
- Journal for Research in Mathematics Education.
https://www.proquest.com/central/publication/publications_21451
- The Arithmetic Teacher.
https://search.proquest.com/central/publication/publications_815
- Teaching Children Mathematics.
https://search.proquest.com/central/publication/publications_32876
- School Science & Mathematics.
https://search.proquest.com/central/publication/publications_41443
- Gazette – Ontario Association for Mathematics.
https://search.proquest.com/central/publication/publications_43656
- Mathematics Education Research Journal.
https://search.proquest.com/central/publication/publications_2034510

➤ E-THESES

- Barrington, M. M. (2017). Assessing the link between grit and academic achievement in reading, mathematics, and writing among 4th graders: An explanatory sequential mixed methods inquiry (Order No. 10640654). Available from ProQuest Central. (2003154312).

- Retrieved from <https://www.proquest.com/dissertations-theses/assessing-link-between-grit-academic-achievement/docview/2003154312/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>
 - Cavaliere, A. (2013). Determining the influence that educational technology professional development has on 40RW1S34RfeSDcfkexd09rT3th1RW1S34RfeSDcfkexd09rT3 grade students' mathematics achievement (Order No. 10105770). Available from ProQuest Central. (1787197934). Retrieved from <https://www.proquest.com/dissertations-theses/determining-influence-that-educational-technology/docview/1787197934/se-2?accountid=190548>
 - Fuson, K. C., Carroll, W. M., & Drueck, J. V. (2000). Achievement results for second and third graders using the standards-based curriculum everyday mathematics. *Journal for Research in Mathematics Education*, 31(3), 277. Retrieved from <https://www.proquest.com/scholarly-journals/achievement-results-second-third-graders-using/docview/223508918/se-2?accountid=190548>
 - Voorhees, D. R. (2008). Classroom environment and its effect on student achievement in a 30RW1S34RfeSDcfkexd09rT3rd1RW1S34RfeSDcfkexd09rT3 grade mathematics classroom: An autoethnographic study (Order No. 3326500). Available from ProQuest Central. (304447956). Retrieved from <https://www.proquest.com/dissertations-theses/classroom-environment-effect-on-student/docview/304447956/se-2?accountid=190548>
 - Yates, T. H. (2014). Teachers' self-efficacy in mathematics and teaching mathematics, instructional practices, and the Mississippi curriculum test, second edition for mathematics in grades 3-5 (Order No. 3584546). Available from ProQuest Central. (1535277812). Retrieved from <https://search.proquest.com/docview/1535277812?accountid=190548>
 - (Voorhees, D. R. (2008). Classroom environment and its effect on student achievement in a 30RW1S34RfeSDcfkexd09rT3rd1RW1S34RfeSDcfkexd09rT3 grade mathematics classroom: An auto ethnographic study (Order No. 3326500). Available from ProQuest Central. (304447956). Retrieved from <https://search.proquest.com/docview/304447956?accountid=190548>
 - Meadows, J. R. (2015). More than accountability: Understanding teacher perceptions of evaluation, observation, and feedback in grades 3-8 mathematics instruction (Order No. 3740835). Available from ProQuest Central. (1753162556). Retrieved from <https://search.proquest.com/docview/1753162556?accountid=190548>
 - Shravah, V. (2016). Role of higher education in training teachers to teach common core state standards in grade 3-8 mathematics in public elementary and middle schools (Order No. 10244942). Available from ProQuest Central. (1865316757). Retrieved from <https://search.proquest.com/docview/1865316757?accountid=190548>
 - Jones, J. W. (2016). A quantitative study: The relationship between school-wide instructional practices, teacher beliefs, and growth mindset and value-added student growth in elementary mathematics for grades 3-5 (Order No. 10243377). Available from ProQuest Central. (1849023573). Retrieved from <https://search.proquest.com/docview/1849023573?accountid=190548>

- Taylor-Buckner, N. (2014). The effects of elementary departmentalization on mathematics proficiency (Order No. 3620008). Available from ProQuest Central. (1537430229). Retrieved from <https://search.proquest.com/docview/1537430229?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>
- 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

- Learning Mathematics in the Primary Grades. <https://www.pdfdrive.com/learning-mathematics-in-the-primary-grades-d18897588.html>
- Posamentier, Alfred S. (2009). Problem solving in mathematics, grades 3–6: powerful strategies to deepen understanding. California: Corwin A Sage Company. <https://www.pdfdrive.com/problem-solving-in-mathematics-grades-3-6-powerful-strategies-to-deepen-understanding-e184857856.html>
- Stickels, Terry. Math Puzzles and Brain Teasers, grades 3–5 Over 300 Puzzles that Teach Math and Problem-Solving Skills. San Francisco: Jossey-Bass. <https://www.pdfdrive.com/math-puzzles-and-brainteasers-grades-3-5-over-300puzzlesthat-teach-math-and-problem-solving-skills-d156617651.html>
- Degrazia, Joseph. (1991). Math tricks, brain twisters, and puzzles. New York: Bell Publishing House. <https://www.pdfdrive.com/math-tricks-brain-twisters-and-puzzles-e175906340.html>
- (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>

➤ FREE E-JOURNALS

- Mathematical Thinking and Learning. Educational Studies in Mathematics. <https://www.springer.com/journal/10649>
- Open Mathematics. <https://www.degruyter.com/journal/key/MATH/html>
- Educational Studies in Mathematics. <https://www.springer.com/journal/10649>

- African Journal of Educational Studies in Mathematics and Sciences (AJESMS).
<https://www.ajol.info/index.php/ajesms>
- Journal for Research in Mathematics Education.
<https://www.nctm.org/publications/journal-for-research-in-mathematics-education/>
- Mathematical Thinking and Learning.
<https://www.tandfonline.com/loi/hmtl20#.V3FiOqJsxNd>
- Mathematics Teacher. <https://www.nctm.org/publications/mathematics-teacher/>

➤ FREE E-THESES

- Plourde, J. D. (2008). The effect of inquiry-based, hands-on math instruction utilized in combination with web-based, computer-assisted math instruction on 4th-grade students' outcomes. (Thesis). University of Nebraska at Omaha. Retrieved from <http://pqdtopen.proquest.com/#viewpdf?dispub=3324659>
- Joseph, C. M. (2012). Communication and Academic Vocabulary in Mathematics: A Content Analysis of Prompts Eliciting Written Responses in Two Elementary Mathematics Textbooks. (Thesis). University of South Florida. Retrieved from <https://scholarcommons.usf.edu/etd/4344>
- Falvey, L. J. (2012). Gendered Patterns in High Achievement in Mathematics for Grades 4,6, and 8. (Doctoral Dissertation). Rhode Island College. Retrieved from <https://digitalcommons.ric.edu/etd/63>
- Marinelli, B. (2017). Effects of Grouping on 4th Grade Mathematics Achievement. (Thesis). Boise State University. Retrieved from <https://scholarworks.boisestate.edu/td/1347>
- Baker, C. L. (2017). Using Data Notebooks As A Tool to Increase Student Engagement and Achievement in 4th Grade Mathematics. (Thesis). Utah Valley University. Retrieved from <http://contentdm.uvu.edu:81/u?/UVUTheses,728>
- Pulles, S. (2016). The Comparative Effects of Dyad Mathematics Interventions on Improving Multiplication Proficiency. (Doctoral Dissertation). University of Minnesota. Retrieved from <http://hdl.handle.net/11299/182184>
- Almansouri, M. B. (2011). A suggested programme for developing 4th year primary pupils' performance in mathematical word problems in Kuwait. (Doctoral Dissertation). Brunel University. Retrieved from <http://bura.brunel.ac.uk/handle/2438/5828> ; <http://ethos.bl.uk/OrderDetails.do?uin=uk.bl.ethos.538543>
- Barrington, M. M. (2017). Assessing the link between grit and academic achievement in reading, mathematics, and writing among 4th graders: an explanatory sequential mixed methods inquiry . (Thesis). Texas A&M University – Corpus Christi. Retrieved from <http://hdl.handle.net/1969.6/24395>
- Gullie, K. A. (2011). Open-ended (extended/constructed) response questions as predictors of success on subsequent state mathematics examination| the influence of mathematical awareness and conceptual knowledge. (Thesis). State University of New York at Albany. Retrieved from <https://www.proquest.com/dissertations-theses/open-ended-extended-constructed-response/docview/867093379/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>

- Mononen, R. (2014). Early mathematics interventions: Supporting young children with low performance in mathematics. (Doctoral Dissertation). University of Helsinki. Retrieved from <http://hdl.handle.net/10138/144106>
- 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>
- Stanley, A. M. (2011). Accelerated Mathematics and High-Ability Students Math Achievement in Grades Three and Four. (Doctoral Dissertation). East Tennessee State University. Retrieved from <https://dc.etsu.edu/etd/1327>

C. PROFESSIONAL ORGANIZATIONS

- Association of Mathematics Teacher Educators. <https://amte.net/>
- International Commission on Mathematical Instruction. <https://www.mathunion.org/icmi/activities/resources-and-links-community/associations>
- Mathematical Society of the Philippines. <https://www.mathsociety.ph/>
- 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

- Math Games. <https://www.mathgames.com/grade4>
- Math Playground. https://www.mathplayground.com/grade_4_games.html
- Khan Academy. <https://www.khanacademy.org/math/cc-fourth-grade-math>
- Education. <https://www.education.com/games/fourth-grade/math/>
- Splash Learn. <https://www.splashlearn.com/math-games-for-4th-graders>
- Online Math Learning. <https://www.onlinemathlearning.com/grade-3.html>
- Education Printable Worksheets. <https://www.education.com/worksheets/fourth-grade/math/>
- K5 Learning. <https://www.k5learning.com/free-math-worksheets/fourth-grade-4>
- Hooda Math. <https://www.hoodamath.com/>
- Arcademics. <https://www.arcademics.com/>
- IXL Math. <https://www.ixl.com/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/>
- BBC Bitesize. <http://www.bbc.co.uk/schools/410.shtml>
- Cool Math Games. <https://www.coolmathgames.com/>
- Code Monkey. <https://www.codemonkey.com/covid-19/>

E. RELATED ONLINE RESOURCES FOR TEACHERS

- Art of Problem Solving. <https://artofproblemsolving.com/videos/mathcounts>
- Education World. https://www.educationworld.com/a_lesson/archives/math_practice_4_you.shtml
- Wyzant. <https://www.wyzant.com/resources/lessons/math/>
- Math Pickle. <https://mathpickle.com/>
- TES Teaching Resources. <https://www.tes.com/en-us/teaching-resources>
- Teacher Vision. <https://www.teachervision.com/math/third-grade-worksheets>
- Teacher Tube. <https://www.teachertube.com/>
- Math TV. <https://mathtv.com/>
- National Library of Virtual Mathematics. <http://nlvm.usu.edu/en/nav/vlibrary.html>
- Math Goodies. <https://www.mathgoodies.com/>
- Science and Mathematics Initiative for Learning Enhancement. <http://mypages.iit.edu/~smile/index.html>
- Online Chart Tool. <https://www.onlinecharttool.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

- 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

- Long Division. DMSB. Grade 4. <https://www.youtube.com/watch?v=2-sP854NMLw>

- Grade 4 - Mathematics - Rounding Off / Worksheet Cloud Video Lesson. https://www.youtube.com/watch?v=LBF2-yOfuyM&list=PLDhTCRMjso_59UcfCQnLh527U3BasSc_L
- Division for Kids | Basic Math Learning Video. https://www.youtube.com/watch?v=rGMecZ_aERo&t=42s
- Super Kids. <https://www.superkids.com/aweb/tools/math/index.shtml>
- Math Aids. <https://www.math-aids.com/>
- Khan Academy. <https://www.khanacademy.org/>
- Wolfram Math World. <https://mathworld.wolfram.com/>
- Get the Math. <https://www.thirteen.org/get-the-math/>
- Multiplication Tables 01 To 10. <https://www.youtube.com/watch?v=h-CC6jDDahQ>
- Always Remember Your Times Table (6 to 10) Using Finger Multiplication. <https://www.youtube.com/watch?v=x2Nr-f02AUy>
- Division for Kids | Basic Math Learning Video. https://www.youtube.com/watch?v=rGMecZ_aERo
- Fractions for Kids | Math Learning Video. <https://www.youtube.com/watch?v=p33BYf1NDAE>
- Math Antics - Long Division with 2-Digit Divisors. https://www.youtube.com/watch?v=HdU_rf7eMTI
- Simple Math Tricks You Were not Taught at School. <https://www.youtube.com/watch?v=LERb-94P8po>
- Brain Pop. <https://www.brainpop.com/math/>
- Math Central. <http://mathcentral.uregina.ca/index.php>
- Numberock. <https://numberock.com/>
- Cool Math Games. <https://www.coolmathgames.com/>
- Fun Brain. <https://www.funbrain.com/>
- Math Game Time. <http://www.mathgametime.com/>

Prepared by:

Mr. Marvin A. Milla

Layout

mamilla@letranbataan.edu.ph

Ms. Maria Rosiel C. Ordenes

Subject Librarian

mrcordenes@letranbataan.edu.ph

Asst. Prof. Norady Mercado Pere

Chief Librarian

ndmercado@letranbataan.edu.ph

For more inquiries, kindly e-mail us at library@letranbataan.edu.ph