



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

RESEARCH GUIDE: SCIENCE 2

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RESEARCH GUIDES

SCIENCE 2

I. SCOPE NOTE

Learners will use their senses to explore and describe the functions of their senses, compare two or more objects and using two or more properties , sort things in different ways and give a reason for doing so, describe the kind of weather or certain events in the home or school and express how these are affecting them, do simple measurements of length, tell why some things around them are important , decide if what they do is safe or dangerous; give suggestions on how to prevent accidents at home, practice electricity, water, and paper conservation, help take care of pets or of plants , and tell short stories about what they do, what they have seen, or what they feel.

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

BT:

- Science

RT:

- Matters
- Light
- Heat
- Sound Energy
- Force
- Motion
- Body Parts
- Senses
- Animals
- Parts of Animals
- Plants
- Parts of Plants
- Land Forms
- Water Forms
- Resources
- Renewable Resources
- Non-renewable Resources
- Human Activities
- Earth Land
- Water
- Weather
- Object seen in the Sky

NT:

- Properties

- Parts of Senses
- Functions of Senses
- Proper Care of the Body
- Similarity and Differences of the People
- Need of Animals
- Functions of Plants
- Characteristics of Plants
- Uses of Plants
- Human Activities that affect the Earth Lands and Water

III. INFORMATION RESOURCES

A. LIBRARY RESOURCES

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

➤ E-JOURNALS

- The Reading Teacher.
https://www.proquest.com/central/publication/publications_41358
- Journal of Baltic Science Education.
https://www.proquest.com/central/publication/publications_4477238
- Early Childhood Education Journal.
https://www.proquest.com/central/publication/publications_54020
- Asia Pacific Education Review.
https://www.proquest.com/central/publication/publications_2034556
- Research in Science & Technological Education.
https://www.proquest.com/central/publication/publications_33518
- Journal of Science Education and Technology.
https://www.proquest.com/central/publication/publications_2043721
- Instructional Science.
https://www.proquest.com/central/publication/publications_54127
- Canadian Journal of Science, Mathematics and Technology Education.
https://search.proquest.com/central/publication/publications_42727
- International Journal of Science and Mathematics Education.
https://search.proquest.com/central/publication/publications_2043858
- Science Education. https://search.proquest.com/central/publication/publications_48964
- Teaching Science. https://search.proquest.com/central/publication/publications_29558
- Science and Children.
https://search.proquest.com/central/publication/publications_41736

➤ E-THESES

- Roberson, S. V. (2010). Science skills on wheels: The exploration of a mobile science lab's influence on teacher and student attitudes and beliefs about science (Order No. 3438381). Available from ProQuest Central. (839311793). Retrieved from

<https://www.proquest.com/dissertations-theses/science-skills-on-wheels-exploration-mobile-labs/docview/839311793/se-2?accountid=190548>

- Pillsbury, R. T. (2008). ORW1S34RfeSDcfkexd09rT2Diagramming the never ending story1RW1S34RfeSDcfkexd09rT2: Student-generated diagrammatic stories integrate and retain science concepts improving science literacy (Order No. 3320958). Available from ProQuest Central. (304369897). Retrieved from <https://www.proquest.com/dissertations-theses/i-diagramming-never-ending-story-student/docview/304369897/se-2?accountid=190548>
- Kralina, L. M. (2009). Enhancing science education through extracurricular activities: A retrospective study of “Suzy science and the whiz KidsORW1S34RfeSDcfkexd09rT3©1RW1S34RfeSDcfkexd09rT3” (Order No. 3393624). Available from ProQuest Central. (305065986). Retrieved from <https://www.proquest.com/dissertations-theses/enhancing-science-education-through/docview/305065986/se-2?accountid=190548>
- Logerwell, M. G. (2009). The effects of a summer science camp teaching experience on preservice elementary teachers' science teaching efficacy, science content knowledge, and understanding of the nature of science (Order No. 3367054). Available from ProQuest Central. (305131776). Retrieved from <https://www.proquest.com/dissertations-theses/effects-summer-science-camp-teaching-experience/docview/305131776/se-2?accountid=190548>
- Schroeder, M. (2010). The effect of classroom instruction, attitudes towards science and motivation on students' views of uncertainty in science (Order No. NR64132). Available from ProQuest Central. (734607438). Retrieved from <https://www.proquest.com/dissertations-theses/effect-classroom-instruction-attitudes-towards/docview/734607438/se-2?accountid=190548>
- Wang, H. (2012). A new era of science education: Science teachers' perceptions and classroom practices of science, technology, engineering, and mathematics (STEM) integration (Order No. 3494678). Available from ProQuest Central. (922637122). Retrieved from <https://www.proquest.com/dissertations-theses/new-era-science-education-teachers-perceptions/docview/922637122/se-2?accountid=190548>
- Rangasammy, G. (2017). An investigation of teachers' reported use of scientific practices in elementary instruction: Implications for student outcomes and principals' selfefficacy (Order No. 10641493). Available from ProQuest Central. (2011020439). Retrieved from <https://search.proquest.com/docview/2011020439?accountid=190548>
- Almarode, J. T. (2011). Frequency, duration, and time devoted to elementary science instruction and the association with science achievement and science interest (Order No. 3484456). Available from ProQuest Central. (905163834). Retrieved from <https://search.proquest.com/docview/905163834?accountid=190548>
- Scoggins, S. S. (2016). The effects of academic grouping on student performance in science (Order No. 10183560). Available from ProQuest Central. (1845855228). Retrieved from <https://search.proquest.com/docview/1845855228?accountid=190548>
- Bays, K. (2016). Teaching the next generation of scientists: Science education in the primary grades (Order No. 10140660). Available from ProQuest Central. (1821617902). Retrieved from <https://search.proquest.com/docview/1821617902?accountid=190548>
- Olgan, R. (2008). A longitudinal analysis of science teaching and learning in kindergarten and first-grade (Order No. 3348526). Available from ProQuest Central. (304645479). Retrieved from <https://search.proquest.com/docview/304645479?accountid=190548>

B. OPEN ACCESS

➤ FREE E-BOOKS

- Abell, Sandra K. (2010). Designing and Teaching the Elementary Science Methods Course (Teaching and Learning in Science Series). New York: Routledge Taylor & Francis. <https://www.pdfdrive.com/designing-and-teaching-the-elementary-science-methods-course-teaching-and-learning-in-science-series-d157138066.html>
- Donovan, M. Suzzane. (2005). How Students Learn: History, Mathematics, and Science in the Classroom. Washington: National Academies Press. <https://www.pdfdrive.com/how-students-learn-history-mathematics-and-science-in-the-classroom-d186526131.html>
- McKnight, Katherine S. (2013). The Elementary Teacher's Big Book of Graphic Organizers, K-5: 100+ Ready-to-Use Organizers That Help Kids Learn Language Arts, Science, Social Studies, and more. California: John Wiley & Sons. <https://www.pdfdrive.com/the-elementary-teachers-big-book-of-graphic-organizers-k-5-100-ready-to-use-organizers-that-help-kids-learn-language-arts-science-social-studies-and-more-d157721306.html>
- Hackett, Jay. (2008). Science: A Closer Look. New York: McGraw Hill. <https://www.pdfdrive.com/science-a-closer-look-grade-1-d162351463.html>
- A Closer Look for Grade 1 – Reading and Writing in Science Workbook. <https://www.pdfdrive.com/a-closer-look-grade-1-reading-and-writing-in-science-workbook-d19687866.html>
- Michaels, Sarah. (2007). Ready, set, science! : putting research to work in K-8 science classrooms. Washington: The National Academic Press. <https://www.pdfdrive.com/ready-set-science-putting-research-to-work-in-k-8-science-classes-d184354367.html>
- Manitoba Education Training (1999). Kindergarten to Grade 4 science : a foundation for implementation. <https://www.pdfdrive.com/childergarten-to-grade-4-science-d40105280.html>
- Science K to 7: integrated resource package 2005. <https://www.pdfdrive.com/science-kindergarten-d51382007.html>

➤ FREE E-JOURNALS

- Journal of Science Teacher Education. <https://www.tandfonline.com/toc/uste20/current>
- Journal of Science Education and Technology. <https://www.springer.com/journal/10956>
- Science Education. <https://onlinelibrary.wiley.com/journal/1098237x>
- Educational Sciences – Open Access Journal. <https://www.mdpi.com/journal/education>
- Frontiers for Young Minds. <https://kids.frontiersin.org/>
- Sci EP. <http://www.sciepub.com/portal/search?q=kindergarten>

➤ FREE E-THESES

- Hillman, P. C. (2018). Vertically Aligned Professional Learning Communities as a Keystone for Elementary Science Teacher Professional Development, Growth, and Support. (Doctoral Dissertation). Columbia University. Retrieved from <https://doi.org/10.7916/D82N6JQH>

- Hettinger, J. K. (2014). Finding Success in Elementary Science Across Socioeconomic Boundaries. (Thesis). Boise State University. Retrieved from <https://scholarworks.boisestate.edu/td/884>
- Harris, G. B. (2020). Novice Elementary Teachers' Self-Efficacy for Teaching Science: A Phenomenological Study. (Doctoral Dissertation). Liberty University. Retrieved from <https://digitalcommons.liberty.edu/doctoral/2589>
- Richey, L. R. (2011). The portrayal of the nature of science in upper elementary instructional materials. (Thesis). Iowa State University. Retrieved from <https://lib.dr.iastate.edu/etd/10287>
- Wenner, J. A. (2014). How context impacts elementary teachers' decisions about science instruction. (Thesis). University of Georgia. Retrieved from <http://hdl.handle.net/10724/28945>
- Logerwell, M. G. (2009). The effects of a summer science camp teaching experience on preservice elementary teachers' science teaching efficacy, science content knowledge, and understanding of the nature of science. (Thesis). George Mason University. Retrieved from <http://pqdtopen.proquest.com/#viewpdf?dispub=3367054>
- Tank, K. M. (2014). Examining the effects of integrated science, engineering, and nonfiction literature on student learning in elementary classrooms. (Doctoral Dissertation). University of Minnesota. Retrieved from <http://hdl.handle.net/11299/165090>
- Kinskey, M. (2020). Developing and Facilitating Socioscientific Issues Based Science Lessons: Elementary Preservice Teachers' Experiences. (Thesis). University of South Florida. Retrieved from <https://scholarcommons.usf.edu/etd/8236>
- Parks, M. Y. (2011). The nature of elementary students' science discourse and conceptual learning. (Doctoral Dissertation). Florida Atlantic University. Retrieved from <http://purl.flvc.org/FAU/3318675>
- Cloutier, S. E. (2016). Learning About Teaching Science: Improving Teachers' Practice Through Collaborative Professional Learning. (Thesis). University of Western Ontario. Retrieved from <https://ir.lib.uwo.ca/etd/3831>
- Ronan, D. (2014). Science Specialists in Urban Elementary Schools: An Ethnography Examining Science Teaching Identity, Motivation and Hierarchy in a High-Stakes Testing Climate. (Doctoral Dissertation). Columbia University. Retrieved from <https://doi.org/10.7916/D86T0JS3>
- Jung, K. (2017). Supporting Academic Language Development in Elementary Science: A Classroom Teaching Experiment. (Doctoral Dissertation). University of Minnesota. Retrieved from <http://hdl.handle.net/11299/190551>
- Marks, J. (2017). Impact of Integrated Science and English Language Arts Literacy Supplemental Instructional Intervention on Science Academic Achievement of Elementary Students. (Doctoral Dissertation). Liberty University. Retrieved from <http://digitalcommons.liberty.edu/doctoral/1540>
- Vargas, M. J. (2012). Sharing Science: A Study on the Effects of Informal Science Education Outreach with Elementary Students. (Masters Thesis). University of New Mexico. Retrieved from https://digitalrepository.unm.edu/biol_etds/118
- Chen, J. L. (2019). Activating Resources for Science and Developing the Science Teacher Identities of Elementary Teachers Through School-Based Professional Development. (Doctoral Dissertation). Columbia University. Retrieved from <https://doi.org/10.7916/d8-81mp-m574>

- Berg, A. B. (2012). De-Marginalizing Science in the Early Elementary Classroom: Fostering Reform-Based Teacher Change through Professional Development, Accountability, and Addressing Teachers' Dilemmas. (Doctoral Dissertation). Columbia University. Retrieved from <https://doi.org/10.7916/D8C253H0>
- Benavides, A. W. (2016). Meanings teachers make of teaching science outdoors as they EXPLORE citizen science. (Thesis). NC Docks. Retrieved from http://libres.uncg.edu/ir/uncg/f/Benavides_uncg_0154D_11905.pdf
- Peer, J. (2011). Gender, grade-level and stream differences in learning environment and student attitudes in primary science classrooms in Singapore. (Thesis). Curtin University of Technology. Retrieved from <http://hdl.handle.net/20.500.11937/1158>
- Patchett, C. M. (2015). Evaluating Primary Grade-Level Science Texts for Evidence of Science Information, Quality of Literature, and Elements of Critical Literacy with the Modified Analytical Science Trade-Book Rubric. (Thesis). Texas A&M University – Corpus Christi. Retrieved from <http://hdl.handle.net/1969.6/634>
- Sothayapetch, P. (2013). A comparative study of science education at the primary school level in Finland and Thailand. (Doctoral Dissertation). University of Helsinki. Retrieved from <http://hdl.handle.net/10138/42259>
- Benningfield, S. (2013). The Effects of Gender and Implicit Theories on Science Achievement and Interest in Elementary-Aged Students. (Master's Thesis). Western Kentucky University. Retrieved from <https://digitalcommons.wku.edu/theses/1254>
- Ngmenkpieo, F. (2010). The nature of instructional support HoDs provide to mathematics and science teachers in Cape Town primary schools. (Thesis). Cape Peninsula University of Technology. Retrieved from <http://etd.cput.ac.za/handle/20.500.11838/1965>

C. PROFESSIONAL ORGANIZATIONS

- Association for Science Teacher Education. <https://theaste.org/>
- The Association of Science and Mathematics Coaches of the Philippines. <https://www.iamsed.org/>
- Philippine Association of Chemistry Teachers. <https://pact.ph/membership/>
- National Education Association. <https://www.nea.org/home/2580.htm?cpsessionid=SID49F2D42F-401C7F83>
- American Federation of Teachers. <https://www.aft.org/>
- Computer Using Educators. <https://cue.org/>
- National Association for Gifted Children. <https://www.nagc.org/>
- Association for Experimental Education. <https://www.aee.org/>

D. OTHER RELATED WEB PORTALS

- Curiosity Machine. <https://www.curiositymachine.org/>
- Ed Heads: Activate your Mind. <https://edheads.org/?>
- Exploratorium. <https://www.exploratorium.edu/>
- Science Kids. <https://www.sciencekids.co.nz/>
- NASA Kids Club. <https://www.nasa.gov/kidsclub/index.html>
- Brain Pop Science. <https://www.brainpop.com/science/seeall/>
- Discovery Kids Plus. <https://www.discoverykidsplus.com/>
- National Geographic Kids. <https://kids.nationalgeographic.com/>

- PBS Kids. <https://pbskids.org/>
- Ology. <https://www.amnh.org/explore/ology>
- Frontiers for Young Minds. <https://kids.frontiersin.org/>
- Earthquake for Kids. <https://earthquake.usgs.gov/learn/kids/>
- Chemi Cool. <https://www.chemicool.com/>
- NASA Science. <https://solarsystem.nasa.gov/missions/galileo/overview/>
- Smithsonian: National Air and Space Museum. <https://airandspace.si.edu/>
- Climate Kids. <https://climatekids.nasa.gov/>
- My First Garden. <https://web.extension.illinois.edu/firstgarden/>
- Farmer's Almanac for Kids. <https://www.almanac.com/kids>
- PBS Building Big. <http://www.pbs.org/wgbh/buildingbig/index.html>

E. RELATED ONLINE RESOURCES FOR TEACHERS

- Smithsonian: Science Education Center. <https://ssec.si.edu/>
- How to Smile. <https://www.howtosmile.org/>
- Periodic Videos. <http://www.periodicvideos.com/index.htm>
- Teach the Earth. <https://serc.carleton.edu/teachearth/index.html>
- Stellarium. <http://stellarium.org/>
- NASA Education. <https://www.nasa.gov/education/materials/>
- Learn Genetics. <https://learn.genetics.utah.edu/>
- The Concord Consortium. <https://concord.org/our-work/research-projects/>
- Chem Collective. <http://www.chemcollective.org/>
- Sci Table. <https://www.nature.com/scitable/>
- Impact Earth. <https://www.purdue.edu/impactearth/>
- Creosity Space. <https://www.creosityspace.com/spring2020.html>
- Elementari. <https://www.elementari.io/>
- Essentials Skills. <https://essentialskills.com/>
- Common Sense Education. <https://www.common sense.org/education/website/ck-12>
- Define Learning. <https://app.definedstem.com/home>
- PHET Interactive Simulations in Math and Science. <https://phet.colorado.edu/>
- Ok Go Sandbox. <https://okgosandbox.org/>

F. RELATED ONLINE RESOURCES FOR PARENTS

- Jumpstart. <https://www.jumpstart.com/parents/resources/science-resources>
- Community Resources for Science. <https://www.crs science.org/educators/Family>
- Backpack Sciences. <https://www.backpacksciences.com/science-simplified>
- Breakout Edu. <https://www.breakoutedu.com/funathome>
- Carson Dellosa. <https://www.carsondellosa.com/free-resources/free-printables/>
- PBS Nova. <https://www.pbs.org/wgbh/nova/>
- National Science Digital Library. <https://nsdl.oercommons.org/>

IV. TUTORIALS

- SciShow Kids. <https://www.youtube.com/channel/UCRFIPG2u1DxKLNuE3y2SjHA>
- National Geographic Kids. <https://kids.nationalgeographic.com/videos/>

- Science Videos for Kids. https://www.youtube.com/playlist?list=PLyqf1JCzOf_nBNCibt2BQI-hLBCzgHrMt
- Popular Science. <https://www.youtube.com/user/Popscivideo>
- Operation Ouch. <https://www.youtube.com/c/OperationOuch/videos>
- Sids the Science Kids. <https://pbskids.org/sid/videos>
- Socratica Kids. <https://www.youtube.com/c/SocraticaKids/videos>
- Steve Spangler Science. <https://www.stevespanglerscience.com/lab/categories/experiments/at-home-science/>
- Home Science. <https://www.youtube.com/c/maricv84HomeScience/videos>
- Minute Earth. https://www.youtube.com/channel/UCeiYXex_fwgYDonaTcSlk6w
- Science Bob. <https://sciencebob.com/category/videos/>
- Science Kidz. <https://www.sciencekids.co.nz/videos.html>
- Sports Science. https://www.youtube.com/playlist?list=PLn3nHXu50t5xqHW67LKFhUB_C2Y9C0lwC
- NASA Gallery. <https://www.nasa.gov/multimedia/videogallery/index.html>
- Scientific American. <https://www.youtube.com/user/SciAmerican>
- How Stuff Works. <https://www.youtube.com/HowStuffWorks>
- Tell Me Why? https://www.youtube.com/playlist?list=PL84TJyOKWovp9cov9kZS_dzZ2IENS7Yea
- Crash Course. <https://www.youtube.com/channel/UCX6b17PVsYBQ0ip5gyeme-Q>
- It's Okay to Be Smart. <https://www.youtube.com/channel/UCh4BNiO-FOK2dMXoFtViWHw>
- Veritasium. <https://www.youtube.com/channel/UCHnyfMqiRRG1u-2MsSQLbXA>
- AsapSCIENCE. <https://www.youtube.com/user/AsapSCIENCE/featured>
- The Infographics Show. <https://www.youtube.com/user/TheInfographicsShow>
- Science Max. <https://www.youtube.com/channel/UCbprhISv-0ReKPPyh7-Dtw/featured>
- Finding Stuff Out. <https://www.youtube.com/channel/UC8u2mS-ZGT2PldXH8-zvx3A>
- The Slow Mo Guys. <https://www.youtube.com/channel/UCUK0HBIBWgM2c4vsPhkYY4w>
- Our Solar System | Science | Grade-2,3 | Tutway |. https://www.youtube.com/watch?v=1k_WRFVwspQ
- Plant Parts and Functions | First and Second Grade Science Lesson for Kids. <https://www.youtube.com/watch?v=18amLZ9vfG8>
- Earth Science for Kids - Solar System, Weather, Fossils, Volcanoes & More - Rock 'N Learn. <https://www.youtube.com/watch?v=lv6dC0coQeI>
- Natural Disasters compilation | The Dr. Binocs Show | Best Learning Videos for Kids. <https://www.youtube.com/watch?v=HaEmlakO7f4>
- Names of Human Organ systems | Science. <https://www.youtube.com/watch?v=GWmzMzS-TpQ>
- K12 Grade 2 - Science: Exploring Our Senses. <https://www.youtube.com/watch?v=7Qf8de1OCRI>
- What Is Matter? - The Dr. Binocs Show | Best Learning Videos for Kids. <https://www.youtube.com/watch?v=QQsybALJoew>
- Human Body - Science for Kids - Rock 'N Learn. <https://www.youtube.com/watch?v=AHQGNb0zBgg>
- Rick Crosslin Grade 2 Science - What is Force, Motion, and Position? <https://www.youtube.com/watch?v=pD1T27chY4o>
- Characteristics of Animals. <https://www.youtube.com/watch?v=YRppyKiyw3M>
- EASY SCIENCE EXPERIMENTS THAT WILL AMAZE KIDS. <https://www.youtube.com/watch?v=19kIYF2FApc>
- 25 COOLEST Science Experiments You Can Do at Home for Kids. <https://www.youtube.com/watch?v=KOPJ4LiWI8w>



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