



**Colegio de San Juan de Letran**  
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Library and Media Services

## **RESEARCH GUIDE: MATHEMATICS 2**

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## RESEARCH GUIDES

### MATHEMATICS 2

#### 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

- Fields Mathematics Education Journal.  
[https://www.proquest.com/central/publication/publications\\_2044337](https://www.proquest.com/central/publication/publications_2044337)
- Journal of Mathematics Teacher Education.  
[https://www.proquest.com/central/publication/publications\\_2043845](https://www.proquest.com/central/publication/publications_2043845)
- Journal of Teacher Education.  
[https://www.proquest.com/central/publication/publications\\_1067](https://www.proquest.com/central/publication/publications_1067)
- Kirkus Reviews. [https://www.proquest.com/central/publication/publications\\_756406](https://www.proquest.com/central/publication/publications_756406)
- Educational Studies in Mathematics.  
[https://www.proquest.com/central/publication/publications\\_2043786](https://www.proquest.com/central/publication/publications_2043786)
- The Elementary School Journal.  
[https://www.proquest.com/central/publication/publications\\_40700](https://www.proquest.com/central/publication/publications_40700)
- The Mathematics Enthusiast.  
[https://www.proquest.com/central/publication/publications\\_2030106](https://www.proquest.com/central/publication/publications_2030106)
- Journal of Physics: Conference Series.  
[https://www.proquest.com/central/publication/publications\\_4998668](https://www.proquest.com/central/publication/publications_4998668)
- The Journal of Computers in Mathematics and Science Teaching.  
[https://www.proquest.com/central/publication/publications\\_23124](https://www.proquest.com/central/publication/publications_23124)
- The Arithmetic Teacher.  
[https://search.proquest.com/central/publication/publications\\_815](https://search.proquest.com/central/publication/publications_815)
- Mathematics Education Research Journal.  
[https://search.proquest.com/central/publication/publications\\_2034510](https://search.proquest.com/central/publication/publications_2034510)
- Gazette – Ontario Association for Mathematics.  
[https://search.proquest.com/central/publication/publications\\_43656](https://search.proquest.com/central/publication/publications_43656)
- School Science & Mathematics.  
[https://search.proquest.com/central/publication/publications\\_41443](https://search.proquest.com/central/publication/publications_41443)
- Teaching Children Mathematics.  
[https://search.proquest.com/central/publication/publications\\_32876](https://search.proquest.com/central/publication/publications_32876)

#### ➤ E-THESES

- Emmert, T. N. (2015). Examining the effects of mathematics journals on elementary students' mathematics anxiety levels (Order No. 3729409). Available from ProQuest Central. (1728126303). Retrieved from <https://www.proquest.com/dissertations-theses/examining-effects-mathematics-journals-on/docview/1728126303/se-2?accountid=190548>
- Guerrero, J. E. (2014). Cognitively guided instruction, a professional development approach to teaching elementary mathematics: A case study of adoption and implementation in three rural elementary schools (Order No. 3622147). Available from ProQuest Central. (1547944263). Retrieved from <https://www.proquest.com/dissertations-theses/cognitively-guided-instruction-professional/docview/1547944263/se-2?accountid=190548>
- Oleson, V. (2010). The impact of mathematics professional development on elementary teachers' mathematics content knowledge for teaching and implementation of innovative pedagogical practices (Order No. 3442091). Available from ProQuest Central. (851543751). Retrieved from <https://www.proquest.com/dissertations-theses/impact-mathematics-professional-development-on/docview/851543751/se-2?accountid=190548>
- Rishor, D. (2018). The teacher-text interaction in mathematics instruction: Elementary and middle school teachers redesign mathematics exercises to increase cognitive demand (Order No. 10810685). Available from ProQuest Central. (2047459424). Retrieved from <https://www.proquest.com/dissertations-theses/teacher-text-interaction-mathematics-instruction/docview/2047459424/se-2?accountid=190548>
- Sun, J. (2017). Mathematics teacher identity in the context of mathematics reform: Elementary teacher experiences (Order No. 10633689). Available from ProQuest Central. (1967110327). Retrieved from <https://www.proquest.com/dissertations-theses/mathematics-teacher-identity-context-reform/docview/1967110327/se-2?accountid=190548>
- Lundin, J. C. (2007). Effects of mathematics content courses on content knowledge for teaching mathematics for elementary preservice teachers (Order No. 3313731). Available from ProQuest Central. (304892679). Retrieved from <https://www.proquest.com/dissertations-theses/effects-mathematics-content-courses-on-knowledge/docview/304892679/se-2?accountid=190548>
- Gaffney, A. M. (2014). Change in experienced teachers' pedagogical beliefs through learning elementary mathematics content (Order No. 3708812). Available from ProQuest Central. (1698505481). Retrieved from <https://www.proquest.com/dissertations-theses/change-experienced-teachers-pedagogical-beliefs/docview/1698505481/se-2?accountid=190548>
- Curtis-Bey, L. (2013). School leaders' guide to elementary mathematics (Order No. 3568212). Available from ProQuest Central. (1424829788). Retrieved from <https://www.proquest.com/dissertations-theses/school-leaders-guide-elementary-mathematics/docview/1424829788/se-2?accountid=190548>
- Hecox, C. C. (2010). Cooperative learning and the gifted student in elementary mathematics (Order No. 3426607). Available from ProQuest Central. (763286798). Retrieved from <https://www.proquest.com/dissertations-theses/cooperative-learning-gifted-student-elementary/docview/763286798/se-2?accountid=190548>

- Johnson, B. L. (2018). Math teachers who don't like math: A narrative inquiry into the mathematics experience of early childhood and elementary educators who dislike mathematics (Order No. 10837489). Available from ProQuest Central. (2088427300). Retrieved from <https://www.proquest.com/dissertations-theses/math-teachers-who-dont-like-narrative-inquiry/docview/2088427300/se-2?accountid=190548>
- Brown, J. (2017). Teacher's perception of technology use in the elementary mathematics classroom (Order No. 10254846). Available from ProQuest Central. (1873009634). Retrieved from <https://www.proquest.com/dissertations-theses/teachers-perception-technology-use-elementary/docview/1873009634/se-2?accountid=190548>
- Johnson, W. (2010). Teacher collaboration in professional development: Building the social capital of elementary mathematics teachers (Order No. 3411563). Available from ProQuest Central. (577632576). Retrieved from <https://www.proquest.com/dissertations-theses/teacher-collaboration-professional-development/docview/577632576/se-2?accountid=190548>
- Harrison, F. A. (2011). The impact of collaborative-inclusion education on the academic achievement of students in general education and measured by the end of the year mathematics assessment in grade 2 (Order No. 3472691). Available from ProQuest Central. (890225634). Retrieved from <https://search.proquest.com/docview/890225634?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>
- (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-mathematicsby-young-children-e33477217.html>

#### ➤ FREE E-JOURNALS

- 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>
- American Mathematical Society. <https://www.ams.org/journals>
- 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#.V3FiOqJsxNd>
- 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/>
- 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>
- Johnson, J. I. (2016). An Investigation into the Definitions and Development of Pedagogical Content Knowledge Among Pre-Service and Current Mathematics Teachers. (Doctoral Dissertation). Arizona State University. Retrieved from <http://repository.asu.edu/items/40176>
- Swicegood, G. P. (2015). An Investigation of the Impact of iPad Usage on Elementary Mathematical Skills and Attitudes. (Doctoral Dissertation). University of Montana. Retrieved from <https://scholarworks.umt.edu/etd/4591>
- NC DOCKS at The University of North Carolina at Greensboro; Richardson, K. (2018). Understanding children's reasoning in multiplication problem-solving. (Thesis). NC Docks. Retrieved from [http://libres.uncg.edu/ir/uncg/f/K\\_Richardson\\_Understanding\\_Childrens\\_2018.pdf](http://libres.uncg.edu/ir/uncg/f/K_Richardson_Understanding_Childrens_2018.pdf)
- 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>

- 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>
- Young, C. (2017). Adaptation of the mathematics recovery programme to facilitate progression in the early arithmetic strategies of Grade 2 learners in Zambia. (Thesis). Rhodes University. Retrieved from <http://hdl.handle.net/10962/4977>
- 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>

### 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

- Learn Zillion. <https://learnzillion.com/p/>
- Splash Learn. <https://www.splashlearn.com/math-games-for-2nd-graders>
- Math Games. <https://www.mathgames.com/grade2>
- 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

- Education. <https://www.education.com/games/second-grade/math/>
- Turtle Diary. <https://www.turtlediary.com/games/second-grade/math.html>

- Prodigy Game. <https://www.prodigygame.com/main-en/blog/15-helpful-math-websites-for-teachers-5-to-share-with-kids-downloadable-list/>
- 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/videos\\_by\\_topic](https://mathtv.com/videos_by_topic)
- National Library of Virtual Manipulatives. <http://nlvm.usu.edu/en/nav/vlibrary.html>
- Super Kids. <https://www.superkids.com/aweb/tools/math/index.shtml>
- Math Goodies. <https://www.mathgoodies.com/>
- Math Aids. <https://www.math-aids.com/>
- Math World Wolfram. <https://mathworld.wolfram.com/>
- SMILE. <http://mypages.iit.edu/~smile/index.html>
- Online Chart Tool. <https://www.onlinecharttool.com/>
- Scholastic. <https://www.scholastic.com/sitemap.htm>
- Get the Math. <https://www.thirteen.org/get-the-math/>
- 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 – PRINTABLE

- 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](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

- 2nd Grade Math Compilation. <https://www.youtube.com/watch?v=S2TYfrGEih4>



- Grade 2 Math 11.7, Subtracting three-digit numbers.  
<https://www.youtube.com/watch?v=dAufhZ594V8>
- Analog Clocks for Kids | How To Tell Time. <https://www.youtube.com/watch?v=bZY8WNMRcQ8>
- Place Values For Kids | Ones, Tens, Hundreds, Thousands.  
<https://www.youtube.com/watch?v=QS32I5WhSuY>
- Multiplication Lesson for Kids | Classroom Edition. <https://www.youtube.com/watch?v=s-PPjXREXm8>
- Division for Kids | Basic Math Learning Video.  
[https://www.youtube.com/watch?v=rGMecZ\\_aERo](https://www.youtube.com/watch?v=rGMecZ_aERo)
- Coins for Kids | Math Learning Video. <https://www.youtube.com/watch?v=SUYJHL2muN8>
- Grade 2 Math 11.8, Practicing Subtraction (three-digits).  
<https://www.youtube.com/watch?v=antwLWyBvU8>
- ETULay 2nd Quarter - Week 5 - Mathematics - Grade 2 - PIVOT Module.  
[https://www.youtube.com/watch?v=\\_jw57\\_3r8Gg](https://www.youtube.com/watch?v=_jw57_3r8Gg)
- 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/>

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