Adams, J.B. 2003. "Proxy evidence for an El Niño-like response to volcanic forcing". *Nature* 426: 274 -278, (2003). Eruptions make natural climate swings twice as likely.

Allen, J. E., et al. 1991. *Cataclysms on the Columbia: A Layman's Guide to the Features Produced by the Catastrophic Bretz Floods in the Pacific Northwest*. Timber Press. Describes the dramatic floods that produced Washington's scablands.

Alt, David D. 2001. *Glacial Lake Missoula and Its Humongous Floods* Mountain Press. The scablands of eastern Washington state were formed by catastrophic floods with greater flow than all the modern rivers of the world.

Alvarez, Walter., et al. 1990. "What Caused the Mass Extinction?" *Scientific American* 263 (4): 76-81. The debate over asteroids or volcanoes as the cause of extinction.

Alvarez, Luis W., et al. 1980. "Extraterrestrial cause for the Cretaceous-Tertiary extinction." *Science* 208: 1095-1108. Ground-breaking evidence for an asteroid impact.

Anderson, Jack and Michael Binstein. 1996. "Greed is sinking tiny Pacific nation." *The Washington Post* v119 pB14 col 4. Nauru faces ecological disaster after uncontrolled mining of guano deposits.

Armstrong, J. and R. Menon. 1998. "Mining and Quarrying." In J.M. Stellman (ed) *Encyclopedia of Occupational Health and Safety* 4th ed. Geneva: International Labour Organization. A summary of the health and safety risks in mining.

Ayres, Ed. 2004. "The Hidden Shame of the Global Industrial Economy." *World-Watch* 17 (1): 20. Where do the raw materials on which our economy depends come from, and what are the environmental and social costs of their extraction?

Bawden, G. W., et al. 2001. "Tectonic contraction across Los Angeles after removal of groundwater pumping effects." *Nature*, 412, 812 - 815, (2001). Los Angeles rises and falls by as much as 11 cm each year due to groundwater pumping.

Bearce, Neil R. 1999. *Minerals of Arizona : A Field Guide for Collectors* Geoscience Press. One of many guides to mineral collecting.

Becker, Luann. 2002. "Repeated Blows." *Scientific American* 286 (3): 76-83. The discovery of noble gases trapped in fullerenes suggests that many great extinction events may have been caused by asteroid impacts.

Belcher, C.M., et al. 2003. "Fireball passes and nothing burns-The role of thermal radiation in the Cretaceous-Tertiary event: Evidence from the charcoal record of North America." *Geology* 31:1061 -1064. Lack of charcoal in sediments laid down 65 million years ago suggest that dinosaurs didn't die from global fires set by meteor fragments.

Bissell, Tom. 2003. "A comet's tale." *Harper's Magazine* 306 (1833): 33-47 February 2003. An entertaining story about the scientists who study the possibility of an asteroid hitting the earth.

Bonatti, E. 1994. "The Earth's mantle below the oceans," *Scientific American* 270 (3): 44-50. Deep undersea exploration is challenging our understanding of plate tectonic movements.

Brendan, J. M., and R. D. Nance. 1992. "Mountain Belts and the Supercontinent Cycle," *Scientific American* 266 (4): 84-90. A good discussion of the current status of plate tectonic theory.

Brimhall, G. 1991. "The Genesis of Ores," *Scientific American* 264 (5): 84-90. Explains how fluid transport builds up the ore bodies from which we obtain economic minerals.

Bruce, Viicotia. 2001. *No Apparent Danger: The True Story of volcanic Disaster at Galeras and Nevado Del Ruiz*. Harpers. Describes the 1985 eruption and mud slide of Nevado Del Ruiz that burried 23,000 people as well as the 1993 eruption of Galeras in which nine geologists were killed while exploring the inside of the volcano crater.

Budd, P., et al. 2004. "Human lead exposure in England from approximately 5500 bp to the 16th century AD." *The Science of the Total Environment* 318 (1-3): 45-58. Metal smelting has left a measurable trace in sediments through history.

Busch, Richard M. (ed). 1999. *Laboratory Manual in Physical Geology*. Prentice Hall. richly illustrated text/CD-ROM manual for teaching laboratories in geology and geoscience.

Cane, Mark A. and Peter Molnar. 2002. "Closing of the Indonesian seaway as a precursor to east African aridification, around 3–4 million years ago." *Nature* 411, 157 - 162; doi:10.1038/35075500. Closure of the Indonesian seaway as New Guinea drifted northward 3 Myr ago may have lead to Pleistocene glaciation and influenced the evolution of hominids via the aridification of Africa.

Caudill, Harry M. 1963. *Night Comes to the Cumberlands*. Atlantic-Little, Brown. An eloquent but anguished lament for what strip-mining has done to Appalachia.

Chesterman, Charles W. 1979. *National Audubon Society Field Guide to North American Rocks and Minerals*. Random House. An good illustrated guide to rock and mineral identification.

Chiles, J. 1986. "Standing Up to Earthquakes," *Invention and Technology* 2 (2): 56-60. Discusses methods to build earthquake-proof buildings and cities.

Chronic, Halka. 1987. *Roadside Geology of New Mexico*. Mountain Press Publishing. One in the Roadside Geology Series that now covers nearly every state.

Clark, George R. 1995. "the quake that swallowed a city," *Earth* 4 (2): 34-39. A 17th century earthquake destroyed Port Royal, Jamaica, the pirate capital of the world.

Darlington, D. 1992. "Copper Versus Grandeur," *Audubon* 94 (4): 84-88. Describes now-postponed plans to mine British Columbia's Windy Craggy Mountain and threats to the adjacent Tatshenshini River.

Davidson, Keay. 1994. "Predicting Earthquakes." *Earth* 3 (3): 56-59. The 1994 The earth and its movements are more complex than we thought.

Dixon, Dougal. 1997. *The Practical Geologist*. Fireside Books. A brief introduction to geology for beginners.

Dewey, J. F. 1972. "Plate tectonics." *Scientific American* 22: 56-68 A good description of continental drift.

Drasch, G., et al. 2001 "The Mt. Diwata study on the Philippines 1999 - assessing mercury intoxication of the population by small scale gold mining" *The Science of the Total Environment*, 267 (1 - 3): 151-168. Mercury is often used to capture gold in mining operations. Its release into the environment is hazardous for living organisms.

Ellwood, Brooks B., et al. 2003. "Impact Ejecta Layer from the Mid-Devonian: Possible Connection to Global Mass Extinctions." *Science* 300 (5626): 1734-1737. Reports evidence for an asteroid impact in the mid-Devonian (~380 million years ago) that may have led to the extinction of as many as 40% of all living marine animal genera.

George, Richard L. 1998. "Mining for Oil" *Scientific American* 278 (3): 84-85. Tar sands and oil shales in Canada contain more petroleum than Saudi Arabia's reserves. Can they be mined safely?

Gonzalez Frank I. 1999. "Tsunami!" *Scientific American.* 280 (5): 56-65. A chilling discussion of the sources and effects of monstrous waves.

Greer, J. 1993. "The Price of Gold: Environmental Costs of the New Gold Rush," *Ecologist* 23 (3): 91-95. A worldwide overview of the environmental effects of precious metal mining.

Grosser, J. R., et al. 1994. "Heavy metals in stream sediments in a gold-mining area near Los Andes, Colombia," *Ambio* 23 (2): 146-150. Small-scale gold mining releases toxic metals into streams.

Gulbrandsen, R. A., et al. 1978. *Gold, silver, and other resources in the ash of incinerated sewage sludge at Palo Alto, California—a preliminary report.* U.S. Geological Survey Circular 784. U.S. Department of the Interior. Municipal wastes can be a source of valuable resources.

Gurnis, Michael. 2001. "Sculpting the Earth from Inside Out," *Scientific American* 284(3):40-47. A good description of plate tectonics.

Heki, K. Snow load and seasonal variation of earthquake occurrence in Japan. Earth and Planetary Science Letters, published online, doi:10.1016/S0012-821X(02)01148-2 (2003). As Japan's snow melts, it may trigger earthquakes.

Hofmann, A.W. 1997. "Early Evolution of Continents," *Science* 275:498. Geochemical methods are beginning to give some answers to questions about the early evolution of continents.

Holloway, Marguerite. 2000. "The Killing Lakes." *Scientific American* 283(1): 92-99. CO2 released from Lake Nyos in Cameroon killed 1,700 people and their livestock in 1986. Scientists are studying how to prevent a repeat of this tragedy.

Horner, Jack and John R. Horner. 2001. *Dinosaurs : Under the Big Sky*. From the geologic history of the state to fossil finds and techniques for collecting, this book will appeal to all would-be dinosaur hunters.

Hyndman, Roy. D. 1995. "Giant earthquakes of the Pacific Northwest," *Scientific American* 273 (6): 68-75. Studies show that massive quakes and tsunamis have struck the northwest coast of America in the past.

Irwin, Sue. 1992. *California's Eastern Sierra: A Visitor's Guide*. Cachuma Press. An introduction to the geology and natural history of the Great Basin and Mojave Desert.

Johnson, A. C., and L. R. Kanter. 1990. "Earthquakes in Stable Continental Crust," *Scientific American*. 262 (3): 68-70. A theory of how earthquakes can occur well away from the edges of tectonic plates.

Kappele, William A. 1998. *Rockhounding Nevada (FalconGuide)*. Falcon Publishing Co. One of many guides to mineral collecting.

Kennedy, Danny. 1997. "US Mine Gouges for Gold," *Earth Island Journal* 12(2):24. A chilling report on Freeport-McMoRan's Indonesian operation.

Koshimura, S., Mofjeld, H. O., González, F. I. & Moore, A. L. 2002. "Modelling the 1100bp paleotsunami in Puget Sound, Washington". *Geophysical Research Letters*, published online, doi:10.1029/2002GL015170 (2002). About 1,000 years ago a giant tsunami hit the area now occupied by Seattle, WA.

Lambert, David. 1997. *The Field Guide to Geology*. Facts on File. A practical guide for beginners.

Lee, M.-Y., et al., 2004. "First Toba supercruption revival." *Geology*, 32, 61-64, doi:10.1130/G19903.1 (2004). Super-eruptions of volcanoes might not be as environmentally devastating as we thought.

Le Pichon, X. 1968. "Seafloor spreading and continental drift." *Journal of Geophysical Research* 73: 3661-3697. A classic in the field.

McClintock, J. 1999. "Under the Volcano," *Discover* November 1999: 83-89. The greatest geologic hazard in America may well be Mt. Rainier, which looms over suburban Seattle.

McGeary, David, Charles C. Plummer, Diane H. Carlson. 2000. *Physical Geology : Earth Revealed*. McGraw Hill Co. An introduction to geology for non-science majors. T

McPhee, John A. 2000. *Annals of the Former World* Farrar Straus & Giroux. A compilation of four previous books on the geology of North America (Basin and Range, In Suspect Terrain, Rising from the Plains, and Assembling California) by a master writer.

McPhee, John. 1990. *The Control of Nature*. Noonday Press. Three fascinating examples of heroic human attempts to control geologic forces.

Merkel, Sebastien. 2004. "Earth Science: The mantle deformed." *Nature* 428 (6985): 812-813. New experiments illustrate how the main constituent of the lower mantle may behave.

Meyer, H. O. A. 1985. "Genesis of diamond: A mantle saga." *American Mineralogist* 70: 344-355. Describes how diamonds are formed.

Mineral Policy Center. 1997. *Golden Dreams, Poisoned Streams*. Mineral Policy Center. Assesses the destructive impact hardrock mining has on water resources.

Montgomery, C. W. 2002. *Environmental Geology* 6th ed.). WCB/McGraw-Hill Co. Geology from an environmental perspective.

Mueller, Karl, et al. 2004. "Analysing the 1811-1812 New Madrid earthquakes with recent instrumentally recorded aftershocks." *Nature*. 429 (6989): 284-288. Reanalysis of North America's largest recorded earthquake results suggest that future large mid-plate earthquake sequences may extend over a much broader region than previously suspected.

Nadis, Steve. 2003. "Man against a Mountain." *Scientific American* 28 (3): 48-49. A geologist doubts that Yucca Mountain is safe.

Orndorff, Richard L., Robert W. Wieder, and Harry F. Filkorn. 2000. Geology Underfoot in Central Nevada (Yes, Geology Underfoot). Mountain Press. Great title. Peacock, Andrea. 2003. Libby, *Montana: Asbestos and the Deadly Silence of an American Corporation.* Johnson Books. The author charges that the W.R. Grace, knowingly allowed its workers and their families and neighbors to be poisoned by asbestos contained in vermiculite insulation.

Pellant, Chris, et al. 2002. *Smithsonian Handbooks: Rocks & Minerals*. Dorling Kindersley Publishing. An illustrated guide to more than 500 types of rocks and minerals.

Pendick, Daniel. 1995. "Return to Mount St. Helens," *Earth* 4 (2): 24-33. Life is returning to the slopes of this volcano.

Pendick, Daniel. 1994. "Under the Volcano," *Earth* 3 (3) :34-37. As the global population grows, more and more people are crowding near some of the world's deadliest volcanoes, increasing the risk of disaster.

Pestana, M.H.D. and M.L.L. Formoso. 2003. "Mercury contamination in Lavras do Sul, south Brazil: a legacy from past and recent gold mining." *The Science of the Total Environment*. 307 (1-3): 125-140. Mercury released from mining operations poisons miners and their environment.

Pfeiffer, Tom. 2003. "Mount Etna's Ferocious Future." *Scientific American* 288 (4): 58-65. Europe's biggest and most active volcano is growing more dangerous.

Pinter, Nicholas and Mark T. Brandon. 1997 "How Erosion Builds Mountains," *Scientific American* 276(4):74-81. Although we usually think of volcanic eruptions and tectonic plate collisions as the main mountain-building forces, erosion also plays a role.

Plotkin, S. 1986. "From Surface Mine to Cropland," *Environment* 28 (1):16-20. Mine reclamation: hopeless or full of promise?

Plummer, C. C., et al. 2004. *Physical Geology* 10th ed. WCB/McGraw-Hill Co. A good introduction to basic geology.

Pritchard, Matthew E. and Mark Simons 2002. "A satellite geodetic survey of large-scale deformation of volcanic centres in the central Andes." Nature 418, 167–171 (2002). A satellite survey of 900 volcanoes in the remote central Andes suggests that more volcanoes are active at any one time than was previously suspected.

Rampino, M. R. & Self, S. 1992 "Volcanic winter and accelerated glaciation following the Toba super-eruption." *Nature*, 359, 50 - 52. When Indonesia's Mt. Toba exploded some 74,000 years ago, it released enough dust to kill off vegetation worldwide and may have induced a drastic decline in the population of humans, tigers, and other large mammals.

Rasmussen, Matt. 1997. "The Golden Giveaway," *Inner Voice* May/June 1997:10-13. A criticism of the U.S. Mining Law of 1872 and the low prices charged for mining on public land.

Reichow, M. K. et al. 2002. "40Ar/39Ar dates on basalts from the West Siberian Basin: doubled extent of the Siberian flood basalt province". *Science*, 296, 1846 - 1849. Massive lava flows in Siberia 250 million years ago were at least twice as large as previously thought, and may have caused the biggest extinction the world has ever seen.

Ripley, E. A., et al. 1996. *Environmental Effects of Mining*. St. Lucie Press. An overview of mining impacts.

Russell, Dick. 1998. "Deep Blues," *The Amicus Journal* 19 (4): 25-29. The lowdown on deep-sea mining.

Ryskin, G. 2003. "Methane driven oceanic eruptions and mass extinctions." *Geology* 31: 737-740. A massive methane explosion frothing out of the world's oceans 250 million years ago caused the Earth's worst mass extinction, claims a US geologist.

Schneider, Andrew and David McCumber. 2003. *An Air that Kills*. Putnam. Describes the cancer epidemic associated with asbestos-laden vermiculite ore mined in Libby, MT and turned into vermiculite insulation.

Selleman, J.E. and B.T. Mossman. 1997. "Asbestos Revisited." *Scientific American* 27 (1): 70-75. Once considered a miracle fiber, this mineral is now feared as a health threat.

Sengupta, M. 1993. *Environmental Impacts of Mining: Monitoring, Restoration and Control.* Island Press. Aimed at professionals, this book is a motherload of information.

Sharp, Robert P. and Allen F. Glazner. 1987. *Geology Underfoot in Death Valley and Owens Valley*. Mountain Press Publishing. One in a series of practical guides to geology for specific states.

Shenon, Phillip. December 10, 1995. "A Pacific Nation is Stripped of Everything." *The New York Times* v145 p S1. After 90 years of strip-mining, almost nothing is left of the tiny Pacific island of Nauru.

Shurkin, Joel and Tom Yulsman. 1995. "Assembling Asia," *Earth* 4 (3): 52-59. A theory that the heart of Eurasia was assembled from chains of migrating volcanic islands.

Skinner, B. J. and S. C. Porter. 2003. *The Dynamic Earth: An Introduction to Physical Geology*. John Wiley & Sons. A good introduction to the topic.

Stein, Ross S. 2003. "Earthquake Conversations." *Scientific American* 288 (1): 72-79. Understanding interactions between faults could help forecast future shocks.

Tarbuck, Edward J., et al. (eds) 2002. *Earth: An Introduction to Physical Geology* (With CD-ROM). Prentice Hall. A new textbook/CDROM combination for physical geology.

Van Gelder, L. 1992."Saving the Homeplace," *Audubon* 94 (1): 62-66. A group of Kentucky environmentalists are healing Appalachia's mining scars.

Walker, Gabrielle. 2003. *Snowball Earth.* Crown Publishers. A huge Cambrian ice age may have created conditions that caused life to flourish.

Wilkinson, Todd. 1997. "Monster Mine Still Threatens Yellowstone," *Inner Voice* May/June 1997:21-22. Good information on the proposed New World Mine on the Beartooth Plateau.

Williams, Ted. 2001. "Mountain Madness," *Audubon* 103(3): 36-43. An angry denunciation of mountain top removal in West Virginia.

Winchester, Simon. 2003. *Krakatoa: the Day the World Exploded*. Harper Collins Co. A compelling description of the largest volcanic erruption in recorded history.

Wright, R. & Flynn, L. P. 2004. "Space-based estimate of the volcanic heat flux into the atmosphere during 2001 and 2002" *Geology*, 32: 189-192. The energy from volcanic eruptions is 1000 times less than man-made energy output.

Wuerthner, George. 1992. "Hard rock and heap leach," *Wilderness* 55 (197): 14-18. One of a series on the effects of mining on western landscapes.

Wycoff, Jerome. 2003. *Reading the Earth: Landforms in the Making*. Independent Publishers Group. An introduction to geomorphology.

Wyss, A., et al. 1999. "Fire, Ice, Fossils," *Natural History* 108(5):38-41. A geological history of the Andes.

Vogel, Shawna 1994. "The Big Flush." *Earth* 3 (2): 39-42. Spectacular computer simulations of movements in the earth's mantle suggest that plumes and blobs of hot and cold magma rise and fall like the colored oil globules in a lava lamp.

Xiao, J. et al. 2004. "Environmental concerns related to high thallium levels in soils and thallium uptake by plants in southwest Guizhou, China." *The Science of the Total Environment* 318 (1-3): 223-244. Toxic metals in soils and sediments can make their way into the food chain.

Yeats, Robert S. 2001. *Living with Earthquakes in California: A Survivor's Guide*. Oregon State Univ. Press. A history of California's earthquakes, how they were caused, and how to avoid danger. Zwinger, Ann. 1995. *Downcanyon: A Naturalist Explores the Colorado River Through Grand Canyon*. Univ. of Arizona Press. Elegant essays on the geology and natural history of the Colorado River and its tributaries.