



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

RESEARCH GUIDE:

SCIENCE 9

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RESEARCH GUIDES

SCIENCE

I. SCOPE NOTE

Integrated Science, a course designed for high school students needing an entry level science course covering basic concepts found in earth science, biology, astronomy, physics and general inquiry. oddyseyware.com

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

BT:

- Science

RT:

- Respiratory
- Circulatory
- Heredity
- Biodiversity
- Evolution
- Ecosystems
- Matter
- Chemical Bonding
- Carbon Compounds
- Mole Concept
- Volcanoes
- Climate
- Constellations
- Force
- Energy
- Motion
- Electricity
- Magnetism
- Work
- Heat
- Astrology

NT:

- Inheritance
- Variation
- Species Extinction
- Photosynthesis
- Respiration
- Ionic Bonding
- Covalent Bonding
- Metallic Bonding

- Carbon Atoms
- Organic Compound
- Mass
- Volcanic Eruption
- Global Climate Phenomena
- Stars
- Impulse
- Collision
- Momentum
- Conservation of energy
- Mechanical Energy
- Power Generation
- Energy Losses
- Electrical Energy

III. INFORMATION RESOURCES

A. LIBRARY RESOURCES

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

➤ E-JOURNALS

- Environmental Earth Sciences.
https://www.proquest.com/publication/publications_54063
- PLoS Biology. https://www.proquest.com/publication/publications_1436341
- Journal of Science and Arts. https://www.proquest.com/publication/publications_105793
- Global Change Biology. https://www.proquest.com/publication/publications_30327
- Journal of Chemical Education.
https://www.proquest.com/publication/publications_41672
- Celestial Mechanics and Dynamical Astronomy.
https://www.proquest.com/publication/publications_54144
- Plant Biosystems. https://www.proquest.com/publication/publications_196194
- Foundations of Science
<https://search.proquest.com/docview/2259931891/356F06E52C6B4A6FPQ/7?accountid=190548>
- Science Scope
<https://search.proquest.com/docview/2160290595/8141D4786404404BPQ/13?accountid=190548>

➤ E- THESES

- Ahmed, A. K. M. A. (2021). Analysis of volatile organic compounds: Petroleum emissions and microbial degradation (Order No. 28493057). Available from ProQuest Central. (2543411020). Retrieved from <https://www.proquest.com/dissertations-theses/analysis-volatile-organic-compounds-petroleum/docview/2543411020/se-2?accountid=190548>
- Hasik, P. (2020). A macroevolutionary view on extinction in aves, chiroptera, and

- odonata (Order No. 28030298). Available from ProQuest Central. (2440919896). Retrieved from <https://www.proquest.com/dissertations-theses/macroevolutionary-view-on-extinction-aves/docview/2440919896/se-2?accountid=190548>
- Sleckman, J. (2020). A qualitative study of visualization skills used to understand chemical bonding theories (Order No. 27995618). Available from ProQuest Central. (2425565105). Retrieved from <https://www.proquest.com/dissertations-theses/qualitative-study-visualization-skills-used/docview/2425565105/se-2?accountid=190548>
 - Cahalan, R. C. (2020). Explosive subaqueous eruptions: The influence of volcanic jets on eruption dynamics and tephra dispersal in underwater eruptions (Order No. 28150103). Available from ProQuest Central. (2507732635). Retrieved from <https://www.proquest.com/dissertations-theses/explosive-subaqueous-eruptions-influence-volcanic/docview/2507732635/se-2?accountid=190548>
 - Su, J. (2019). On the use of wind power and pumped-storage hydro for blackout restoration and resilience (Order No. 13884193). Available from ProQuest Central. (2234663802). Retrieved from <https://www.proquest.com/dissertations-theses/on-use-wind-power-pumped-storage-hydro-blackout/docview/2234663802/se-2?accountid=190548>
 - Balogun, S. J. (2018). Static optimization of fuel cell plug-in hybrid electric vehicle (Order No. 10978070). Available from ProQuest Central. (2182817858). Retrieved from <https://www.proquest.com/dissertations-theses/static-optimization-fuel-cell-plug-hybrid/docview/2182817858/se-2?accountid=190548>
 - Lee, Young Duk. (2015). Thermodynamic, Economic and Environmental Evaluation of Solid Oxide Fuel Cell Hybrid Power Generation Systems. (Order No. 10701465). Available from ProQuest Central (1958650354). Retrieved from <https://search.proquest.com/docview/1958650354/43027084B48E4FC5PQ/14?accountid=190548>
 - Hughes, Eric Joseph. (2009). Using horizontal transport characteristics to infer an emission height of volcanic sulfur dioxide. (Order No. 1465376). <https://search.proquest.com/docview/305062061/8430B6397FE14707PQ/3?accountid=190548>
 - Brown, Dustin Paul. (2015). Target-directed biosynthetic evolution: Redirecting plant evolution to genomically optimize a plant's pharmacological profile. (Order No. 3734441). Available from ProQuest Central (305062061). Retrieved from <https://search.proquest.com/docview/1749037498/B75F32949D645F0PQ/2?accountid=190548>
 - Hamrick, Todd Robert. (2011). Optimization of Operating Parameters for Minimum Mechanical Specific Energy in Drilling. (Order No. 3476545). Available from ProQuest Central (894086281). Retrieved from <https://search.proquest.com/docview/894086281/DE2E600F46354B79PQ/2?accountid=190548>
 - Sims, Ershela Latrecia. (2000). Development of a methodology to predict metabolic energy expenditure from mechanical energy expenditure in walking. (Order No. 9993380). Available from ProQuest Central (304630692). Retrieved from <https://search.proquest.com/docview/304630692/DE2E600F46354B79PQ/1?accountid=190548>

B. OPEN ACCESS

➤ FREE E-BOOKS

- Tarbuck, Edward J. (2015). Earth Science, 14th ed. USA: Pearson Education, Inc. <https://www.pdfdrive.com/earth-science-d166758327.html>
- Walker, Jearl, Halliday, David, Resnick, Robert (2014). Fundamentals of physics (10th ed.). Hoboken, NJ: John Wiley & Sons. <https://www.pdfdrive.com/fundamentals-of-physics-textbook-d33735280.html>
- Privett, Grant & Jones, Kevin (2013). The constellation observing atlas. New York: Springer Science+Business Media. <https://www.pdfdrive.com/the-constellation-observing-atlas-d187102973.html>
- Solomons, T.W. Grahams, Fryhle, Craig B. (2011). Organic chemistry (10th ed.). Hoboken, NJ: John Wiley & Sons. <https://www.pdfdrive.com/organic-chemistry-10th-edition-d163230838.html>
- Begon, Michael, Townsend, Colin R. & Harper, John L. (2006). Ecology: From individuals to ecosystems (4th ed.). Malden, MA: Blackwell Publishing. <https://www.pdfdrive.com/ecology-from-individuals-to-ecosystems-e158515806.html>
- Sanderson, R.T. (1976). Chemical bonds and bond energy (2nd ed.). New York: Academic Press. <https://www.pdfdrive.com/chemical-bonds-and-bond-energy-e157794316.html>
- McGraw-Hill Ryerson high school biology 12.(n.d.). (n.p). <https://www.pdfdrive.com/mcgraw-hill-ryerson-high-school-biology-e176397103.html>
- Byron, Helen. (2000). Biodiversity Impact. Berkshire: Sandy. <https://www.pdfdrive.com/biodiversity-impact-biodiversity-and-environmental-impact-assessment-e50564353.html>
- Whittemore, Susan. (2004). Your Body. How It Works. The Circulatory System. New York: Infobase Publishing. <https://www.pdfdrive.com/your-body-how-it-works-the-circulatory-system-e158328556.html>

➤ FREE E-JOURNALS

- Physics Open. <https://www.sciencedirect.com/journal/physics-open>
- Physics and Chemistry of the Earth. <https://www.sciencedirect.com/journal/physics-and-chemistry-of-the-earth>
- Physics Letters. <https://www.sciencedirect.com/journal/physics-letters>
- Earth-Science Reviews. <https://www.sciencedirect.com/journal/earth-science-reviews>
- Energy. <https://www.sciencedirect.com/journal/energy>
- Electricity Journal. <https://www.sciencedirect.com/journal/the-electricity-journal>
- Biological Conservation. <https://www.sciencedirect.com/journal/biological-conservation>
- Agriculture, Ecosystems, & Environment. <https://www.sciencedirect.com/journal/agriculture-ecosystems-and-environment>

➤ FREE E-THESES

- Mujawamariya, M. (2021). Climate change sensitivity of photosynthesis and respiration in tropical trees. (Thesis). University of Gothenburg / Göteborgs Universitet. Retrieved from <http://hdl.handle.net/2077/67459>
- Tew, E. R. (2019). Forests of the future : ecosystem services in a forest landscape facing significant changes. (Doctoral Dissertation). University of Cambridge. Retrieved from

<https://doi.org/10.17863/CAM.45285> ;

<https://ethos.bl.uk/OrderDetails.do?uin=uk.bl.ethos.793125>

- Sengupta, P. (2018). Residential energy conservation: A quantitative analysis of conservation-attitude, conservation-intention and constraints in predicting perceived residential energy-efficiency. (Masters Thesis). University of Florida. Retrieved from <https://ufdc.ufl.edu/UFE0052406>
- Kovaka, K. (2017). Understanding innovation and imitation in evolution. (Thesis). University of Pennsylvania. Retrieved from <https://repository.upenn.edu/edissertations/2403>
- Shao, H. (2016). Mechanical-to-electrical energy conversion of piezoelectric nanofibres and conducting polymers. (Thesis). Deakin University. Retrieved from <http://hdl.handle.net/10536/DRO/DU:30095861>
- Cameron, R. P. (2014). On the angular momentum of light. (Doctoral Dissertation). University of Glasgow. Retrieved from <http://theses.gla.ac.uk/5849/>
- Woods, C. A. (2014). Respiratory carbon loss in plant tissues under environmental stress. (Doctoral Dissertation). University of Oxford. Retrieved from <http://ora.ox.ac.uk/objects/uuid:829338ba-7c5a-41b8-9cdd-ead4646e161e> ;
<https://ethos.bl.uk/OrderDetails.do?uin=uk.bl.ethos.658483>
- Wang, Zhengjun. (2016). Investigations into the nature of magnetism in transition-metal-phthalocyanines. (Dissertation). West Virginia University. Retrieved from <https://www.proquest.com/dissertations-theses/investigations-into-nature-magnetism-transition/docview/1829569302/se-2?accountid=190548>
- Swann, Abigail Lynn Segal. (2010). Ecoclimate: Variations, Interactions and Teleconnections. (Dissertation). University of California. Retrieved from <https://www.proquest.com/dissertations-theses/ecoclimate-variations-interactions/docview/1081722499/se-2?accountid=190548>
- Jacobsen, Karina M. (2008). Collision dynamics modeling of crash energy management passenger rail equipment. (Dissertation). Tufts University. Retrieved from <https://www.proquest.com/dissertations-theses/collision-dynamics-modeling-crash-energy/docview/304445717/se-2?accountid=190548>
- Nawaz, Shahid. (2014). Momentum and spin in entropic quantum dynamics. (Dissertation). State University of New York at Albany. Retrieved from <https://www.proquest.com/dissertations-theses/momentum-spin-entropic-quantum-dynamics/docview/1657352302/se-2?accountid=190548>
- Ebadi, Alireza. (2016). Transport of heat and momentum in non-equilibrium wall-bounded flows. (Dissertation). University of New Hampshire. Retrieved from <https://www.proquest.com/dissertations-theses/transport-heat-momentum-non-equilibrium-wall/docview/1868839532/se-2?accountid=190548>

C. PROFESSIONAL ORGANIZATIONS

- Association for Science Teacher Education. <https://theaste.org/>
- Philippine Physics Society. <https://philippinephysicsociety.org/>
- Association for Science Education. <https://www.ase.org.uk/>
- American Association of Physics Teachers. <https://www.aapt.org/>
- American Astronomical Society. <https://aas.org/>
- National Academy of Science and Technology. <https://www.nast.ph/>
- Academic and Scientific Research Organization. <http://asrongo.org/>

- Academia, Science, and Research Organizations. <https://ilsisea-region.org/our-partners/academia-science-and-research-organizations/>
- American Institute of Biological Science. <https://www.aibs.org/home/index.html>
- American Association for the Advancement of Science. <https://www.aaas.org/>

D. OTHER RELATED WEB PORTALS

- Ed Heads. <https://edheads.org/>
- Science Kids. <https://www.sciencekids.co.nz/gamesactivities.html>
- National Geographic Kids. <https://kids.nationalgeographic.com/>
- Wonderville. <https://wonderville.org/>
- Teacher Try Science. <http://teacherstryscience.us-east.mybluemix.net/>

E. RELATED RESEARCH GUIDES

- University of Wisconsin Whitewater. <https://libguides.uww.edu/scibus>
- Georgia Gwinnett College. https://libguides.ggc.edu/sb.php?subject_id=99002
- JMU Libraries. https://guides.lib.jmu.edu/sb.php?subject_id=65004
- University of Wisconsin-Madison Libraries. <https://researchguides.library.wisc.edu/expbio100>
- Catawba Library. <https://catawba.libguides.com/c.php?g=630002>

IV. TUTORIALS

- The mole and Avogadro's number. <https://www.khanacademy.org/science/ap-chemistry-beta/x2eef969c74e0d802:atomic-structure-and-properties/x2eef969c74e0d802:moles-and-molar-mass/v/the-mole-and-avogadro-s-number>
- Average atomic mass. <https://www.khanacademy.org/science/ap-chemistry-beta/x2eef969c74e0d802:atomic-structure-and-properties/x2eef969c74e0d802:moles-and-molar-mass/v/average-atomic-mass>
- Photosynthesis. <https://www.khanacademy.org/science/ap-biology/cellular-energetics/photosynthesis/v/photosynthesis>
- Introduction to evolution and natural selection. <https://www.khanacademy.org/science/high-school-biology/hs-evolution/hs-evolution-and-natural-selection/v/introduction-to-evolution-and-natural-selection?modal=1>
- Respiratory and circulatory systems. <https://www.youtube.com/watch?v=1Ti5Z37babs>
- Types of volcano and volcanic eruption. <https://www.youtube.com/watch?v=l1gCzKglill>
- Momentum and impulse/Collision of objects. https://www.youtube.com/watch?v=jsnBc5CXU_w
- Heat, work and energy. First law of thermodynamics. <https://www.youtube.com/watch?v=vAFcRL7dQfA>
- Faraday's Law for Generating Electricity. <https://www.khanacademy.org/science/physics/magnetic-forces-and-magnetic-fields/magnetic-flux-faradays-law/v/faradays-law-for-generating-electricity>
- Power. <https://www.khanacademy.org/science/ap-physics-1/ap-work-and-energy/power-ap/v/power>
- Impulse and momentum dodgeball example. <https://www.khanacademy.org/science/physics/linear-momentum/momentum-tutorial/v/impulse-and-momentum-dodgeball-example>



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