

References

- AAUW. 2010. *Why So Few? Women in Science, Technology, Engineering, and Mathematics*. Washington, D.C.: American Association of University Women.
- Aiello, Allison Elizabeth, Elaine Larson, and Richard Sedlak. 2007. "Against Disease: The Impact of Hygiene and Cleanliness on Health." Washington, D.C.: Soap and Detergent Association.
- Alpha, Tau Rho, and John C. Lahr. 1990. "How to Construct Seven Paper Models that Describe Faulting of the Earth." Menlo Park, CA: United States Geological Survey. <https://www.cde.ca.gov/ci/sc/cf/ch8.asp#link90>
- Amitchell125. 2011. "Two Small Test Tubes Held in Spring Clamps." Posted at *Wikimedia Commons*, <https://www.cde.ca.gov/ci/sc/cf/ch8.asp#link91>
- Antunes, José Leopoldo Ferreira, and Eliseu Alves Waldman. 1999. "Tuberculosis in the Twentieth Century: Time-Series Mortality in São Paulo, Brazil, 1900–97." *Cadernos de Saúde Pública* 15 (3).
- Baram-Tsabari, Ayelet, and Anat Yarden. 2011. "Quantifying the Gender Gap in Science Interests." *International Journal of Science and Mathematics Education* 9 (3): 523–550.
- Black, Newton Henry, and Harvey N. Davis. 1913. *Practical Physics*. New York: MacMillan. Posted at *Wikimedia Commons*, <https://www.cde.ca.gov/ci/sc/cf/ch8.asp#link92>
- BP Statistical Review of World Energy. 2016. *Statistical Review of World Energy*. <https://www.cde.ca.gov/ci/sc/cf/ch8.asp#link93>
- Buggy and Buddy. 2014. Egg Drop Challenge with Free Planning Printable. <https://www.cde.ca.gov/ci/sc/cf/ch8.asp#link94>
- Byteworks. 2011. "Using techBASIC to Turn Your iPhone or iPad into a Metal Detector." <https://www.cde.ca.gov/ci/sc/cf/ch8.asp#link95>
- California Climate Change Center. 2006. *Our Changing Climate: Assessing the Risks to California*. Sacramento: California Climate Change Center.
- California Coastal Records Project. 2017. Esplanade Apartments, Pacifica, Red-Tagged Due to Cliff Erosion. <https://www.cde.ca.gov/ci/sc/cf/ch8.asp#link96>
- California Department of Conservation. 2015. *Regulatory Maps*. <https://www.cde.ca.gov/ci/sc/cf/ch8.asp#link97>
- Cinedoku Vorarlberg. 2009. "Hoher Ifen Sommer Kleinwalsertal Bregenzerwald Hanno Thurnher Filmproduktion." Posted at *Wikimedia Commons*, <https://www.cde.ca.gov/ci/sc/cf/ch8.asp#link98>
- Clker-Free-Vector-Images. 2012. "Baseball Sports Glove." Posted at *Pixabay*, <https://www.cde.ca.gov/ci/sc/cf/ch8.asp#link99>
- Cold Spring Harbor Laboratory. N.d. Album Bernay (1876-93) Illustration of Pea Plants. <https://www.cde.ca.gov/ci/sc/cf/ch8.asp#link100>
- d'Alessio, Matthew. N.d. Plate Boundaries Velocities. <https://www.cde.ca.gov/ci/sc/cf/ch8.asp#link101>
- Debivort. 2006. "Coquina Variation3." Posted at *Wikipedia*, <https://www.cde.ca.gov/ci/sc/cf/ch8.asp#link102>
- Delaney, David. 2003. "The Inverted Solar Box Cooker." Posted at *Solar Cookers International Network*, <https://www.cde.ca.gov/ci/sc/cf/ch8.asp#link103>

- Dettinger, Michael D., Fred Martin Ralph, Tapash Das, Paul J. Neiman, and Daniel R. Cayan. 2011. "Atmospheric Rivers, Floods and the Water Resources of California." *Water* 3 (2): 445–478.
- Ecosphere Associates Inc. 2013. "Oval Ecosphere." Posted at *Wikipedia*, <https://www.cde.ca.gov/ci/sc/cf/ch8.asp#link104>
- Encyclopaedia Britannica. 2008. Biogeochemical Cycle. <https://www.cde.ca.gov/ci/sc/cf/ch8.asp#link105>
- Environmental Management 2016 Wiki. 2016. Biodiversity Cartoon. <https://www.cde.ca.gov/ci/sc/cf/ch8.asp#link106>
- Farmer, Jack D. 2000. "Hydrothermal Systems: Doorways to Early Biosphere Evolution." *GSA Today* 10 (7): 1–9. <https://www.cde.ca.gov/ci/sc/cf/ch8.asp#link107>
- Feldman, Allan, Michele L. Cooke, and Mary S. Ellsworth. 2010. "The Classroom Sandbox: A Physical Model for Scientific Inquiry." *Science Teacher* 77 (9): 58–62.
- Gallant, V., Susanna Ogunnaike-Cooke, and M. McGuire. 2014. "Tuberculosis in Canada: 1924-2012." *Canada Communicable Disease Report CCDR* Volume 40-6. Ottawa: Public Health Agency of Canada. <https://www.cde.ca.gov/ci/sc/cf/ch8.asp#link108>
- Genomics Education Programme. 2014. "The Cell Cycle." Posted at *Flickr*, <https://www.cde.ca.gov/ci/sc/cf/ch8.asp#link109>
- Geophysical Fluid Dynamics Laboratory. 2007. "GFDL Climate Modeling Research Highlights." <https://www.cde.ca.gov/ci/sc/cf/ch8.asp#link110>
- Gerlach, Terry. 2011. "Volcanic Versus Anthropogenic Carbon Dioxide." *Eos Transactions, American Geophysical Union* 92 (24): 201.
- Giardino, Gisela. 2006. "Cosmos on My Desk: Light Energy." Posted at *Flickr*, <https://www.cde.ca.gov/ci/sc/cf/ch8.asp#link111>
- Goh, Ngoh Khang, Lian Sai Chia, and Daniel Tan. 1994. "Some Analogies for Teaching Atomic Structure at the High School Level." *Journal of Chemical Education* 71 (9): 733.
- Gould, John. 1882. "Darwin's Finches by Gould." Posted at *Wikimedia Commons*, <https://www.cde.ca.gov/ci/sc/cf/ch8.asp#link112>
- Grant, Rosemary B., and Peter R. Grant. 2003. "What Darwin's Finches Can Teach Us about the Evolutionary Origin and Regulation of Biodiversity." *Bioscience* 53 (10): 965–975.
- Hanson, Randall, Alan Flint, Lorraine Flint, Claudia Faunt, Wolfgang Schmid, M.D. Dettinger, Stanley Leake, and Daniel Cayan. 2010. "Integrated Simulation of Consumptive Use and Land Subsidence in the Central Valley, California, for the Past and for a Future Subject to Urbanization and Climate Change." *Land Subsidence, Associated Hazards and the Role of Natural Resources Development*. Proceedings of EISOLS 2010, Querétaro, Mexico, October 2010.
- Headquarters Department of the Army. 2012. "MC-3 Open Parachute." Posted at *Wikimedia Commons*, <https://www.cde.ca.gov/ci/sc/cf/ch8.asp#link113>
- Herr, Norman. 2008. *The Sourcebook for Teaching Science—Strategies, Activities, and Instructional Resources*. San Francisco: Jossey-Bass.
- Hestenes, David. 1998. "Who Needs Physics Education Research?" *American Journal of Physics* 66: 465–467.

- Hey Paul. 2003. "2003 San Simeon Earthquake Damage." Posted at *Wikimedia Commons*, <https://www.cde.ca.gov/ci/sc/cf/ch8.asp#link114>
- Holland, Heinrich D. 2006. "The Oxygenation of the Atmosphere and Oceans." *Philosophical Transactions of the Royal Society of London B: Biological Sciences* 361 (1470): 903–915.
- IBISWorld. 2013. World Population Growth chart. <https://www.cde.ca.gov/ci/sc/cf/ch8.asp#link115>
- Institute of Physics. 2006. *Girls in the Physics Classroom: A Teachers' Guide for Action*. London: Institute of Physics. Institute of Physics Report.
- Jha, Saurabh, Adam G. Riess, and Robert P. Kirshner. 2007. "Improved Distances to Type Ia Supernovae with Multicolor Light-Curve Shapes: MLCS2k2." *The Astrophysical Journal* 659 (1).
- Joyce, Brian, Sebastian Vicuña, Larry Dale, John Dracup, Michael Hanemann, David Purkey, and David Yates. 2006. *Climate Change Impacts on Water for Agriculture in California: A Case Study in the Sacramento Valley*. Sacramento: California Climate Change Center.
- Kelvin, William Thomson. 1854. "On the Mechanical Energies of the Solar System." *Transactions of the Royal Society of Edinburgh* 21. <https://www.cde.ca.gov/ci/sc/cf/ch8.asp#link116>
- Kirshner, Robert P. 2004. "Hubble's Diagram and Cosmic Expansion." *Proceedings of the National Academy of Sciences of the United States of America* 101 (1): 8–13.
- Kounce, Eric. 2008. "West Texas Pumpjack." Posted at *Wikimedia Commons*, <https://www.cde.ca.gov/ci/sc/cf/ch8.asp#link117>
- KTEditor. 2014. "Car, Transportation, Automobile, Auto, Sport, Black." Posted at *Pixabay*, <https://www.cde.ca.gov/ci/sc/cf/ch8.asp#link118>
- LeConte, Joseph. 1892. *Elements of Geology: A Textbook for Colleges and for the General Reader*. New York: D. Appleton and Co.
- Legislative Analyst's Office. 2010. "Liquid Assets: Improving Management of the State's Groundwater Resources." <https://www.cde.ca.gov/ci/sc/cf/ch8.asp#link119>
- Ligtenberg, Allart. N.d. "Solar Trekkers Cooker." Posted at *Solar Cookers International Network*, <https://www.cde.ca.gov/ci/sc/cf/ch8.asp#link120>
- Livermore Software Technology Corporation. 2017. Livermore, CA. <https://www.cde.ca.gov/ci/sc/cf/ch8.asp#link121>
- Lodders, Katharina. 2003. "Solar System Abundances and Condensation Temperatures of the Elements." *The Astrophysical Journal* 591(2): 1220.
- Mehta, Aalok. 2007. "Oldest Known Ocean Crust Found on Greenland." *National Geographic News*. <https://www.cde.ca.gov/ci/sc/cf/ch8.asp#link122>
- Moser, Susanne, Julia Ekstrom, and Guido Franco. 2012. *Our Changing Climate 2012: Vulnerability and Adaptation to the Increasing Risks from Climate Change in California*. Sacramento: California Natural Resources Agency.
- NASA. 2003a. "Earth's Inconstant Magnetic Field." <https://www.cde.ca.gov/ci/sc/cf/ch8.asp#link123>
- . 2003b. "The Inconstant Sun." *Science @ NASA*. <https://www.cde.ca.gov/ci/sc/cf/ch8.asp#link124>
- . 2008. LAMBDA Data Products, Mollweide Image. <https://www.cde.ca.gov/ci/sc/cf/ch8.asp#link125>
- . 2010. X-ray Emission from Atoms. <https://www.cde.ca.gov/ci/sc/cf/ch8.asp#link126>

- . 2015. “Solution for Graphing Spectra Student Worksheet, Part II.” <https://www.cde.ca.gov/ci/sc/cf/ch8.asp#link127>
- NASA’s Earth Observatory. 2013. Long-Term Global Warming Trend Continues. <https://www.cde.ca.gov/ci/sc/cf/ch8.asp#link128>
- NASA, ESA, and the Hubble SM4 ERO Team/Space Telescope Science Institute. 2009. “Galactic Wreckage in Stephan’s Quintet.” <https://www.cde.ca.gov/ci/sc/cf/ch8.asp#link129>
- National Astronomical Observatory of Japan, Institute of Space and Astronautical Science/Japan Aerospace Exploration Agency. 2006. Press Release of XRT/Hinode Initial Results, Full Sun Movie, Image in Pseudo-Color (Red). <https://www.cde.ca.gov/ci/sc/cf/ch8.asp#link130>
- National Energy Education Development Project. 2012a. *Exploring Oil and Gas*. Manassas: The NEED Project. <https://www.cde.ca.gov/ci/sc/cf/ch8.asp#link131>
- . 2012b. *The Great Energy Debate*. Manassas: The NEED Project. <https://www.cde.ca.gov/ci/sc/cf/ch8.asp#link132>
- National Highway Traffic Safety Administration. 2016. 2016 Audi A4 4 DR FWD. <https://www.cde.ca.gov/ci/sc/cf/ch8.asp#link133>
- . 2015. If You’re Pregnant: Seat Belt Recommendations For Drivers and Passengers. <https://www.cde.ca.gov/ci/sc/cf/ch8.asp#link134>
- National Oceanic and Atmospheric Administration (NOAA). 2015. Glacial-Interglacial Cycles. <https://www.cde.ca.gov/ci/sc/cf/ch8.asp#link135>
- . 2016. Trends in Atmospheric Carbon Dioxide. <https://www.cde.ca.gov/ci/sc/cf/ch8.asp#link136>
- National Oceanic and Atmospheric Administration, Earth System Research Laboratory. 2015. SSMI Water Vapor. <https://www.cde.ca.gov/ci/sc/cf/ch8.asp#link137>
- National Oceanic and Atmospheric Administration, National Centers for Environmental Information. 2008. Age of Oceanic Lithosphere. <https://www.cde.ca.gov/ci/sc/cf/ch8.asp#link138>
- National Oceanic and Atmospheric Administration/National Geophysical Data Center (NOAA/NGDC). 1964. Leaning Apartment Houses in Niigata, Japan. <https://www.cde.ca.gov/ci/sc/cf/ch8.asp#link139>
- NOAA/NGDC, University of Colorado at Boulder. 1979. Offset of Lettuce Rows Across Fault, El Centro, California. <https://www.cde.ca.gov/ci/sc/cf/ch8.asp#link140>
- NOAA/NGDC, U.S. Geological Survey. 1980. Fallen Bookcases at the Lawrence Livermore Lab. <https://www.cde.ca.gov/ci/sc/cf/ch8.asp#link141>
- National Research Council. 2012. *A Framework for K–12 Science Education: Practices, Crosscutting Concepts, and Core Ideas*. Washington, D.C.: The National Academies Press.
- NGSS Lead States. 2013a. Appendix M—Connections to the Common Core State Standards for Literacy in Science and Technical Subjects. <https://www.cde.ca.gov/ci/sc/cf/ch8.asp#link142>
- . 2013b. Executive Summary. <https://www.cde.ca.gov/ci/sc/cf/ch8.asp#link143>
- . 2013c. High School Earth and Space Sciences Storyline. <https://www.cde.ca.gov/ci/sc/cf/ch8.asp#link144>
- . 2013d. High School Life Sciences DCI Storyline. <https://www.cde.ca.gov/ci/sc/cf/ch8.asp#link145>
- . 2013e. High School Life Sciences Topic Storyline. <https://www.cde.ca.gov/ci/sc/cf/ch8.asp#link146>

- . 2013f. High School Physical Sciences Storyline. <https://www.cde.ca.gov/ci/sc/cf/ch8.asp#link147>
- Norton, Andrew. 2000. *Dynamic Fields and Waves*. Boca Raton, FL: CRC Press.
- Novak, F.J. and H. Brunner. 1992. "Plant Breeding: Induced Mutation Technology for Crop Improvement." *IAEA Bulletin* 34 (4): 25–33.
- Official Statistics of Finland. 2010. "Causes of Death: Mortality from Diseases in 1936 to 2010." Helsinki: Statistics Finland. <https://www.cde.ca.gov/ci/sc/cf/ch8.asp#link148>
- OpenClipart-Vectors. 2013a. "Baseball, Ball, Sports, Equipment." Posted at *Pixabay*, <https://www.cde.ca.gov/ci/sc/cf/ch8.asp#link149>
- . 2013b. "Motorcycle, Helmet, Protection, Safety, Visor, Headwear." Posted at *Pixabay*, <https://www.cde.ca.gov/ci/sc/cf/ch8.asp#link150>
- . 2013c. "Tool, Compasses, Circle, Hand." Posted at *Pixabay*, <https://www.cde.ca.gov/ci/sc/cf/ch8.asp#link151>
- OpenStax College. 2013. "207 Ionic Bonding-01." Posted at *Wikimedia Commons*, <https://www.cde.ca.gov/ci/sc/cf/ch8.asp#link152>
- O'Sullivan, Damian. 2009. "Hot Cold Mug." Posted at *Wikimedia Commons*, <https://www.cde.ca.gov/ci/sc/cf/ch8.asp#link153>
- Ousley, Emalee. 2013. "Solar Oven Cookie Physics Project." Posted at *YouTube*, <https://www.cde.ca.gov/ci/sc/cf/ch8.asp#link154>
- Parker, Ann. 2007. "Climate and Agriculture: Change Begets Change." *Science and Technology Review* March 2007.
- Pbech. 2008. "Schematic Representation of Deuterium-Tritium Nuclear Fusion, in Dutch." Posted at *Wikimedia Commons*, <https://www.cde.ca.gov/ci/sc/cf/ch8.asp#link155>
- PollyDot. 2014. "Bees, Honey, Honey Bees, Honeycomb, Combs, Beehive." Posted at *Pixabay*, <https://www.cde.ca.gov/ci/sc/cf/ch8.asp#link156>
- Privat-Deschanel, Agustin. 1876. *Elementary Treatise on Natural Philosophy, Part 3: Electricity and Magnetism*, translated by J.D. Everett. New York: D. Appleton and Co. <https://www.cde.ca.gov/ci/sc/cf/ch8.asp#link157>
- PublicDomainPictures. 2013. "DNA, Biology, Medicine, Gene, Microbiology, Analysis." Posted at *Pixabay*, <https://www.cde.ca.gov/ci/sc/cf/ch8.asp#link158>
- Public Health England. n.d. "Tuberculosis Mortality and Mortality Rate, England and Wales, 1913–2013." <https://www.cde.ca.gov/ci/sc/cf/ch8.asp#link159>
- Reiring, Ron. 2009. "Los Angeles River." Posted at *Wikimedia Commons*, <https://www.cde.ca.gov/ci/sc/cf/ch8.asp#link160>
- RJHall. 2010. "Ionization Energies." Posted at *Wikimedia Commons*, <https://www.cde.ca.gov/ci/sc/cf/ch8.asp#link161>
- The Royal Society. 2014. "7. Is the Current Level of Atmospheric CO₂ Concentration Unprecedented in Earth's History?" <https://www.cde.ca.gov/ci/sc/cf/ch8.asp#link162>
- Saff, Kevin. 2004. "Carbon Cycle-Cute Diagram." Posted at *Wikimedia Commons*, <https://www.cde.ca.gov/ci/sc/cf/ch8.asp#link163>
- San Francisco Fire Department. 1989. 1989 Earthquake and Fire: Marina District. <https://www.cde.ca.gov/ci/sc/cf/ch8.asp#link164>

- Seigmund, Walter. 2006. "Vernal Fall." Posted at *Wikimedia Commons*, <https://www.cde.ca.gov/ci/sc/cf/ch8.asp#link165>
- Sloan Digital Sky Survey/Sky Server. N.d.a. API: Programmer's Interface. <https://www.cde.ca.gov/ci/sc/cf/ch8.asp#link166>
- . N.d.b. The Expanding Universe. <https://www.cde.ca.gov/ci/sc/cf/ch8.asp#link167>
- Solar Cookers International. 2005. In "Solar Cookers in Nyakach: a Youth Perspective," edited by Kevin Porter. *Solar Cooker Review* 11 (3). <https://www.cde.ca.gov/ci/sc/cf/ch8.asp#link168>
- Southwestern Universities Research Association. 2006. Chart of the Electromagnetic Spectrum. <https://www.cde.ca.gov/ci/sc/cf/ch8.asp#link169>
- Stefan-Xp. 2009. "Nuclear Fission of Uranium-235." Posted at *Wikimedia Commons*, <https://www.cde.ca.gov/ci/sc/cf/ch8.asp#link170>.
- Thomas Jefferson National Accelerator Facility—Office of Science Education. 2015a. Glossary, Alpha Decay. <https://www.cde.ca.gov/ci/sc/cf/ch8.asp#link171>
- . 2015b. Glossary, Beta Decay. <https://www.cde.ca.gov/ci/sc/cf/ch8.asp#link172>
- Tkgd2007. 2008. "Human Evolution." Posted at *Wikimedia Commons*, <https://www.cde.ca.gov/ci/sc/cf/ch8.asp#link173>
- United States Census Bureau. 1975. *Historical Statistics of the United States: Colonial Times to 1970, Bicentennial Edition, Part 1*. Washington, D.C.: United States Census Bureau. <https://www.cde.ca.gov/ci/sc/cf/ch8.asp#link174>
- United States Geological Survey (USGS). 1995. "Inventory of Landslides Triggered by the 1994 Northridge, California Earthquake" <https://www.cde.ca.gov/ci/sc/cf/ch8.asp#link175>
- . 2005. Putting Down Roots in Earthquake Country. <https://www.cde.ca.gov/ci/sc/cf/ch8.asp#link176>
- . 2008. USGS ShakeMap: ShakeOut M7.8 Scenario V2. In *The ShakeOut Earthquake Scenario—A Story that Southern Californians are Writing*, by Suzanne Perry, Dale Cox, Lucile Jones, Richard Bernknopf, James Goltz, Kenneth Hudnut, Dennis Mileti, Daniel Ponti, Keith Porter, Michael Reichle, Hope Seligson, Kimberley Shoaf, Jerry Treiman, and Anne Wein. U.S. Geological Survey Circular 1324 and California Geological Survey Special Report 207. <https://www.cde.ca.gov/ci/sc/cf/ch8.asp#link177>
- . 2012. "1906 Marked the Dawn of the Scientific Revolution." <https://www.cde.ca.gov/ci/sc/cf/ch8.asp#link178>
- . 2015. School Yard Geology. <https://www.cde.ca.gov/ci/sc/cf/ch8.asp#link179>
- United States Geological Survey/Photo by Charles E. Meyer. 1999. "6. Ground View of Collapsed Building and Burned Area Shown in Photo 4, Beach and Divisadero, Marina District." <https://www.cde.ca.gov/ci/sc/cf/ch8.asp#link180>
- United States Geological Survey/Photo by R.L. Schuster. 1994. "La Conchita." In *Landslide Types and Processes*, USGS Fact Sheet 2004-3072. <https://www.cde.ca.gov/ci/sc/cf/ch8.asp#link181>
- The University of Texas McDonald Observatory. 2014. Reflective Solar Cooker. <https://www.cde.ca.gov/ci/sc/cf/ch8.asp#link182>
- Unsplash. 2015. "Forestry, Logging, Deforestation, Timber, Lumber." Posted at *Pixabay*, <https://www.cde.ca.gov/ci/sc/cf/ch8.asp#link183>

- Ventana Wildlife Society. N.d. California Condor Recovery: Reintroducing the California Condor to Big Sur. <https://www.cde.ca.gov/ci/sc/cf/ch8.asp#link184>
- Wellcome Images. 2011. "B0003294 Human Melanoma Cell Dividing." Posted at *Flickr*, <https://www.cde.ca.gov/ci/sc/cf/ch8.asp#link185>
- Wereon. 2006. "Spectrum." Posted at *Wikimedia Commons*, <https://www.cde.ca.gov/ci/sc/cf/ch8.asp#link186>
- WGBH. N.d. Carbon Dioxide and the Carbon Cycle. <https://www.cde.ca.gov/ci/sc/cf/ch8.asp#link187>
- Wikipedia. 2016. "History of Tuberculosis." <https://www.cde.ca.gov/ci/sc/cf/ch8.asp#link188>
- . 2017. "Standard Enthalpy of Formation." <https://www.cde.ca.gov/ci/sc/cf/ch8.asp#link189>
- Willett, Sean D. 1999. "Orogeny and Orography: The Effects of Erosion on the Structure of Mountain Belts." *Journal of Geophysical Research: Solid Earth* 104 (B12): 28957-28981.
- The Worlds of David Darling. 2015. Encyclopedia of Science, Le Châtelier's Principle. <https://www.cde.ca.gov/ci/sc/cf/ch8.asp#link190>