

SB&F

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SB&F (Science Books & Films) Your Guide to Science Resources for All Ages is written for librarians, media specialists, curriculum supervisors, science teachers, and others responsible for recommending or purchasing science materials. SB&F provides critical reviews of the scientific accuracy and presentation of print, audiovisual, and electronic resources intended for use in science, technology, and mathematics education. Careful evaluation of these resources is vital to a better understanding of science by the next generation.

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EXPLANATION OF REVIEW PROCEDURES

SB&F reviewers are scientists in academia and industry, teachers, librarians, and media specialists. Reviewers are asked to "write a critical evaluation... describing (1) the merits and/or d merits of the book or film and any accompanying supplements, (2) the content, technical quality, and instructional value, (3) the audience(s) the material is most appropriate for and why, and (4) how the material could be used for collateral reading or viewing, reference, or classroom use."

SB&F reviewers summarize their overall opinion of materials in terms of quality and level of difficulty by choosing ratings symbols from the list below. When rating materials, reviewers take into account accuracy of scientific information, scope, quality of illustrations or cinematography, and value when compared to other titles. Second opinions are obtained for materials rated "NR."

SB&F reviews are normally signed by reviewers, but if a reviewer so requests or if substantial changes are made, reviews are signed "Staff."

SB&F evaluations are the personal appraisals of the reviewers or of the staff and do not represent official recommendations or decisions of the reviewers' affiliations or of the AAAS.

EXPLANATION OF SYMBOLS

Appraisal

★★ Highly recommended. The material contains no serious errors or deficiencies, and the reviewer thought the content and presentation were excellent.

★ Recommended. The material contains no serious errors or deficiencies, and the reviewer thought the content and presentation were above average.

Ac Acceptable. The material contains no serious errors or deficiencies, and the reviewer thought the content and presentation were average.

Q Questionable. The material contains errors of fact, deficiencies in development, and/or the reviewer thought the content and presentation were below average.

NR Not recommended. The material contains serious errors of fact and/or deficiencies in development.

Level of Difficulty

K Preschool or kindergarten

EP Elementary, grades 1 & 2

EI Elementary, grades 3 & 4

EA Elementary, grades 5 & 6

JH Junior high, grades 7 & 8

YA Young adult, grades 9–12

C College

T Teaching professional

GA General audience

Two consecutive levels are separated by a comma; for example, **K, EP**. Three or more consecutive levels are condensed to show the youngest and oldest age groups, and the symbols for these are separated by a dash; for example, **K-EI**. **GA** and **T** are always noted separately.

LETTERS

SB&F is written for librarians and science teachers in schools, colleges, and public libraries. Letters may be edited and will be published as space permits. Letters submitted for publication should be addressed to "Letters," Science Books & Films, 1200 New York Avenue, NW, Washington, DC 20005.

The 2008 AAAS/Subaru SB&F Prize Finalists

CHILDREN'S SCIENCE PICTURE BOOKS:

Babies in the Bayou written and illustrated by Jim Arnosky (Penguin Group)
Gregor Mendel: The Friar Who Grew Peas by Cheryl Bardo, with illustrations by Jos A. Smith (Harry N. Abrams)

Turtle Summer: A Journal for My Daughter by Mary Alice Monroe, with photographs by Barbara J. Bergwerf (Sylvan Dell)

Vulture View by April Pulley Sayre, with illustrations by Steve Jenkins (Henry Holt)

Where in the Wild? Camouflaged Creatures Concealed and Revealed by David Schwartz and Yael Schy, with photographs by Dwight Kuhn (Tricycle Press)

MIDDLE GRADES SCIENCE BOOKS:

Being Caribou: Five Months on Foot with a Caribou Herd by Karsten Heuer (Walker & Co.)

Circulating Life: Blood Transfusion from Ancient Superstitions to Modern Medicine by Cherie Winner (Twenty-First Century Books)

Dinosaur Eggs Discovered: Unscrambling the Clues! by Lowell Dingus, Luis M. Chaippe, and Rodolfo Coria (Twenty-First Century Books)

Frog Heaven: Ecology of a Vernal Pool by Doug Wechsler (Boyd's Mills Press)

Tracking Trash: Flotsam, Jetsam, and the Science of Ocean Motion by Loree Griffin Burns (Houghton Mifflin)

YOUNG ADULT SCIENCE BOOKS:

The Canon: A Whirligig Tour of the Beautiful Basics of Science by Natalie Angier (Houghton Mifflin, 2007)

An Ocean of Air: Why the Wind Blows and Other Mysteries of the Atmosphere by Gabrielle Walker (Harcourt, 2007)

Is Pluto a Planet? A Historical Journey Through the Solar System by David A. Weintraub (Princeton, 2006)

The Wild Trees: A Story of Passion and Daring by Richard Preston (Random House, 2007)

HANDS-ON SCIENCE/ACTIVITY BOOKS:

Exploratoria by Pat Murphy, Ellen Macaulay, and the staff of the Exploratorium (Little Brown & Company)

Stellar Science Projects about Earth's Sky by Robert Gardner (Enslow)

Temperature by Navin Sullivan (from the Measure Up! Series) (Marshall Cavendish)

AAAS/Subaru Essay Writing Competition for K-12 Educators

In February 2007, ten science teachers were awarded the AAAS/Subaru Essay Writing Competition Award for their essays on designing science lesson plans and integrating technology in the classroom.

The awards, presented at the AAAS Annual Meeting, recognized five teachers with first-place prizes and five others with honorable mentions. The teachers, from across the United States and Canada, were cited for their wealth of knowledge about bringing innovative science into the classroom.

FIRST PLACE:

Jody Calabro, Brookline, MA, *Boston Harbor Islands*

Mary Ellen Lennon, Brooklyn, NY, *Young Scientists and Nuclear Politics*

Diane Perito, Malden, MA, *Saving Fellsmere Pond*

Nitzan Resnick, Stoughton, MA, *Forest Ecology: From Baseball to Acid Rain*

Eric Walters, Staten Island, NY, *Meteorology*

HONORABLE MENTION:

Gabriel Ayyavoo, Toronto, Canada, *Ethologist for a Day: Investigative Behavioral Study in the Zoo*

Mary Cowhey, Northampton, MA, *A Not-So-Silent Spring*

Lollie Garay, Spring, TX, *Out of the Box Technology*

Mary Johansson, East Falmouth, MA, *When Students Choose*

What They Want to Learn...

Helen Kittredge, South Deerfield, MA, *CSI Comes to SES*

Best Books 2007

Junior High and Young Adult Books

330 ENERGY, ENVIRONMENT, NATURAL RESOURCES

Sky Time in Gray's River: Living for Keeps in a Forgotten Place. Pyle, Robert Michael. (Illus.) Boston: Houghton Mifflin, 2006. 256pp. \$20.00. ISBN 0-395-82821-X. [YA, C, T, GA Vol. 43 No. 2 p. 65]

The World Without Us. Weisman, Alan. (Illus.) NY: St. Martin's, 2007. 304pp. \$24.95. ISBN 0-312-34729-4. [YA, C, T, GA Vol. 43 No. 5 p. 210]

360 SOCIAL ISSUES

Crime Scene Science Fair Projects. Harris, Elizabeth Snoke. (Illus.) NY: Sterling, 2006. 112pp. \$25.95. 2006016803. ISBN 1-57990-765-2. Glossary; Index; C.I.P. [JH Vol. 43 No. 2 p. 66]

Forensic Science. Fridell, Ron. (Illus.; from the Cool Science Series.) Minneapolis: Lerner, 2006. 48pp. \$25.26. 2005033039. ISBN 0-8225-5935-8. Glossary; Index; C.I.P. [EA, JH Vol. 43 No. 1 p. 18]

An Inconvenient Truth: The Crisis of Global Warming. Gore, Al. (Illus.) NY: Viking, 2007. 192pp. \$23.00. 2006103242. ISBN 978-0-670-06271-3. Index; C.I.P. [EA-YA, GA Vol. 43 No. 5 p. 211]

500 PURE SCIENCE

10 Questions Science Can't Answer (Yet). Hanlon, Michael. (Illus.) NY: Macmillan, 2007. vii+192pp. \$24.95. ISBN 978-0-230-51758-5. Index. [JH, YA, C, T, GA Vol. 43 No. 6 p. 256]

100 Greatest Science Discoveries of All Time. Haven, Kendall. (Illus.) Englewood, CO: Libraries Unlimited, 2007. xiv+255pp. \$35.00. 2006032417. ISBN 978-1-59158-265-6. Index; C.I.P. [EA-C, GA Vol. 43 No. 5 p. 212]

The Cambridge History of Science: Volume 3, Early Modern Science. Park, Katharine, and Lorraine Daston (Eds.). (Illus.) NY: Cambridge, 2006. xxvii + 865pp. \$160.00. ISBN 0-521-57244-4. [YA, C, T, GA Vol. 43 No. 4 p. 155]

Descartes: A Biography. Clarke, Desmond M. (Illus.) NY: Cambridge, 2006. xi+507pp. \$40.00. 2005008107. ISBN 0-521-82301-3. Index; C.I.P. [YA, C, T, GA Vol. 43 No. 3 p. 107]

Discovery Channel Young Scientist Challenge: Taking Science to the Extreme! Hansen, Rosanna, and Sherry Gerstein, with a foreword by Steven Jacobs. (Illus.) NY: Wiley, 2006. 96pp. \$14.95. 2006012334. ISBN 0-7879-8493-0. Glossary; Index; C.I.P. [JH, T Vol. 43 No. 3 p. 114]

The Illustrated Timeline of Science: A Crash Course in Words and Pictures. Strickland, Sidney, with Eliza Strickland. (Illus.) NY: Sterling, 2007. 128pp. \$12.95. ISBN 1-4027-3604-5. [EA-YA, T, GA Vol. 43 No. 3 p. 115]

Jane Goodall: The Woman Who Redefined Man. Peterson, Dale. (Illus.) Boston: Houghton Mifflin, 2006. 752pp. \$35.00. ISBN 0-395-85405-9. [JH-C, T, GA Vol. 43 No. 3 p. 114]

Last-Minute Science Fair Projects: When Your Bunsen's Not Burning but the Clocks Really Ticking. Bardhan-Quallen, Sudipta. (Illus.) NY: Sterling, 2007. 112pp. \$19.95. 2005034455. ISBN 1-4027-1690-7. Index; C.I.P. [JH Vol. 43 No. 3 p. 113]

The Lost World of James Smithson: Science, Revolution, and the Birth of the Smithsonian. Ewing, Heather. (Illus.) NY: Bloomsbury, 2007. 434pp. \$29.95. ISBN 978-1-59691-029-4. Index. [YA, C, T, GA Vol. 43 No. 5 p. 211]

BEST BOOKS 2007

Middle World: The Restless Heart of Matter and Life. Haw, Mark. (Illus.) NY: Macmillan Publishing USA, 2006. 256pp. \$24.95. ISBN 1-4039-8603-7. Index. [JH-C, T, GA Vol. 43 No. 4 p. 161]

Robert Hooke: Creative Genius, Scientist, Inventor. Gow, Mary. (Illus.; from the Great Minds of Science Series.) Berkeley Heights, NJ: Enslow, 2006. 128pp. \$23.95. 2005031651. ISBN 0-7660-2547-0. Glossary; Index; C.I.P. [EA, JH Vol. 43 No. 3 p. 114]

Science Giants: Life Science: 25 Activities Exploring the World's Greatest Scientific Discoveries. Ticotsky, Alan. (Illus.) Glenview, IL: Good Year Books, 2006. 140pp. \$16.95. ISBN 1-59647-106-9. Glossary. [EA, JH Vol. 43 No. 3 p. 115]

Science Project Helper. Dickerson, Mike. (Illus. by Carolyn Gill.) San Antonio, TX: Wings Press, 2006. 102pp. \$16.95. ISBN 0-930324-77-3. Index. [EA-YA, T Vol. 43 No. 2 p. 68]

The Secret of Scent: Adventures in Perfume and the Science of Smell. Turin, Luca. (Illus.) NY: HarperCollins, 2006. 207pp. \$23.95. ISBN 0-06-113383-3. Index. [YA, C, T, GA Vol. 43 No. 2 p. 69]

The Telescope: Its History, Technology, and Future. Andersen, Geoff. (Illus.) Princeton, NJ: Princeton, 2007. 248pp. \$29.95. 2006940308. ISBN 978-0-691-12979-2. Index; C.I.P. [YA, C, GA Vol. 43 No. 6 p. 255]

Theories for Everything: An Illustrated History of Science from the Invention of Numbers to String Theory. Langone, John, Bruce Stutz, and Andrea Gianopoulos. (Illus.) Washington, DC: National Geographic Society, 2006. 408pp. \$40.00. 2006021419. ISBN 0-7922-3912-1. Index; C.I.P. [YA, C, T, GA Vol. 43 No. 2 p. 68]

With a Little Luck: Surprising Stories of Amazing Discoveries. Fradin, Dennis Brindell. (Illus.) NY: Dutton, 2006. 183pp. \$17.99. 2005004798. ISBN 0-525-47196-0. C.I.P. [EA-YA, T Vol. 43 No. 2 p. 68]

510 MATHEMATICS

The Age of Genius: 1300–1800. Bradley, Michael J. (Illus.; from the Pioneers in Mathematics Series.) Broomall, PA: Chelsea House, 2006. xiii+162pp. \$29.95. 2005032354. ISBN 0-8160-5424-X. Glossary; Index; C.I.P. [YA, C, T Vol. 43 No. 3 p. 115]

Aha! Gotcha and Aha! Insight: A Two-Volume Collection. Gardner, Martin. (Illus.) Washington, DC: Mathematical Association of America, 2007. 350pp.

ISBN 978-0-88385-551-8. [JH-C, T, GA Vol. 43 No. 4 p. 162]

The Birth of Mathematics: Ancient Times to 1300. Bradley, Michael J. (Illus.; from the Pioneers in Mathematics Series.) Broomall, PA: Chelsea House, 2006. xii+148pp. \$29.95. 2005030563. ISBN 0-8160-5423-1. Glossary; Index; C.I.P.

The Foundations of Mathematics. 2005033736. ISBN 0-8160-5425-8.

Mathematics Frontiers: 1950 to the Present. 2005036154. ISBN 0-8160-5427-4.

Modern Mathematics: 1900 to 1950. 2005036152. ISBN 0-8160-5426-6.

[YA, C, T Vol. 43 No. 3 p. 115]

The Edge of the Universe: Celebrating Ten Years of Math Horizons. Haunsperger, Deanna, and Stephen Kennedy (Eds.). (Illus.) Washington, DC: Mathematical Association of America, 2006. 302pp. ISBN 0-88385-555-0. [YA, C, T, GA Vol. 43 No. 3 p. 117]

The Genius of Euler: Reflections on His Life and Work. Dunham, William (Ed.). (Illus.; from the MAA Tercentenary Euler Celebration Series.) Washington, DC: Mathematical Association of America, 2007. 310pp. \$48.00. ISBN 0-88385-558-5. Index. [YA, C, T, GA Vol. 43 No. 4 p. 161]

Geometry. Low, Yvonne. (Illus.) Beaverton, OR: Kyoodoz, 2006. 200pp. \$16.50. ISBN 978-0-9771172-1-5. Index. [JH, YA, T, GA Vol. 43 No. 1 p. 20]

The Magic Numbers of the Professor. O'Shea, Owen, and Underwood Dudley. (Illus.) Washington, DC: Mathematical Association of America, 2007. 168pp. \$39.95. ISBN 0-88385-557-7. Index. [YA, C, T, GA Vol. 43 No. 4 p. 162]

The Mathematics of Games and Gambling. Packel, Edward. (Illus.) Washington, DC: Mathematical Association of America, 2007. 176pp. ISBN 978-0-88385-646-8. [YA, C, T, GA Vol. 43 No. 5 p. 213]

Probabilities: The Little Numbers That Rule Our Lives. Olofsson, Peter. (Illus.) NY: Wiley, 2006. ix+268pp. \$59.95. ISBN 0470040017. Index. [YA, C, T, GA Vol. 43 No. 2 p. 69]

The Pythagorean Theorem: A 4,000 Year History. Maor, Eli. (Illus.) Princeton, NJ: Princeton, 2007. 280pp. \$24.95. ISBN 978-0-691-12526-0. [YA-T, GA Vol. 43 No. 5 p. 212]

520 ASTRONOMY

300 Astronomical Objects: A Visual Reference to the Universe. Wilkins, Jamie, and Robert Dunn. (Illus.) NY: Firefly Books, 2007. 528pp. \$29.95. C2006-900447-1. ISBN 1-55407-175-5. Glossary; Index; C.I.P. [YA, C, T, GA Vol. 43 No. 4 p. 163]

Edwin Hubble: Discoverer of Galaxies, Revised Edition. Datnow, Claire L. (Illus.; from the Great Minds of Science Series.) Berkeley Heights, NJ: Enslow, 2007. 128pp. \$23.95. 2006020111. ISBN 978-0-7660-2791-6. Glossary; Index; C.I.P. [JH Vol. 43 No. 4 p. 163]

The Illustrated Timeline of the Universe: A Crash Course in Words and Pictures. Sanderson, Richard H., and Philip S. Harrington. (Illus.) NY: Sterling, 2007. 128pp. \$12.95. ISBN 1-4027-3605-3. [EA-YA, T, GA Vol. 43 No. 3 p. 118]

Into That Silent Sea: Trailblazers of the Space Era, 1961-1965. French, Francis, and Colin Burgess, with a foreword by Paul Haney. (Illus.) Lincoln, NE: University of Nebraska, 2007. xxvii+399pp. \$29.95. 2006026745. ISBN 978-0-8032-1146-9. C.I.P. [YA, GA Vol. 43 No. 6 p. 257]

Is Pluto a Planet? A Historical Journey Through the Solar System. Weintraub, David A. (Illus.) Princeton, NJ: Princeton, 2006. xi+254pp. \$27.95. 2006929630. ISBN 0-691-12348-9. Index; C.I.P. [YA, C, T, GA Vol. 43 No. 3 p. 118]

Saturn: A New View. Lovett, L., J. Horwath, and J. Cuzzi, with a foreword by Kim Stanley Robinson. (Illus.) NY: Abrams, 2006. 192pp. \$40.00. 2006003540. ISBN 0-8109-3090-0. Index; C.I.P. [YA, C, T, GA Vol. 43 No. 1 p. 20]

The Sun Kings: The Unexpected Tragedy of Richard Carrington and the Tale of How Modern Astronomy Began. Clark, Stuart. (Illus.) Princeton, NJ: Princeton, 2007. xii+212pp. \$24.95. 2006940123. ISBN 978-0-691-12660-9. Index; C.I.P. [YA, C, T, GA Vol. 43 No. 6 p. 257]

530 PHYSICAL SCIENCES

Einstein: His Life and Universe. Isaacson, Walter. (Illus.) NY: Simon & Schuster, 2007. xxii+675pp. \$32.00. 2006051264. ISBN 978-0-7432-6473-0. Index; C.I.P. [YA, C, GA Vol. 43 No. 6 p. 258]

Electricity and Magnetism: A Historical Perspective. Baigrie, Brian. (Illus.; from the Greenwood Guides to Great Ideas in Science Series.) Westport, CT:

Greenwood Press, 2006. 166pp. 2006029542. ISBN 0-313-3358-0. Index; C.I.P. [YA, C, T, GA Vol. 43 No. 3 p. 118]

Foolish Physics. Townsend, John. (Illus.; from the Weird History of Science Series.) Chicago: Raintree, 2007. 56pp. \$23.00. 2006007739. ISBN 1-4109-2377-0. Glossary; Index; C.I.P. [JH Vol. 43 No. 5 p. 214]

Isaac Newton. Krull, Kathleen. (Illus. by Boris Kulikov; from the Giants of Science Series.) NY: Viking, 2006. 128pp. \$15.99. ISBN 0-670-05921-8. Index. [EA-C, T, GA Vol. 43 No. 2 p. 70]

The Martians of Science: Five Physicists Who Changed the Twentieth Century. Hargittai, István. (Illus.) NY: Oxford, 2006. xxiv+313pp. \$2005029427. ISBN 0-19-517845-9. Index; C.I.P. [YA,C,T,GA Vol. 43 No. 3 p. 119]

The Poincaré Conjecture: In Search of the Shape of the Universe. O'Shea, Donald. NY: Walker & Company, 2007. 304pp. \$25.95. ISBN 0-8027-1532-X. [YA, C, T Vol. 43 No. 3 p. 119]

540 CHEMISTRY

Acids and Bases. Oxlade, Chris. (Illus.; from the Chemicals in Action Series.) Westport, CT: Heinemann, 2007. 48pp. \$22.00. ISBN 978-1-4329-0050-2. Glossary; Index; C.I.P.

Atoms. ISBN 978-1-4329-0051-9.

Elements and Compounds. ISBN 978-1-4329-0052-6.

Materials Changes and Reactions. ISBN 978-1-4329-0053-3.

Metals. ISBN 978-1-4329-0054-0.

States of Matter. ISBN 978-1-4329-0055-7.

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Arsenic. Cooper, Chris. (Illus.; from the Elements Series.) Tarrytown, NY: Marshall Cavendish, 2006. 32pp. \$19.95. ISBN 0-7614-2203-X. Glossary; Index; C.I.P.

Cobalt. Watt, Susan. ISBN 0-7614-2200-5.

Lithium. Jackson, Tom. ISBN 0-7614-2199-8.

Molybdenum. Lepora, Nathan. ISBN 0-7614-2201-3.

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BEST BOOKS 2007

Chemistry Matters! Volume 1: Atoms and Molecules. Jackson, Tom. (Illus.; from the Chemistry Matters! Series.) NY: Scholastic, 2007. 80pp (each). ISBN 978-0-7172-6194-9. Glossary; Index; C.I.P.

Chemistry Matters! Volume 2: States of Matter.

Chemistry Matters! Volume 3: Chemical Reactions.

Chemistry Matters! Volume 4: Energy and Reactions.

Chemistry Matters! Volume 5: The Periodic Table.

Chemistry Matters! Volume 6: Metals and Metalloids.

Chemistry Matters! Volume 7: Nonmetals.

Chemistry Matters! Volume 8: Organic Chemistry.

Chemistry Matters! Volume 9: Biochemistry.

Chemistry Matters! Volume 10: Chemistry in Action.

[JH, YA Vol. 43 No. 5 p. 215]

Marie Curie: Discoverer of Radium, Revised Edition. Poynter, Margaret. (Illus.; from the Great Minds of Science Series.) Berkeley Heights, NJ: Enslow, 2007. 112pp. \$23.95. 2006020080. ISBN 978-0-7660-2795-4. Glossary; Index; C.I.P. [EA, JH Vol. 43 No. 5 p. 215]

550 EARTH SCIENCES

Extreme Waves. Smith, Craig B. (Illus.) Washington, DC: Joseph Henry Press, 2006. xx+291pp. \$27.95. 2006019554. ISBN 0-309-10062-3. Index; C.I.P. [YA, C, T, GA Vol. 43 No. 4 p. 165]

Geology Underfoot in Northern Arizona. Abbott, Lon, and Terri Cook. (Illus.) Missoula, MT: Mountain Press, 2007. xii+321pp. \$18.00. 2007004869. ISBN 978-0-87842-528-0. Index; C.I.P. [YA, C, T, GA Vol. 43 No. 6 p. 259]

Over the Mountains: An Aerial View of Geology. Collier, Michael, with a foreword by John S. Shelton. (Photographs by the author.) NY: Firefly Books, 2007. 128pp. \$29.95. 2006047151. ISBN 978-1-931414-18-0. Glossary; Index; C.I.P. [YA, C, T, GA Vol. 43 No. 6 p. 260]

Richter's Scale: Measure of an Earthquake, Measure of a Man. Hough, Susan Elizabeth. (Illus.) Princeton, NJ: Princeton, 2007. xii+335pp. \$27.95. 2006016480. ISBN 0-691-12807-3. Index; C.I.P. [YA, C, GA Vol. 43 No. 4 p. 165]

Roadside Geology of Ohio. Camp, Mark J. (Illus.) Missoula, MT: Mountain Press, 2007. x+410pp. \$24.00. 2006020781. ISBN 0-87842-524-1. Glossary; Index; C.I.P. [JH-C, GA Vol. 43 No. 5 p. 216]

Rocks and Fossils. Hynes, Margaret, with a foreword by Professor Jack Horner. (Illus.; from the Kingfisher Knowledge Series.) Boston: Kingfisher, 2006. 64pp. \$12.95. ISBN 0-7534-5974-4. Glossary; Index. [EA, JH Vol. 43 No. 2 p. 71]

Stellar Science Projects about Earth's Sky. Gardner, Robert. (Illus.; from the Rockin' Earth Science Experiments Series.) Berkeley Heights, NJ: Enslow, 2007. 48pp. \$17.95. 2006013790. ISBN 978-0-7660-2732-9. Glossary; Index; C.I.P. [JH-C, T, GA Vol. 43 No. 3 p. 122]

570 LIFE SCIENCES

Darwin's Gift to Science and Religion. Ayala, Francisco J. (Illus.) Washington, DC: Joseph Henry Press, 2007. 256pp. \$24.95. ISBN 978-0-309-10231-6. [YA, C, T, GA Vol. 43 No. 4 p. 167]

From Lucy to Language: Revised, Updated, and Expanded. Johanson, Donald, and Blake Edgar. (Photographs by David L. Brill.) NY: Simon & Schuster, 2006. 288pp. \$65.00. 0-7432-8064-4. Index; C.I.P. [YA, C, T, GA Vol. 43 No. 1 p. 21]

The Good, the Bad, the Slimy: The Secret Life of Microbes. Latta, Sara L. (Illus.) Berkeley Heights, NJ: Enslow, 2007. 128pp. \$23.95. 2005035405. ISBN 978-0-7660-1294-3. Glossary; Index; C.I.P. [EA, JH Vol. 43 No. 4 p. 168]

How Monkeys Make Chocolate: Unlocking the Mysteries of the Rainforest. Forsyth, Adrian. (Illus.) Toronto: Maple Tree Press, 2006. 48pp. \$19.95. C2006-900319-X. ISBN 978-1-897066-77-5. Index; C.I.P. [JH, YA Vol. 43 No. 4 p. 168]

How Species Change. Bradley, James V. (Illus.; from the Nature Walk Series.) Broomall, PA: Chelsea House, 2006. 80pp. \$28.00. 2006011762. ISBN 0-7910-9118-X. Glossary; Index; C.I.P. [EA, JH Vol. 43 No. 2 p. 73]

Life. Wigzell, Hans, and Mark Holborn. (Photographs by Lennart Nilsson.) NY: Abrams, 2006. 302pp. \$45.00. ISBN 0-8109-5842-2. [YA, T, GA Vol. 43 No. 2 p. 74]

The Making of the Fittest: DNA and the Ultimate Forensic Record of Evolution. Carroll, Sean B. (Illus.) NY: Norton, 2006. 302pp. \$22.95. 2006017197. ISBN 0-393-06163-9. Index; C.I.P. [YA, C, T, GA Vol. 43 No. 3 p. 123]

Marshes: The Disappearing Edens. Burt, William. (Photographs by the author.) New Haven, CT: Yale, 2007. 180pp. \$35.00. 2006026961. ISBN 978-0-300-1229-9. Index; C.I.P. [EA-C, T, GA Vol. 43 No. 6 p. 261]

Modern Marine Science: Exploring the Deep. Yount, Lisa. (Illus.; from the Milestones in Discovery and Invention Series.) Broomall, PA: Chelsea House, 2006. 202pp. \$35.00. 2005030562. ISBN 0-8160-5747-8. Glossary; Index; C.I.P. [JH-C, T, GA Vol. 43 No. 3 p. 123]

Ocean: The World's Last Wilderness Revealed. American Museum of Natural History, with an introduction by Fabien Cousteau. (Illus.) NY: DK Publishing, 2006. 512pp. \$50.00. ISBN 0-7566-2205-0. Glossary; Index; C.I.P. [YA, C, T, GA Vol. 43 No. 2 p. 73]

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560 PALEONTOLOGY

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BEST BOOKS 2007

Dirty Rotten Bugs? Arthropods Unite to Tell Their Side of the Story. Bonotaux, Gilles. (Illus. by the author.) Minnetonka, MN: Two-Can Publishing, 2007. 45pp. \$14.95. 2006038. ISBN 978-1-58728-593-6. Glossary; Index; C.I.P. [EP-YA, T, GA Vol. 43 No. 4 p. 181]

Eagles and Other Birds. Solway, Andrew. (Illus.; from the Adapted for Success Series.) Westport, CT: Heinemann, 2007. 48pp. \$22.00. 2006014291. ISBN 978-1-4034-8222-8. Glossary; Index; C.I.P. [EI-YA Vol. 43 No. 6 p. 276]

Freaky Facts about Spiders. Morley, Christine. (Illus.) Minnetonka, MN: Two-Can Publishing, 2007. 32pp. \$13.95. ISBN 978-1-58728-596-7. Glossary; Index. [EP, EI Vol. 43 No. 4 p. 183]

Fun Facts about Alligators. Bredeson, Carmen. (Illus.; from the I Like Reptiles and Amphibians! Series.) Berkeley Heights, NJ: Enslow, 2007. 24pp. \$15.95. 2006024347. ISBN 978-0-7660-2786-2. Glossary; Index; C.I.P.

Fun Facts about Lizards. 2006015917. ISBN 978-0-7660-2789-3.

Fun Facts about Salamanders. 2006015916. ISBN 978-0-7660-2790-9.

Fun Facts about Turtles. 2006035904. ISBN 978-0-7660-2785-5.

[K-EI Vol. 43 No. 6 p. 273]

Giant Snakes. Simon, Seymour. (Illus.; from the See More Readers Series.) San Francisco: Chronicle Books, 2006. 32pp. 2005025360. ISBN 0-8118-5410-8. C.I.P. [EP, EI Vol. 43 No. 1 p. 39]

A Giraffe Grows Up. Tourville, Amanda Doering. (Illus. by Michael Denman and William J. Huiett; from the Wild Animals Series.) Saxonville, MA: Picture Book Studio, 2007. 24pp. \$18.95. 2006027307. ISBN 978-1-4048-3158-2. Glossary; Index; C.I.P. [K, EP Vol. 43 No. 5 p. 228]

Hello, Bumblebee Bat. Lunde, Darrin. (Illus. by Patricia J. Wynne.) Watertown, MA: Charlesbridge, 2007. 32pp. \$15.95. ISBN 978-1-57091-374-7. 2006020952. C.I.P. [K, EP Vol. 43 No. 6 p. 274]

Hey There, Sting Bug! Bulion, Leslie. (Illus. by Leslie Evans.) Watertown, MA: Charlesbridge, 2006. 45pp. \$12.95. 2005019627. ISBN 1-58089-304-X. Glossary; C.I.P. [K-JH Vol. 43 No. 1 p. 36]

Honey: A Gift From Nature. Fuijwara, Yumiko. (Illus. by Hideko Ise.) La Jolla, CA: Kane/Miller, 2006. 32pp. \$7.95. 2005930528. ISBN 1-929132-94-8. C.I.P. [K, EP Vol. 43 No. 1 p. 37]

Insect. Mound, Laurence. (Illus.; from the DK Eyewitness Series.) NY: DK Publishing, 2007. 72pp. \$15.99. ISBN 978-0-7566-3004-1. Glossary; Index. [EI-C, T, GA Vol. 43 No. 6 p. 275]

Inside Access: Sharks. Savage, Stephen. (Illus.) Boston: Kingfisher, 2007. 32pp. \$9.95. 2006024923. ISBN 978-0-7534-6064-1. Glossary; Index; C.I.P. [EP, EI Vol. 43 No. 5 p. 228]

A Jaguar Grows Up. Tourvilles, Amanda Doering. (Illus. by Michael Denman and William J. Huiett; from the Wild Animals Series.) Minneapolis: Picture Window Books, 2007. 24pp. \$18.95. 2006027305. ISBN 978-1-4048-3159-9. Glossary; Index; C.I.P. [K, EP Vol. 43 No. 5 p. 228]

Life-Size Reptiles. Wilson, Hannah. (Illus.) NY: Sterling, 2007. 28pp. \$9.95. ISBN 1-4027-4542-7. Index. [EI Vol. 43 No. 4 p. 184]

Little Lost Bat. Markle, Sandra. (Illus. by Alan Marks.) Watertown, MA: Charlesbridge, 2006. 32pp. \$23.95. 2005019619. ISBN 1-57091-656-X. C.I.P. [K-EA Vol. 43 No. 1 p. 37]

Lowdown on Earthworms. Dixon, Norma. (Illus.) Markham, ON: Fitzhenry & Whiteside, 2006. 32pp. \$16.95. C2004-901063-8. ISBN 1-55005-114-8. Glossary; Index; C.I.P. [EI, EA Vol. 43 No. 1 p. 36]

Meet the Meerkat. Lunde, Darrin. (Illus. by Patricia J. Wynne.) Watertown, MA: Charlesbridge, 2007. 32pp. \$15.95. ISBN 978-1-58089-110-3. 2006021252. C.I.P. [K, EP Vol. 43 No. 6 p. 275]

Ocean Life. Phillips, Dee, and Alison Howard. (Illus.; from the Blue Zoo Guides.) Minnetonka, MN: Two-Can Publishing, 2006. 96pp. \$18.95. ISBN 1-58728-560-0. Glossary; Index; C.I.P. [EI, EA, T, GA Vol. 43 No. 1 p. 38]

Penguins, Penguins, Everywhere! Barner, Bob. (Illus.) San Francisco: Chronicle Books, 2007. 32pp. \$14.95. 2006020960. ISBN 978-0-8118-5664-5. C.I.P. [K, EP Vol. 43 No. 4 p. 181]

Saving the Whooping Crane. Goodman, Susan E. (Illus. by Phyllis V. Saroff; from the Science On My Own Series.) Brookfield, CT: Millbrook Press, 2007. 48pp. \$25.26. 2006039577. ISBN 978-0-8225-6748-6. Glossary; Index; C.I.P. [EI Vol. 43 No. 6 p. 274]

Small Wonders: Baby Animals in the Wild. Baille, Marilyn. (Illus. by Romi Caron.) Toronto: Maple Tree Press, 2006. 32pp. \$17.95. C2006-900316-5. ISBN 978-1-897066-72-0. C.I.P. [EP Vol. 43 No. 4 p. 180]

Turtle Summer: A Journal for My Daughter. Monroe, Mary Alice. (Photographs by Barbara J. Bergwerf.) Mt. Pleasant, SC: Sylvan Dell Publishing, 2007. 32pp. \$15.95. 2006938664. ISBN 978-0-9777423-5-6. C.I.P. [EI, EA, GA Vol. 43 No. 6 p. 275]

600 TECHNOLOGY

How Nearly Everything Was Invented. MacLeod, Jilly. (Illus. by Lisa Swerling and Ralph Lazar.) NY: DK Publishing, 2006. 64pp. \$19.99. ISBN 978-0-7566-2077-6. Glossary; Index; C.I.P. [EI, EA, T Vol. 43 No. 1 p. 39]

Marvelous Mattie: How Margaret E. Knight Became an Inventor. McCully, Emily Arnold. (Illus.) NY: Farrar, Straus and Giroux, 2006. 32pp. \$16.00. 2004056415. ISBN 0-374-34810-3. C.I.P. [EI, EA Vol. 43 No. 1 p. 40]

610 MEDICAL SCIENCES, PSYCHIATRY

Circulatory System. Jakab, Cheryl. (Illus.; from the Our Body Series.) North Mankato, MN: Smart Apple Media, 2007. 32pp. \$18.95. 2005056803. ISBN 978-1-58340-733-2. Glossary; Index; C.I.P.

Digestive System. 2005057881. ISBN 978-1-58340-737-0.

Muscular System. 2005056804. ISBN 978-1-58340-734-9.

Nervous System. 2005057886. ISBN 978-1-58340-735-6.

Respiratory System. 2005056798. ISBN 978-1-58340-736-3.

Skeletal System. 2005057882. ISBN 978-1-58340-738-7. [EI Vol. 43 No. 5 p. 229]

Gee Whiz! It's All about Pee. Goodman, Susan E. (Illus. by Elwood H. Smith.) NY: Viking, 2006. 40pp. \$15.99. ISBN 0-670-06064-X. C.I.P. [K-EP, GA Vol. 43 No. 2 p. 86]

My Bones. Lindeen, Carol K., with Gail Saunders-Smith, consulting editor. (Illus.; from the My Body Series.) Minneapolis: Capstone, 2007. 24pp. \$11.95. 2006013828. ISBN 978-0-7368-6696-5. Glossary; Index; C.I.P.

My Brain. 2006027842. ISBN 978-0-7368-6693-4.

My Heart. 2006013650. ISBN 978-0-7368-6691-0.

My Lungs. 2006013829. ISBN 978-0-7368-6692-7.

My Muscles. 2006027843. ISBN 978-0-7368-6695-8.

My Stomach. 2006027859. ISBN 978-0-7368-6694-1.

[K, EP Vol. 43 No. 4 p. 184]

Ouch! How Your Body Makes It Through a Very Bad Day. Walker, Richard. (Illus.) NY: DK Publishing, 2007. 72pp. \$16.99. ISBN 978-0-7566-2536-8. Glossary; Index; C.I.P. [EI-JH, GA Vol. 43 No. 4 p. 185]

The Quest to Digest. Corcoran, Mary K. (Illus. by Jef Czekas.) Watertown, MA: Charlesbridge, 2006. 32pp. \$6.95. 2005019622. ISBN 1-57091-665-9. Glossary; C.I.P. [EI Vol. 43 No. 1 p. 40]

620 ENGINEERING

Apollo Project: Exploring the Moon. Godwin, Robert. (Illus.; from the Pocket Space Guides Series.) Burlington, Ontario: Apogee Books, 2006. 80pp. \$9.95. ISBN 1-894959-37-X. [K-C, T, GA Vol. 43 No. 2 p. 86]

Build It! Structures, Systems, and You. Mason, Adrienne. (Illus. by Claudia Davila; from the Primary Physical Science Series.) Tonawanda, NY: Kids Can Press, 2006. 32pp. \$12.95. C2005-904486-1. ISBN 1-55337-835-0. Glossary; Index; C.I.P. [K, EP Vol. 43 No. 2 p. 87]

630 AGRICULTURE

Apples. Farmer, Jacqueline. (Illus. by Pyhllis Limbacher Tildes.) Watertown, MA: Charlesbridge, 2007. 32pp. \$16.95. ISBN 978-1-57091-694-6. C.I.P. [EP, EI Vol. 43 No. 6 p. 277]

Pet Science: 50 Purr-fectly Woof-Worthy Activities for You and Your Pets. Gunter, Veronika Alice, and Rain Newcomb. (Illus. by Tom LaBaff.) NY: Sterling, 2006. 80pp. \$14.95. 2005024860. ISBN 1-57990-786-5. Glossary; Index; C.I.P. [EI, EA Vol. 43 No. 2 p. 87]

800 LITERATURE

Multiplying Menace: The Revenge of Rumpelstiltskin. Calvert, Pam. (Illus. by Wayne Geehan.) Watertown, MA: Charlesbridge, 2006. 32pp. \$16.95. 2004023072. ISBN 1-57091-889-9. C.I.P. [K-EI Vol. 43 No. 2 p. 88]

Old Mother Bear. Miles, Victoria. (Illus. by Molly Bang.) San Francisco: Chronicle Books, 2007. 32pp. \$16.95. 2006011651. ISBN 0-8118-5033-1. C.I.P. [K-EI Vol. 43 No. 3 p. 137]

BEST BOOKS 2007

The Very Best Bed. Raye, Rebekah. (Illus.) Gardiner, ME: Tilbury House, 2006. 32pp. \$16.95. ISBN 0-88448-284-7. [K Vol. 43 No. 3 p. 137]

Films

330 ENERGY, ENVIRONMENT, NATURAL RESOURCES

Energy and Resources. Cambridge Educational, P.O. Box 2153, Charleston, WV 25328-2153; 2007. (From the Cambridge Core Science Series: GeoBasics.) Color. 21 minutes. DVD: \$89.95. [EI-C, T, GA Vol. 43 No. 5 p. 231]

Swim for the River. Bullfrog Films, P.O. Box 149, Oley, PA 19547; 2006. 56 minutes. DVD/VHS: \$250.00. [EA-YA, C, T, GA Vol. 43 No. 4 p. 186]

360 SOCIAL ISSUES

Fetal Alcohol Exposure: Changing the Future. Films for the Humanities and Sciences, Inc., Box 2053, Princeton, NJ 08543-2053; 2007. Color. 31 minutes. DVD: \$149.95. [JH-C, GA Vol. 43 No. 5 p. 231]

520 ASTRONOMY

Most of Our Universe Is Missing: Dark Matter and Dark Energy. Films for the Humanities and Sciences, Inc., Box 2053, Princeton, NJ 08543-2053; 2006. Color. 50 minutes. VHS/DVD: \$149.95. [YA, C, T, GA Vol. 43 No. 2 p. 90]

The Sun. Films for the Humanities and Sciences, Inc., Box 2053, Princeton, NJ 08543-2053; 2006. Color. 60 minutes. DVD: \$149.95. [YA, C, GA Vol. 43 No. 4 p. 186]

530 PHYSICAL SCIENCES

The Path to Nuclear Fission: The Story of Lise Meitner and Otto Hahn. Filmmakers Library, 124 East 40th Street, New York, NY 10016; 2007. Color. 56 minutes. DVD: \$325.00. [YA-GA Vol. 43 No. 6 p. 280]

The Way Cool Game of Science: Matter. Disney Educational Productions, 500 S Buena Vista Street, Burbank, CA 91521-6307; 2007. (From the Bill Nye the Science Guy Series.) 30 minutes. DVD: \$49.95. [EI, EA Vol. 43 No. 6 p. 280]

550 EARTH SCIENCES

Environmental Issues and Human Impacts. Cambridge Educational, P.O. Box 2153, Charleston, WV 25328-2153; 2007. (From the Cambridge Core Science Series: GeoBasics.) Color. 22 minutes. DVD: \$89.95. Teacher's guide. [EA-YA, GA Vol. 43 No. 6 p. 280]

Expedition EarthScope. Bullfrog Films, P.O. Box 149, Oley, PA 19547; 2006. (Prod.: Earth Images Foundation.) Color. 27 minutes. [JH-C, T, GA Vol. 43 No. 2 p. 90]

Weather. DK Multimedia, 375 Hudson St. / Floor 2, New York, NY 10014; 2005. (From the DK Eyewitness DVD Series.) 25 minutes. \$12.99. [EA, JH Vol. 43 No. 1 p. 44]

570 LIFE SCIENCES

Episode 1: The Violent Past. Ambrose Video Publishing, 145 West 45th Street, 11th Floor, New York, NY 10036-6603; 2006. (From the Miracle Planet Series.) Color. 50 minutes. DVD: \$199.00 (series, 5 programs).

Episode 2: Snowball Earth.

Episode 3: New Frontiers.

Episode 4: Extinction and Rebirth.

Episode 5: Survival of the Fittest.

[YA, C Vol. 43 No. 4 p. 187]

Traits and Heredity. Visual Learning Company, 25 Union Street, Brandon, VT 05733; 2006. Color. 14 minutes. Teacher's guide. [EI-JH Vol. 43 No. 3 p. 138]

610 MEDICAL SCIENCES, PSYCHIATRY

The Origins of AIDS. National Film Board of Canada, 1123 Broadway, Suite 307, New York, NY 10010; 2006. Color. 43 minutes. [YA, C, T, GA]

930 ARCHAEOLOGY

Archaeology: Can You Dig It? Chip Taylor Communications, 2 Eastview Road, Derry, NH 03038-4812; 2007. (Prod.: CCI Releasing, Inc.) Color. 25 minutes. DVD: \$99.00. [EP-JH Vol. 43 No. 4 p. 187]

ADULT BOOKS

300 SOCIAL SCIENCES, ANTHROPOLOGY

Guernsey, Lisa. *Into the Minds of Babes: How Screen Time Affects Children From Birth to Age Five*. NY: Basic Books, 2007. xvi+287pp. \$25.00. 2007021043. ISBN 978-0-465-02798-9. Index; C.I.P.

GA ★

This book's journalist-author, Lisa Guernsey, seeks guidance from research to make healthy decisions about the use of television with preschool children. Will too much viewing delay their cognitive and social development? How much difference does a choice of content make?

The effects of television on children have been on America's research agenda for decades, so Guernsey asks, What is known for sure?

Finding practical parental guidance in the sea of technical research will try anyone's soul. But, not easily discouraged, Guernsey reads, interviews researchers and parents, visits research centers, and observes children watching television and interacting with computer software.

As a veteran reporter, Guernsey finds, first, researchers voicing undocumented claims about the adverse effects of TV. Second, she finds inconsistent results. Third, Guernsey talks with published experts who advise her to apply her mother's intuition when research falls short. Fourth, Guernsey describes many insightful projects.

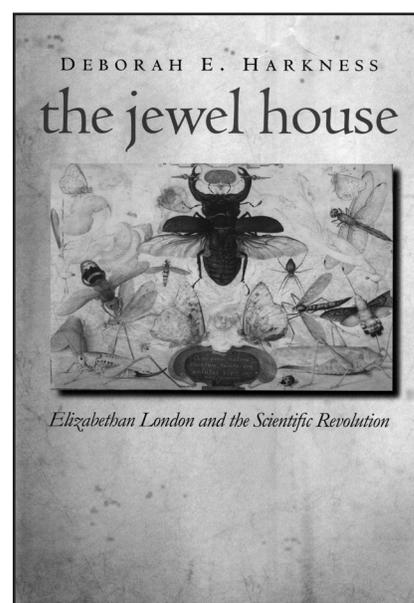
In short, *Into the Minds of Babes* is well written, abounds with provocative questions, and engages real mothers and active researchers in a discussion that is timely for bewildered, but responsible, parents seeking guidance in America's expanding media age. —William E. Roweton, *Chadron State College, Chadron, NE*

500 PURE SCIENCE

Harkness, Deborah E. *The Jewel House: Elizabethan London and the Scientific Revolution*. (Illus.) New Haven, CT: Yale, 2007. 368pp. \$32.50. ISBN 978-0-300-11196-5.

C, T ★★

In *The Jewel House*, Deborah Harkness explores Elizabethan London, where an assortment of English and foreign merchants, alchemists, goldsmiths, teachers, artisans, clockmakers and others, both men and women, shared a keen interest in the study of nature and set the stage for the Scientific Revolution. Harkness examines six episodes of scientific inquiry in Elizabethan London during the late 16th and early 17th centuries. Together, they clarify the twists and turns as medieval philosophy gave way to the empirical culture that typified the Scientific Revolution. Sir Francis Bacon is generally regarded as the father of modern science, but in *The Jewel House*, Harkness provides solid evidence that this distinction must be shared with



many of his London contemporaries whose collaborative efforts helped lead to modern science.

The text is illustrated with reproductions of pages from contemporaneous notebooks and printed publications. Appended are 36 pages of notes and a 30-page bibliography, listing many original manuscripts and publications from the period. (The copy I reviewed was an uncorrected page proof that did not include any index.)

The Jewel House is an invaluable resource for anyone interested in the history of science or the history of European culture. I recommend the book highly. —Clarence J. Murphy, emeritus, East Stroudsburg University of Pennsylvania, East Stroudsburg, PA

ADULT BOOKS

510 MATHEMATICS

Bogolyubov, N.N., G. K. Mikhailov, and A. P. Yushkevich, (Eds.). *Euler and Modern Science.* (Illus; from the MAA Tercentenary Euler Celebration Series.) Washington, DC: Mathematical Association of America, 2007. xiv+425pp. \$59.95. ISBN 9780883855645. Index.

C, T Ac

Approximately half the articles in this collection are prepared from papers presented in Moscow and Leningrad in 1982 on the 275th anniversary of Euler's birth. They focus on "The development of Euler's ideas in the modern era," discussing not only Euler's specific contributions to modern science, but subsequent theories that derive from those ideas. The remaining articles provide perspective and background information for readers not immediately familiar with the subject matter.

Many of the articles are of general interest and do not require significant knowledge of science or mathematics. Among other things, these articles place Euler in his historical and political context. For example, a short article on Euler's surviving manuscripts and notebooks explains why, after all these years, scientists and historians still struggle to uncover the full extent of his contributions to, and understanding of, science.

The technical papers generally require a significant college-level understanding of physics and mathematics. They show the truly amazing breadth of Euler's contributions across a wide range of topics, including mathematics, hydrodynamics, astronomy, physics, and even music theory.

This collection provides a nice balance between technical and nontechnical articles. It illustrates why the investigation of Euler's ideas and contributions is as interesting and rewarding today as it has been for more than two centuries. —Patrick D. Smit, Capitol College, Laurel, MD

570 LIFE SCIENCES

Environmental Literacy Council and the National Science Teacher's Association. *Resources for Environmental Literacy: Five Teaching Modules for Middle and High School Teachers.* (Illus.) Arlington, VA: NSTA Press, 2007. xxvii+190pp. \$29.95. 2007009438. ISBN 978-1-93353-115-1. Index; C.I.P.

T ★★

The teaching units in this book are superb. Having been organized by someone with training in the "Understanding by Design" curriculum development process, they include clear learning goals and essential questions, complete lesson plans and student materials, and formative assessment options. The middle school unit topics are "Biodiversity" and "Global Climate Change." The high school topics are "Earthquakes, Volcanoes, and Tsunamis"; "Genetically Modified Crops"; and "Radioactive Waste." Having these turnkey units ready to implement is a gift for teachers who are moving more toward Understanding by Design (UbD) units, wanting to incorporate ethical or otherwise controversial topics to enliven a science course or seeking interesting applications for science topics already taught. The one caveat I have is that many of the student activities are based on learning from Web sites. This approach is great for students with easy access to the Internet, but may prove an insurmountable obstacle for schools with dial-up, limited, or no student access to the Web. Being a Washington State teacher, I am compelled to point out that the photo of a volcanic eruption on page 65 does not seem to be of Mount St. Helens, as the caption implies. —Mare Sullivan, Bellevue Christian School, Clyde Hill, WA

Friend, Tim. *The Third Domain: The Untold Story of Archaea and the Future of Biotechnology.* (Illus.) Washington, DC: Joseph Henry Press, 2007. 296pp. \$27.95.

2007006291. ISBN 978-0-309-10237-7. Index; C.I.P.

C, T ★

This book is the story of the discovery of a new "root" on the tree of life. It is an exemplary telling of the overturning of a paradigm, happening as we write, and of the lives of the scientists involved. That is the good news. The bad news is that it is a somewhat rambling discourse and there are many errors or misunderstandings of fact by the author, an ex-science reporter for USA Today.

Up until about 1970, it was believed that all life existed in two forms—prokaryotes and eukaryotes—a very early division that led to two main branches of life. Then, in the 1970s, Carl Woese, a biophysicist at the University of Illinois, began describing microorganisms that did not fit into either of these groups. These organisms, subsequently named Archaeobacteria, are the strange bugs that are found thriving in boiling hot springs, in crude oil, in methane seeps, in glacial ice, beneath the driest deserts, and in thermal vents in the ocean floor—as the author says, "totally hip microbe[s] living without oxygen at pressures that would crush your head and temperatures that would boil a cow" (p. 9). Their potential seems to be unlimited for generating biofuels, creating pharmaceuticals and useful agricultural agents, and cleaning up hazardous waste. They may also play a role in global warming, which alone is reason enough to try to understand them.

The book is structured as the author's discovery and is thus sometimes a bit rambling. There are two introductory chapters, then a chapter on Carl Woese, one on Karl Stetter, one on the microbes that are eating the Titanic, one on a dive into a hot springs, and, finally, one on the possibilities of life in outer space. The last chapter discusses the uses of the archeobacteria. By far the best chapter is the one on Woese, which describes the derision heaped upon him by the scientific establishment when he first suggested that there was a form of life that was neither

prokaryotic nor eukaryotic, and how his ideas eventually prevailed.

The mistakes are surprising for a book printed under the auspices of the National Academy. It is a shame that the Academy didn't provide some scientific/editorial assistance. The worst errors are in the author's attempts to describe basic science; for example, he says that amino acids (rather than sequences of amino acids) are created by the genetic code (p. 34), that strings of three nucleotide bases of RNA instruct a cell to manufacture individual amino acids (p. 38), and, later, that amino acids are also called peptides (p. 48). He tries to explain redox reactions and calls hydrogen a fuel at one point and a catalyst at another (p. 23). These are just examples, and there are others. He also has several historical facts wrong, such as saying that horizontal gene transfer was discovered in 1998 (p. 27) and that Rosalind Franklin worked in the laboratory with Watson and Crick. (p. 66).

Still, the book is a mind-expanding journey and valuable if read as such, and not as a basic science text. —Donna H. Duckworth, University of Florida, College of Medicine, Gainesville, FL

Kirkland, Jane. *No Student Left Indoors: Creating a Field Guide to Your Schoolyard.* (Illus.; A Take a Walk Teacher's Guide.) Lionville, PA: Stillwater Publishing, 2007. 178pp. \$49.95. 2007903982. ISBN 978-0-9709754-5-4. Index; C.I.P.

T ★

Designed for teachers looking for ways to raise students' EIQs (environmental and ecological IQs), this volume gives information and practical tips on how to help students discover and record their observations about nature in the schoolyard or neighborhood. The book also shows teachers how to incorporate the information presented into their existing curriculum and standards.

The book's six chapters provide everything a busy teacher needs to create a successful project. One chapter is devoted entirely to explicating the definition of a

schoolyard field guide; the chapter not only clarifies the scope of the project, but also serves to motivate readers into attempting to carry it out. Other chapters offer instructions on how to plan a field guide project, as well as information on how to teach students observation and data collection skills. Information on how to set up and keep a student nature journal is also included. An extremely helpful chapter presents technical information on the ways one can go about creating a field guidebook. If the teacher decides not to make such a book, he or she can thoughtfully turn to some of the nature-related exercises and forms that can be duplicated or downloaded from the book's Web site. Additional features in this well-thought-out book include a list of resources (recommended books, the addresses of Web sites) and a list of supplies and equipment.

This easy-to-use, attractive spiral-bound book is peppered with small black-and-white photos and illustrations. The author has included everything a teacher would need to create a successful guilt-free project. The informative sidebars offer insights from other teachers, as well as pointing out additional sources of information and injecting a few cautionary notes. The exercises have been tested and will work.

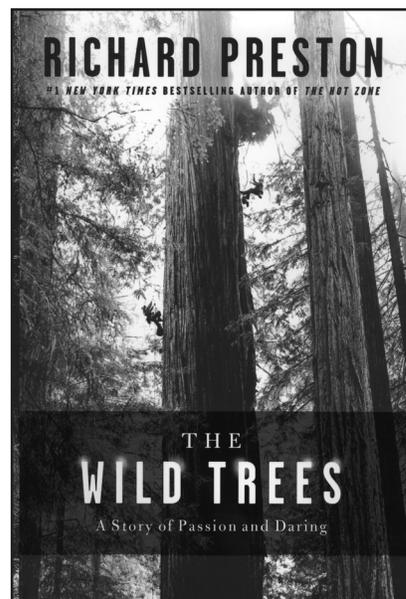
Since the demand for science education is growing while the time (and resources) available to teach science via field trips is shrinking, this book provides helpful timesaving tips for a backyard enrichment opportunity that can (and should) be available to all students. The book is sure to be a welcome addition to professional collections. Nothing else pulls so much information together in one printed source. —Dona Helmer, Anchorage School District, Anchorage, AK

580 BOTANICAL SCIENCES

Preston, Richard. *The Wild Trees: A Story of Passion and Daring.* (Illus.) NY: Random House, 2007. 302pp. \$25.95. 2006048646. ISBN 978-1-4000-6489-2. Glossary; C.I.P.

GA ★★

Imagine the Hollywood film *The Right Stuff* and the story line of that history of the beginnings of the American space program. Now substitute test pilot Chuck Yeager and the first *Project Mercury* astronauts with a group of men and women who sought the tallest trees (Yeager's Mach 1) and determined to climb them. Then imagine the small band of growing professional astronauts (from *Friendship 7*) reincarnated two to three decades later as a small band of about the same size who pioneered the climbing of tall trees. Both stories are "high" adventures, both took intestinal fortitude, both would see death amongst the practitioners, and both would continue to tackle their respective Everests with ever-improving equipment and methods. In *The Wild Trees*, author Richard Preston introduces us to, at first, just a few intrepid adventurers, untrained in botany (or, for that matter, any science), who sought to both discover and climb the tallest coast redwoods



in Northwestern California (the primary area in which this species is to be found). As their fascination with the venture grew, so did their desire to get advanced degrees in the plant sciences and to learn the ways of the biology of the trees—especially the astonishing new world of the temperate rain-forest canopy: The astronauts' Moon was hardly as unknown as forest canopies, redwood or otherwise. From the 1970s onward, the techniques of tall-tree climbing—the rope systems, the tools, the tricks of the trade—are all here, carefully laid out in a historical study. This is less a history of science or a book purely about science (although we do learn a lot about canopy architecture, some of its denizens (the lichens that inhabit *Sequoia sempervirens*, for instance), and a bit of other biology) than it is a book about adventure. Although Preston (well known for his hit book *The Hot Zone: The Story of the Ebola Virus* (New York: Random House, 1994) does not write in the same manner as, say, William Beebe (admittedly of an earlier time and style), *The Wild Trees* cannot but help put one in mind of Beebe's *Half Mile Down* (New York: Duell, Sloan and Pearce, 1951).

Preston tells a similar tale of adventurers 300 feet up, oftentimes tethered by a single, slender thread not unlike Beebe beneath the seas—and just as much in danger—as “canopy science” entered its beginning age. Anyone who can't put down Beebe—or Tom Clancy, for that matter—must pick up Richard Preston's latest book and discover the characters (Preston is a master in telling us about the people who founded tall-tree climbing) and how they taught themselves to climb the trees (much more demanding than you might imagine). It is indeed a story about “passion and daring.” —Donald J. McGraw, *San Diego, CA*

620 ENGINEERING

de S. Cameron, Nigel M., and M. Eillen Mitchell. *Nanoscale: Issues and Perspectives for the Nano Century*. (Illus.) NY: Wiley, 2007. xxvi+462pp. \$79.95. 2007006004. ISBN 978-0-470-08419-9. Index; C.I.P.

C Ac

The stated intent of this volume is to “fuel the conversation” about nanotechnology by presenting complementary “opinion pieces by visionaries, boosters, and critics” and “reviews of key areas of ethical, legal, and societal questions.” The book tries to cover a huge amount of different kinds of information from vastly different perspectives. In trying to be an exhaustive source about every aspect of nanotechnology and every possible related concern, it succeeds only in being exhausting—not exhaustive. The two people compiling and editing this collection of essays are affiliated with the Center on Nanotechnology and Society at a law school. One is a director of the Institute of Psychology; the other is “a frequent commentator on network television,” credentials not very promising for a book about science. Some very valuable objective information, such as the widespread usage of nanoscale ingredients in human personal care products in spite of evidence of toxic effects in animal species, is buried among speculation on subjective topics such as religion and human nature. The quality of the chapters is inconsistent, with some excellent and others poor. —Michele Bremer, *Bremer & Associates, Monument, CO*

810 SCIENCE FICTION

Gee, Henry (Ed.). *Futures from Nature: 100 Speculative Fictions from the Pages of the Leading Science Journal*. ; 2007. 320pp. \$24.95. ISBN 978-0-7653-1805-3.

GA ★

Futures from Nature is an edited collection of 100 one-page science fiction vignettes published in *Nature* magazine from 1999 to 2006. The authors are respected scientists, journalists, and science fiction writers speculating about ideas and attitudes concerning the future and what it might be like if one were to pursue certain scientific trends and pathways.

The short articles include a wide range of subject matter directly or indirectly related to space and space exploration, evolution and evolutionary change, social changes and human interactions, time machines and time travel, alien visits to earth, robots and their interaction with other robots and humans, the growth and replacement of human body parts, computer input, programming and control, and environmental and biological changes due to natural mechanisms, as well as human-induced changes from greenhouse gases, nuclear and nonnuclear warfare, and specific biological mechanisms and the subsequent worldwide spread of viral- and bacterial-based organisms and diseases. Even in such short individual articles, readers are provided with enough material to be able to grasp, relate to, and think about the outcome of a basic methodology to speculate about the truth or the illusion of truth in a given theory. —Felix M. Massey III, *Rising Sun High School, Rising Sun, IN*

JUNIOR HIGH & YOUNG ADULT



BOOKS

150 PSYCHOLOGY

Ottaviani, Jim. *Wire Mothers: Harry Harlow and the Science of Love.* (Illus. by Dylan Meconis.) Ann Arbor, MI: G.T. Labs, 2007. 84pp. \$12.95. ISBN 978-0-9788037-1-1.

JH ★

Wire Mothers is the latest historical science book from Jim Ottaviani and publisher G.T. Labs. In graphic novel format, it tells the story of Harry Harlow and his groundbreaking experiments with monkeys that scientifically showed the importance of love in child development. Starting with his arrival at the University of Wisconsin in 1930, Ottaviani recounts the progression of Harlow's research from learning to mother love, socialization, and depression through 1959. The basic components of the different experiments are depicted—in particular, the ones on mother love, with emphasis placed on various aspects of the scientific method, such as repetition and controls. The methods and results presented make a compelling case for the conclusions Harlow reached. Along with the experiments themselves, background is provided on the struggles Harlow went through, both personal and professional, to conduct his research. Although at times these background stories are cumbersome and uninteresting, they do accurately present a broad picture of the relevant issues. With its lackluster humor and weak plot, this graphic novel is unlikely to grab readers not already interested in the subject, but it is an accurate

introduction to this important work in psychology. —*Emily Rodriguez, Alachua County Library District, High Springs, FL*

500 PURE SCIENCE

Ottaviani, Jim. *Dignifying Science: Stories about Women Scientists.* (Illus.) Ann Arbor, MI: G.T. Labs, 2003. 142pp. \$16.95. ISBN 0-9660106-4-7.

EA-YA ★

This volume presents fictionalized stories of six women who overcame discouragement to become successful in the male-dominated scientific world of the 20th century. The usual suspects are here—Marie Curie, Lise Meitner, Rosalind Franklin, Barbara McClintock, and Biruté Galdikas—and one unusual addition: Hedy Lamarr (yes, the actor; she patented an idea for a secure communications system during World War II). The book is also unusual in that the stories are presented in pen-and-ink graphic novel form, with each story illustrated in a different style.

The six accounts are snapshot views of the women's struggles and successes, and they have been embellished for the sake of the story. The drawings and dialogues humanize the scientists in a way that words alone can't, but the young reader will not learn a lot about the person or her scientific work. For example, in the 10 pages on Barbara McClintock, her work is named rather than explained, and

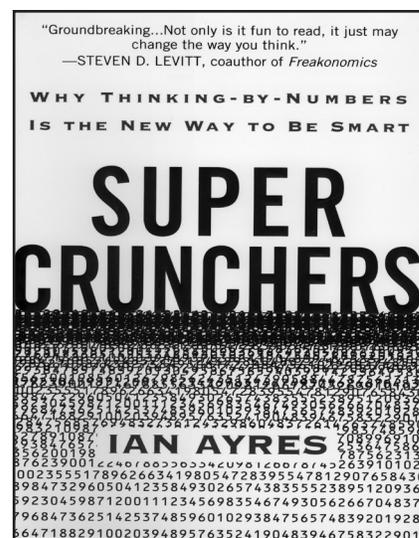
only a few main events of her life are covered. Fortunately, there a 17-page "Notes and References" section that fills in some gaps and guides the interested reader to books and Web sites to learn more about these dignified scientists. —*Susan Styer, Illinois Mathematics and Science Academy, Aurora, IL*

510 MATHEMATICS

Ayres, Ian. *Super Crunchers: Why Thinking-by-Numbers Is the New Way to Be Smart.* (Illus.) NY: Bantam, 2007. 260pp. \$25.00. 2007013804. ISBN 978-0-553-80540-6. Index; C.I.P.

YA, C, GA ★

Number crunching is the statistical analysis of data; super crunching is (apparently) number crunching



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with massive amounts of data. The favorite form of analysis is regression, which produces equations that show the relation of a quantitative trait of interest (such as the productivity of a baseball player) to a number of other quantitative traits (such as number of hits, number of times on base, and so on.) Regression, then, generates better decisions than intuition or experience. (Hire this player, but not that one, because of the results of the regression equation.) The second method (which is really not number crunching, but rather a method of collecting numbers) is randomizing trials, a method used most frequently in medical research on drug effectiveness. For example, a set of patients with similar and measurable symptoms is randomly assigned to receive either a new drug or an old one (or a placebo); later, any reduction in the patients' symptoms is assessed by physicians who are ignorant of the drug assignments. In this not completely persuasive book, Ian Ayres, passionate supporter of super crunching, describes its use by companies that eschew intuition or personal experience in making decisions.—*Dean H. Harper, University of Rochester, Rochester, NY*

520 ASTRONOMY

Clark, Stuart. *Earth*. (Illus.; from the Universe Series.) Westport, CT: Heinemann, 2007. 32pp. \$19.75. 2002004060. ISBN 978-1-4329-0175-2. Glossary; Index; C.I.P.

Goss, Tim, and Geza Gyuk. *The Outer Planets*. 2007003569. ISBN 978-1-4329-0180-6.

Goss, Tim. *Jupiter*. 2002000815. ISBN 978-1-4329-0176-9.

Goss, Tim. *Mars*. 2002000814. ISBN 978-1-4329-0178-3.

Goss, Tim. *Mercury*. 2002000813. ISBN 978-1-4329-0177-6.

Goss, Tim. *Saturn*. 2002000811. ISBN 978-1-4329-0181-3.

Goss, Tim. *Venus*. 2002000812. ISBN 978-1-4329-0184-4.

Prinja, Raman K. *Comets, Asteroids, and Meteors*. 2002004058. ISBN 978-1-4329-0162-2.

Prinja, Raman K. *The Moon*. 2002004011. ISBN 978-1-4329-0167-7.

Prinja, Raman K. *Stars and Constellations*. 2002004059. ISBN 978-1-4329-0182-0.

Prinja, Raman K. *The Sun*. 2002004057. ISBN 978-1-4329-0171-4.

JH Ac

The Universe series is a richly illustrated series of 11 books on the solar system, stars, and constellations, all following basically the same format. Each book includes a "fact file" on the subject of its title, a glossary, an index, and a list of books for further reading. None of the books include any Web site addresses for further reference.

The series is intended for grades 7 and 8, ages at which many readers have enough information about astronomy to wonder whether some of what is written is correct. Readers would be right to question numerous issues in the series—issues that might have been handled differently or correctly.

In the book on Mercury, it is stated that "It is not very big, but it glows" (p. 4). That Mercury glows would suggest that the planet is giving off its own light, not reflecting sunlight. Later, it is asserted that "As a result, all of the planets except Pluto..." (p. 15). Of course, Pluto is no longer considered a planet. Given the copyright date of 2008, this error should have been corrected. In *Earth*, the caption of the illustration states (apparently in contradiction to what was just cited), "This picture shows all eight planets of our solar system from Mercury to Neptune..." (p. 5). In the same volume, the statement "the lowest spacecraft orbit Earth at 322 miles" (p. 13) is incorrect by some 100 miles.

In the book on Mars, it is stated that "The best time of night to see it depends on the time of year." This

statement suggests that Mars is seen the same time of night from year to year, depending on the time of the year. That, of course, is not correct.

The Outer Planets states, "Scientists think that Uranus and Pluto might have been knocked into their tilted positions by large meteors long ago." Meteors are the flashes of light one sees when meteoroids burn up in the Earth's atmosphere. This error is repeated in *Comets, Asteroids, and Meteors*, which should be correctly titled *Comets, Asteroids, and Meteoroids*. Page 4 states, "Meteors are pieces of rock..."; no, meteoroids are pieces of rock. Page 6 gives the correct definition of a meteor.

Although all these errors do not invalidate the usefulness of this series, they are rather obvious and should have been corrected.—*Thomas A. Lesser, Christian Brothers Foundation, New Rochelle, NY*

Schaaf, Fred. *The 50 Best Sights in Astronomy and How to See Them*. (Illus.) NY: Wiley, 2007. 280pp. \$19.95. 2006036221. ISBN 978-0-471-69657-5. Index; C.I.P.

YA, C, T, GA ★

It gets tiring seeing so many books with such superlative adjectives in their title, although in this case one would be hard pressed to argue with the author's enthusiastic choices of astronomical sights to see. The book is an excellent resource for the new observer or the veteran amateur astronomer. It will certainly be sitting on the shelves of many, so that they can find something of interest on any clear, dark night. The author begins with a chapter on what he calls "basic information for astronomical observers" (p. 5). This chapter is an excellent overview, with lots of the jargon of observational astronomy. The "best" sights in astronomy are presented in an unusual manner, from largest field of viewing to smallest. The star charts examined would be more useful if they were larger—perhaps a full page instead of the half page for each seasonal observing chart.

The descriptions of the objects are thorough, detailed, and very colorful—in fact, too colorful: The colors reportedly observed in a 13-inch-diameter telescope are, frankly, hard to believe. Professionals and amateurs alike are well aware that human color vision is almost nil in the darkest environs. Color vision acuity is due to the retinal cones, and they require more photons to interpret color. This issue aside, and ignoring an error or two in the temperatures of stars, perhaps due to scale conversions, the book will provide many hours of interesting banter for amateur astronomers and laypersons alike. —*Harold Geller, George Mason University, Fairfax, VA*

530 PHYSICAL SCIENCES

Krauss, Lawrence, with a foreword by Stephen Hawking. *The Physics of Star Trek.* (Illus.) NY: Basic Books, 2007. 250pp. \$15.00. ISBN 978-0-465-00204-7. Index.

YA, C, T, GA ★★

Sometime during 1995, I read the book *The Physics of Star Trek*, by physicist Lawrence Krauss. It was fascinating to read the author's exploration of many aspects of the TV series from a scientist's perspective. I was not a Trekie, but I had watched the original series and found the discussions very interesting. The book seems to have started something of a trend that led to others such as *The Science of Harry Potter*, and the *Physics of Baseball*. All of these books were written with the idea of linking real science to everyday activities and entertainment. Now the author has come out with a new edition of *The Physics of Star Trek* that has much new information relating to the subsequent *Star Trek* movies and the spin-off series. In addition, he revisits many of the issues discussed in the first edition in light of advances in science and technology in the 13 years since publication of that edition. One of the most interesting features is a comparison of scientific

concepts and technologies used in the series that have some possibilities of being realized in the future (the 23rd century) with those which are utterly impossible to realize. One could argue, as some do, that things which seem impossible now are really limited by our knowledge of physics in this, the first decade of the 21st century. For those who are really interested in the science in the science fiction series, it is wise to remember that Gene Roddenberry said that the real purpose of the starship Enterprise was to serve as a vehicle, not for space travel, but for storytelling (p. 144). However, *Star Trek* can also inspire curiosity about the universe. All of this is interesting and entertaining and can lead to endless discussions on the science used in all the *Star Trek* series. However, Steven Hawking, who wrote the foreword to the book, reminds us that today's science fiction is often tomorrow's science fact. The physics that underlies *Star Trek* is surely worth investigating. To confine our attention to terrestrial matters would be to limit the human spirit (p. xiii). —*Larry G. Evans, Computer Sciences Corporation, Greenbelt, MD*

540 CHEMISTRY

Gardner, Robert. *Chemistry Projects with a Laboratory You Can Build.* (Illus.; from the Build-A-Lab! Science Experiments Series.) Berkeley Heights, NJ: Enslow, 2007. 128pp. \$23.95. 2006021071. ISBN 978-0-7660-2805-0. Glossary; Index; C.I.P.

EA, JH ★

Chemistry Projects with a Laboratory You Can Build is a guide to creating an at-home laboratory for conducting chemistry experiments. After a brief introduction describing the foundations of chemistry, the scientific method, and science fair projects, the author outlines the requirements for a basic home-based lab, which include a lab notebook, chemicals, materials, and equipment. Many of the recommended items can

be found around the house, although some may have to be purchased or borrowed. Companies that sell these supplies are listed in the appendix. Safety rules and ample warnings are provided in the introduction and throughout the text. The book describes 28 experiments, organized into four chapters: "Chemistry and Weighing," "Chemical Reactions and Their Speeds," "Acids and Bases," and "Fun with Chemistry." Each experiment is outlined with background information, a list of materials, and detailed instructions. Most have accompanying illustrations and charts. In each instruction section, the author asks questions that can be answered with the results obtained from the experiment. Experiments that can be developed into science fair projects are designated. The experiments are mostly independent, but a few require information or substances obtained from other experiments. Generally, the experiments are engaging and would be fun activities for children who are curious about science. Access is provided by a table of contents and an index, and there are brief lists suggesting further readings and science Web sites for children. I recommend this well-written hardbound book for public and school libraries, as well as for families who enjoy learning about science.—*Michael Knee, State University of New York, Albany, NY*

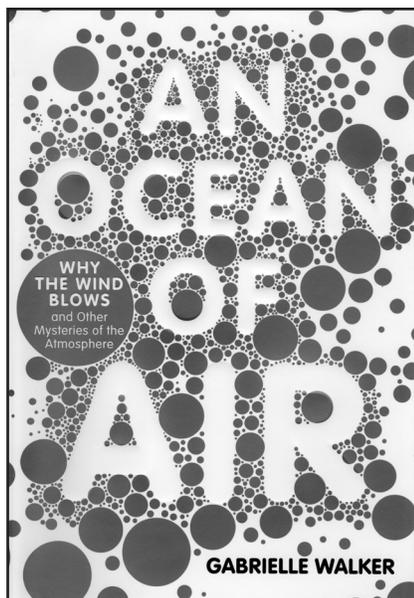
550 EARTH SCIENCES

Walker, Gabrielle. *An Ocean of Air: Why the Wind Blows and Other Mysteries of the Atmosphere.* (Illus.) San Diego: Harcourt, Inc, 2007. 272pp. \$25.00. 2006032359. ISBN978-0-15-101124-7. Index; C.I.P.

YA, C, T, GA ★★

This book is part instructive science, part science history, and part science prose, as well as easy and fun to read. The author grabs the reader's attention in the prologue by vividly relating the famous free fall of U.S. Air Force test pilot Joseph

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Kittinger from the edge of space (over 100,000 feet) through all of the layers of the atmosphere. In well written prose that is usually relevant and is periodically punctuated with lively anecdotes, the author makes the reader aware of the historical setting in which these activities, investigations, and analyses take place. The science and mechanics of each atmospheric layer are presented with a fresh clarity, easily understood by the general reader. The science of the Earth's atmosphere is discussed from the ground up (so to speak), beginning with Galileo and Torricelli in the 17th century and progressing through the all-important discussion of the discovery of oxygen—the nature, actions, and role of which are explained thoroughly and in a tantalizing manner. The reader will never again view oxygen, the creator and destroyer, in the same way. Then the reader is taken through the various scientists' investigations and discoveries pertaining to carbon dioxide, the mechanics of the lower atmosphere, and the winds of the Earth and how they work. An account of Columbus tells of his discovery of the easterlies, or trade winds, and the author discusses as well the Coriolis effect (which she argues should be named the Ferrel effect, after William Ferrel, the 19th-century American scientist

whom Gustave-Gaspard Coriolis anticipated), and the discovery and workings of the jet stream.

The second part of the book is devoted to how the outer layers of the atmosphere were discovered and how they protect life on Earth. There is a fascinating account of the discovery of Freon®, followed by the story of Marconi's transmission of wireless messages over great distances and the discovery of the Van Allen radiation belts. The book has only two general illustrations, but this in no way detracts from what is otherwise a well-developed, well-written, instructive, and entertaining volume, rounded out by an extensive list of further readings, an index, and a comprehensive section of endnotes. I recommend this book highly for the general reader (including young adults) who would like to learn about the composition of the Earth's atmosphere and the historical setting surrounding when key discoveries were made—and do so in a most entertaining manner. —Roger L. Payne, *U.S. Geological Survey, Reston, VA*

560 PALEONTOLOGY

Dingus, Lowell, Luis M. Chiappe, and Rodolfo Coria. *Dinosaur Eggs Discovered! Unscrambling the Clues.* (Illus.; from the Discovery! Series.) NY: Twenty-First Century Books, 2007. 112pp. \$30.60. 2006102636. ISBN 978-0-8225-6791-2. Glossary; Index; C.I.P. **JH, YA, GA ★★**

This slim book is a sequel to Chiappe and Dingus's *Walking on Eggs* (an *SB&F* Best Book of 2001 selection for junior high and high schools), except that the authors' seniority is reversed and a third coauthor is added. The book summarizes 1997 and 1999 paleontologic expeditions to a spectacular fossil-collecting site in Patagonia where the authors discovered hundreds of eggs laid by 40-foot-long titanosaurs dinosaurs on a floodplain of Late Cretaceous age.

Some of the eggs contained embryos, and many were found in clutches within nests excavated by the huge sauropods. The exciting find of a skeleton of a probable predator of the titanosaurs is also described. An innovative format posing the reasoning followed in answering nine questions about the site, its former environment, and its former inhabitants provides an introduction to scientific methodology for younger readers. An especially thought-provoking question discusses the shaky scientific premises and methods used in re-creating living dinosaurs in the movie *Jurassic Park*. Color photographs taken in the field and excellent color reconstructions further enhance the book. Of special interest are feature boxes on a yellow background that amplify topics mentioned in the text. Among the topics discussed in these boxes are radioactive dating, dinosaur classification, and plate tectonics. A helpful glossary, a list of suggested further readings, the URLs of supportive Web sites, and a useful index are included. —Joaquin Rodriguez, *emeritus, Hunter College, New York, NY*

Llewellyn, Claire. *Ask Dr. K. Fisher about Dinosaurs.* (Illus. by Kate Sheppard.) Boston: Kingfisher, 2007. 32pp. \$10.95. ISBN 978-0-7534-6106-8. Glossary; Index. **EA, JH ★**

Ask Dr. K. Fisher about Dinosaurs is a clever, humorous introduction to the basics of dinosaur biology. Written in the style of a newspaper advice column, the book presents dinosaur data in the form of responses to letters from "troubled" dinosaurs and their parents. For example, a letter, titled "Butting In" from a concerned Pachycephalosaurus mom, describes how her son's behavior has changed. Once a "nice boy," he is now "head butting the other males in the herd." The mom fears that he will get hurt and possibly get into trouble. Dr. K. Fisher responds that there is nothing to worry about, that this is normal behavior as her son nears sexual maturity, and anyway, with a head

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of almost solid bone, he is unlikely to be hurt. In this way, the author presents some basic information about dinosaur reproductive biology.

Two-page spreads about dinosaur hunters, dinosaur mating, dinosaur nesting, and dinosaur defenses are interspersed among nine “letters” and Dr. Fisher’s responses. A glossary, a guide to dinosaur names (with pronunciation and meaning), and an index conclude the book, which looks like a very well put together scrapbook, with photographs, letters, borders, stamped patterns, pressed plants, and other treasures organized around and within the letters. Cute cartoon dinosaur caricatures are found on every page. While covering quite a lot of dinosaur biology in a very creative way, the clever and humorous presentation would be most appreciated by a youngster who already knows a bit about dinosaurs. It’s nice to see that creative people can find new ways to engage and educate young readers about these fascinating creatures from the past. —Charles Watt, Omaha Public Schools Career Center, Omaha, NE

Markle, Sandra. *Outside and Inside Woolly Mammoths.* (Illus.) NY: Walker & Company, 2007. 40pp. \$17.95. 2006027621. ISBN 978-0-8027-9589-2. Glossary; Index; C.I.P.

EA Ac

Photos of mammoth remains are sure to get the attention of many young readers. Aimed at introducing some basic research findings to children, the text of this book introduces information such as the results of analyses of fossilized stomach contents. We learn that mammoths ate grass for the most part, but they plucked wild flowers—especially buttercups, it seems—when they had the opportunity to do so. Throughout, mammoths and elephants are compared in anatomy, physiology, behavior, and range. The small ears of mammoths may have contributed to their extinction, given they had a small surface area across which to release excess heat. “Bone” and “teeth” appear in the glossary; “genetic code” and [computer] “programmed” do not. A half page

of “more woolly facts” before the acknowledgments contains material that belongs in the text. —Diane M. Calabrese, Silver Spring, MD

570 LIFE SCIENCES

Ball, Edward. *The Genetic Strand: Exploring a Family History Through DNA.* NY: Simon & Schuster, 2007. 288pp. \$25.00. ISBN 978-0-7432-6658-1.

YA, C, T, GA ★

How much can strands of DNA reveal about their owners: a family’s inheritance of genetic diseases; secrets about causes of death; perhaps even secrets about a family’s heritage? In *Genetic Strands*, author Edward Ball plays amateur forensic detective after making a chance discovery of hair samples collected from some of his ancestors 150 years ago. Driven by curiosity, Ball embarks on a journey to learn as much as he can from these aging hair strands and then uses the information to fill in gaps in the family history. Readers are enticed to read to the end of the book, to learn how much the DNA evidence contradicts the family’s claims of white racial purity.

Ball uses his adventure to explain how DNA can be taken apart and examined to reveal its information. Just as important, his story clarifies how much DNA can tell us—occasionally contradicting the expectations built up on popular detective shows and by the media.

In the concluding chapters, Ball goes to great lengths to remove science from any pedestal of admiration that is not deserved. For example, he points out how long sequences of nucleotides generated by gene sequencing alone are not the “secret of life” as is often claimed by the press. Ball’s points, however, are built up by blaming scientists for what he describes as their almost mystical awe of science; he ignores the greater role of the media. Still, he does well to build the case of how and why DNA evidence today is not infallible. —Corliss Karasov, NeuronFarm, Madison, WI

Broll, Brandon. *Microcosmos: Discovering the World Through Microscopic Images from 20 × to Over 22 Million × Magnification.* (Illus.) NY: Firefly Books, 2007. 422pp. \$29.95. ISBN 978-1-55407-237-8.

EA-YA, T, GA ★★

This volume is an extremely well-produced collection of colorized micrographs that are technically good and quite interesting. The computerized colorization superimposed on the images derived from several microscopic techniques enhances the inherent interest of the images and adds piquancy to the plates. My nine-year-old granddaughter picked the book up and began paging through it. She was immediately enthralled! The plates stimulated a lively discussion (on microscopy, the individual plates, and science in general) over the next two hours. One can hardly think of an accolade that surpasses stimulation of interest and appreciation by both a nine-year-old child and an experienced electron microscopist (myself)! The foreword suggests that all images are derived by scanning electron microscopy. This is inaccurate and hopefully will be corrected in future editions of the book. Also, I would prefer the addition of slightly more information about each plate in the captions. This, however, is clearly a matter of personal preference, and the captions are informative as written and do much to enhance the value of the book. I recommend Brandon Broll’s *Microcosmos* highly. —Richard M. Jamison, emeritus, Louisiana State University Medical Center, Shreveport, LA

Cousteau, Jacques, and Susan Schiefelbein. *The Human, the Orchid, and the Octopus: Exploring and Conserving Our Natural World.* NY: Bloomsbury, 2007. 320pp. \$25.95. ISBN 978-1-59691-417-9.

YA, C, T, GA ★

For Career Day in fourth grade, Mrs. Ramsey assigned us to report on our desired careers. Like thousands

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of others who saw Jacques Cousteau's films, I thought that his job would be one to shoot for. I actually pursued this career for almost a dozen years. Then, after going some other directions in life, in 1993 I had the opportunity to introduce Cousteau as the speaker at an international conference I had organized in Paris. I told him my story. He put one arm around my shoulders, smiled that famous smile, and said, "Good thing you found another line of work, John, as I haven't quit yet!"

I mention this little event because, in this, his last book, penned during the last 10 years of his life (he died in 1997), Cousteau reveals both his wit and humor, as well as his concern for the planet in general. Written from the view point of an explorer, naturalist, and global citizen, *The Human, the Orchid, and the Octopus* shows Cousteau at his most philosophical. In this autobiography, he examines his own adventures, his sometimes reckless behavior, and his unique perspectives as they changed with time, experience, travel, and tragedy as his ideas and views became honed by the years he spent in pursuit of a better understanding of the oceans, our environment, and people's actions that affect either one of them.

Somewhat chronological, the book digresses with each incident Cousteau describes, as he reflects on moments in time, usually with a focus on his personal or intellectual growth and his growing sense of stewardship for the earth. Routinely reflecting on his self-admitted youthful arrogance (he felt invulnerable while tormenting sharks or facing his own impending death or the death of friends), he describes his insights into the true meaning of fear. Yet, with each new insight, Cousteau formulated new rules and reasons for living, many of which he transferred to his ideas for protecting nature and the oceans he studied so extensively.

While the first three chapters are relatively personal, the next five, with their emphasis on water, air, and overfishing, stress how humans are destroying the environment. Then Cousteau tackles nuclear energy and wastes in Chapter 9, at 56 pages, the

longest of the book. Although all his points seem accurate, he provides no real supporting evidence or references, and the chapter (as well as some of the others) becomes almost a rant (though perhaps justified) that borders on tedium.

Still, overall, this is an interesting, informative, and valuable meander through the recollections and life experiences of an unusual man with unique opportunities to explore, examine, and experience the marine environment and to inform the public in dynamic and stimulating ways.

I recommend this book as a reference work (I don't think many will read it from cover to cover), as it features Jacques Cousteau speaking out on a number of environmental subjects and offering details of evidence (except for Chapter 9, which, as mentioned, cites hardly any evidence at all) that I have not seen in a single collection elsewhere. Unfortunately, there is no index, making it rather difficult to find information, even if one has already read the book. Suitable for high school and above, this book would be useful in stimulating discussion about environmental issues, personal pledges related to the environment, and questions regarding the processes and nature of science. —*John E. Penick, North Carolina State University, Raleigh, NC*

Everson, Ted. *The Gene: A Historical Perspective*. (Illus.; from the Greenwood Guides to Great Ideas in Science Series.) Westport, CT: Greenwood Press, 2007. xviii+188pp. \$65.00. 2007003661. ISBN 978-0-313-33449-8. Glossary; Index; C.I.P.

YA, C ★★

Preconceptions are a problem in science. We see what we expect to see, on the basis of our prior experiences. For the first hundred or so pages, I had the same problem with Ted Everson's *The Gene: A Historical Perspective*. I expected another book about modern genetics filled with new explanations thereof. I was wrong. Everson's book, part of a series called Greenwood Guides to Great Ideas in Science, is about the

gene as a concept—an evolving idea whose changing nature has had a most profound impact not only on life science, but on our society and economy.

Everson devotes a great deal of time to a discussion of the history of our understanding of heredity, beginning with the Greeks. Very few modern biology or genetics texts take the time to set up the historical perspective in which such thinkers as Darwin, Lamarck, and Mendel were developing their ideas. We often think of these 19th-century giants as making discoveries out of the blue. We don't consider that they were among the most highly educated people of their time. They were, of course, working within the context of all that was known at the time. Everson's book adds richness and context to their work.

He continues this same approach through the discoveries of the 20th century, always paying attention to relationships between and among scientists, and the working situations in which they found themselves. This added depth brings a deeper touch of humanity to such people as Morgan, Watson, Crick, and Franklin.

Although the book will be a valued resource for students of the history of science, it is even more instructive with respect to the nature of science. Everson does a masterful job of describing the evolution of the gene as a concept. He begins long before the term was coined, with the idea that some information is passed down from one generation to the next. He follows this line of thought by describing the observations of many thinkers from a variety of societies over hundreds of years. His discussion of the "modern synthesis" of biology is most useful.

The Greenwood Guides to Great Ideas in Science series is aimed at high school and college students of biology and is written at a level and in such a style that it should be most useful in the study of genetics and the nature of life science. I recommend *The Gene: A Historical Perspective* highly to all those interested in genetics or the history of science. —*Kevin Koepnick, City High School, Iowa City, IA*

JUNIOR HIGH & YOUNG ADULT BOOKS

Hall, Howard. *The Secrets of Kelp Forests: Life's Ebb and Flow in the Sea's Richest Habitat.* (Illus.; from the Jean-Michel Cousteau Presents Series.) Montrose, CA: London Town Press, 2007. 48pp. \$8.95. 2007000298. ISBN 978-0-9766134-9-7. Index; C.I.P.

EA, JH Ac

The Secrets of the Kelp Forest is part of the Jean-Michel Cousteau Presents series of books about marine life. The author, Howard Hall, is an experienced underwater photographer and filmmaker. The book contains a large number of exceptional photographs of organisms that live in and around kelp beds.

Although the book offers a good survey of the diversity of life in and around kelp beds, it gives few insights into the ecology or community structure of the beds. There is a brief discussion of the interactions among otters and among urchins, but most of the book is devoted to brief accounts of individual species. A short section describes the effects of pollution, overfishing, and climate change on kelp beds.

The biology of the individual species is presented accurately for the most part, but the author has a tendency to use anthropomorphic metaphors. For example, a garibaldi fish approaches a diver to "make friends," the kelp bed is a "supermarket" for some species, sea otters are "shoppers," and the kelp bed is a "playpen" for their young.

The book concludes with a single-page glossary and recommendations for further readings and related media. This book is a nice beginning to learning about kelp communities, but the suggested resources should be consulted as well.—*Erik P. Scully, Towson State University, Towson, MD*

Johnson, Rebecca L. *Ultra-Organized Cell Systems.* (Illus.; from the Micro Quests Series.) Brookfield, CT: Millbrook Press, 2007. 48pp. \$29.27. 2006036395. ISBN 978-0-8225-7138-4. Glossary; Index; C.I.P.

EA, JH ★★

Ultra-Organized Cell Systems is an introductory anatomy and physiology book designed for young readers in grades 5-8. It would be equally useful as a textbook in a classroom setting and as a library reference material to supplement the science curriculum in these grades. The book contains a wealth of accurate information presented clearly in a logical arrangement. Clever cartoon diagrams presented throughout the volume are fun and add to the understanding of the concepts illustrated. An excellent glossary with pronunciation guides explains the more complicated terms. An outstanding feature of the book is the use of micrographs to illustrate differences in structure described in the text. Micrographs of various types of connective tissue, such as tendons, bone, and cartilage (pp. 22-23), and of skeletal, smooth, and heart muscle tissue (pp. 25-26) are especially helpful in highlighting differences in these tissues.

The progression of molecules to form the components of cells is diagramed clearly on page 7. Then a diagram of a typical cell identifies its components. Physiological functions of the structures are described concisely. For example, mitochondria are identified with the statement, "Factories need power to run. So do cells. Mitochondria provide the power cells need for everything they do" (p. 10). Micrographs of skin, bone, cartilage, fat, nerve, and muscle cells clearly illustrate the concept that "Real cells have different shapes and sizes" (p. 12).

The organization of cells into tissues, tissues into organs, and organs into organ systems is explained clearly and concisely. Although the book's primary emphasis is on anatomical systems and their components, it also gives details about the physiological functioning of these systems whenever that is appropriate. For example, in describing the structure of the lungs, the author also describes the process of the intake of oxygen, its delivery to cells via red blood cells, and the release of carbon dioxide to the blood (p. 30).

Students who use this text will receive high-quality information about the organization of living organisms. The volume includes a page of references to books and Web sites for more information on anatomy and physiology.—*Celia L. Marshak, emeritus, San Diego State University, San Diego, CA*

Lynch, Wayne. *The Everglades.* (Illus.; from the Our World Ecosystems Series.) Minnetonka, MN: NorthWord, 2007. 64pp. \$16.95. 2006101497. ISBN 978-1-55971-970-4. Glossary; Index; C.I.P.

EA-YA, GA ★★

In this little volume, Wayne Lynch has done a masterful job transforming what might have been just another book on the Everglades into a gem worthy of a place on every school or public library bookshelf. After consuming it in a what seemed a few minutes, I felt like driving back roads to the edge of the glades and wading in myself just for an opportunity to duplicate a few of the eyeball-to-eyeball wonders he observed. His photographs are varied, striking, and appropriately labeled. The text is full of useful insights into the working of this wetland ecosystem and is presented in a warm, personal style. Proceeding from macro to micro systems, the author opens up windows on the vastness of Florida's saw grass expanse and then turns, for example, to relate the story of whirligig beetle clumps. He treats global and local threats to the glades with concern and without being preachy. Adults will like this book, and students will welcome a change from the usual textbook-style narratives other authors use to cover such important topics within a limited space.—*Chet Bolay, Cape Coral High School, Cape Coral, FL*

Schaller, George B. *A Naturalist and Other Beasts: Tales from a Life in the Field.* (Illus.) San Francisco: Sierra Club, 2007. 272pp. \$24.95. 2006051153. ISBN 978-1-57805-129-8. C.I.P.

YA, C, GA ★

JUNIOR HIGH & YOUNG ADULT BOOKS

This book focuses primarily on the behavior and natural history of large mammals on four continents and is written for nonscientists. The volume summarizes 55 years of large-mammal research and documentation of their habitat and behavior by author George B. Schaller and his family. The book begins in the Americas and moves to Africa. Asia is covered in multiple regions of South Asia, China, Mongolia, and, finally, in the Himalayas and the Tibetan Plateau. Some of the large mammals described are the caribou, jaguar, mountain gorilla, lion, cheetah, tiger, giant panda, Mongolian gazelle, and snow leopard. The focus on the interactions among the large mammals, humans, and habitats explores the personal and rewarding aspects of wildlife studies. Schaller explores local and indigenous peoples' relationships, negative and positive, with these animals. For example, the members of some local communities actively shoot jaguars and proudly display their pelts. While this practice may be offensive to some readers, it illustrates the reality of living with conflicts between predators and humans. Throughout each chapter, Schaller stresses the importance of preserving habitats, minimizing environmental degradation, and becoming and remaining aware of the key role of mammals in overall ecosystem functioning, as well as humans' responsibility to protect those mammals. For those readers who are interested in recent historical accounts of large-mammal populations and the changes in their status over time, this book is a good choice. —*Jennifer L. Rechel, USDA Forest Service, Riverside Fire Laboratory, Riverside, CA*

Somerville, Barbara A. *The Human Body*. (Illus.; from the Gareth Stevens Vital Science: Life Science Series.) Milwaukee: Gareth Stevens, 2007. 48pp. \$26.60. ISBN 978-0-8368-8441-8. Glossary; Index; C.I.P.

EA, JH ★★

The Human Body represents an ambitious effort on the part of the

author to cover human anatomy and physiology in a span of just 48 pages. All in all, this effort is laudably successful. The middle school student who needs to research the essentials of the human body and its functions will be well served if she or he uses this book as a primary reference.

The book has several attractive features. One of these is the inclusion of historical highlights relative to the human body. Factoids are scattered throughout the text in a fashion that captures the reader's attention and interest. The most notable attribute of the text is its incorporation of excellent graphics, namely, photos and diagrams. The artwork complements and enhances the written content.

All major body systems are covered admirably in the book, none in infinitesimal detail, but each with commendable accuracy. Although some science books written for this age group are "watered down" to the point of banality, Somerville's manages to explain complicated processes in a highly understandable and fresh manner. —*Alan R. Wasmoen, Mt. Michael Benedictine School, Elkhorn, NE*

580 BOTANICAL SCIENCES

Marinelli, Janet. *Plants: the Ultimate Visual Reference to Plants and Flowers of the World*. (Illus.) NY: DK Publishing, 2005. 512pp. ISBN 978-0756605896.

JH-C, GA ★

This book is subtitled 'The Ultimate Visual Reference to Plants and Flowers of the World'. If only!

The book is beautifully constructed with ample color photographs, maps, charts, and drawings. Despite the volume's comprehensive title, its actual focus is on rare, endangered, and invasive plants; the reader will find little or no information about basic, common plants. An excellent, if biased, introduction on the world of plants and global habits takes up nearly a quarter of the book. Considering that the volume is

a "product" of the Royal Botanic Gardens, Kew, I would have hoped for a more even representation of the view of the entire plant world and a less harsh tone regarding the dangers of plant extinction, invasive plants, and related fear topics.

About two-thirds of the book is an actual plant encyclopedia, but again, the emphasis is on the rare, and the information presented is not evenly representational. These chapters are oddly arranged from plant types (trees, bulbs, etc.), to taxonomic groups (grasses, ferns, orchids, etc.), to plants in various environments (alpine plants), an arrangement that just adds to the confusion. The index is essential to finding information on any specific plant, and here again, the reader should not expect an even representation.

One should not judge a person or a book by its companions, but this book is clearly a companion to the DK publication *Animal*, which meets its goals quite admirably. Considering the size and depth of *Plants*, the book never reaches its goals and barely aspires to comparison. As a pretty coffee-table book, it is fine, but it fails to fit its audience.

"Pretty and annoying" sum up the effort, leaving the need for a good reference on the plant world. —*James W. Waddick, Kansas City, MO*

590 ZOOLOGICAL SCIENCES

Hansen, Rosanna. *Caring for Cheetahs: My African Adventure*. (Illus.) Honesdale, PA: Boyds Mills Press, 2007. 32pp. \$16.95. 2006018240. ISBN 978-1-59078-387-0.

EA, JH Ac

This book details the author's volunteer experiences with the Cheetah Conservation Fund (CCF) in Namibia, Africa. Suitable for fourth-to-seventh graders, the book is written as a journal, but includes general information on cheetahs. The organization could have been improved; for instance, the beginning seems abrupt and without any real

JUNIOR HIGH & YOUNG ADULT BOOKS

introduction. Not until page 18 does the author explain why CCF was formed and what it does. The book jumps back and forth between some background information on cheetahs and the author's responsibilities at CCF (feeding and exercising the cheetahs). CCF conducts research on wild cheetahs and rescues or rehabilitates injured or "problem" cheetahs. Although page 24 states that 10 years of research by CCF found that cheetahs "almost always" ate wild animals and not farm animals, CCF also raises guard dogs that the organization distributes to local farmers to protect their livestock from cheetahs. A detailed explanation of this seeming contradiction is not given. This book provides preliminary information on cheetahs for young students, and the photographs of captive cheetahs are beautiful. —*Shelley Spohr, Office of Natural Resources, Mashantucket Pequot Tribal Nation, Mashantucket, CT*

Heuer, Karsten. *Being Caribou: Five Months on Foot with a Caribou Herd.* (Illus.) NY: Walker & Company, 2007. 48pp. \$17.95.

2006027651. ISBN 978-0-8027-9565-6. Index; C.I.P.

EA, JH ★★

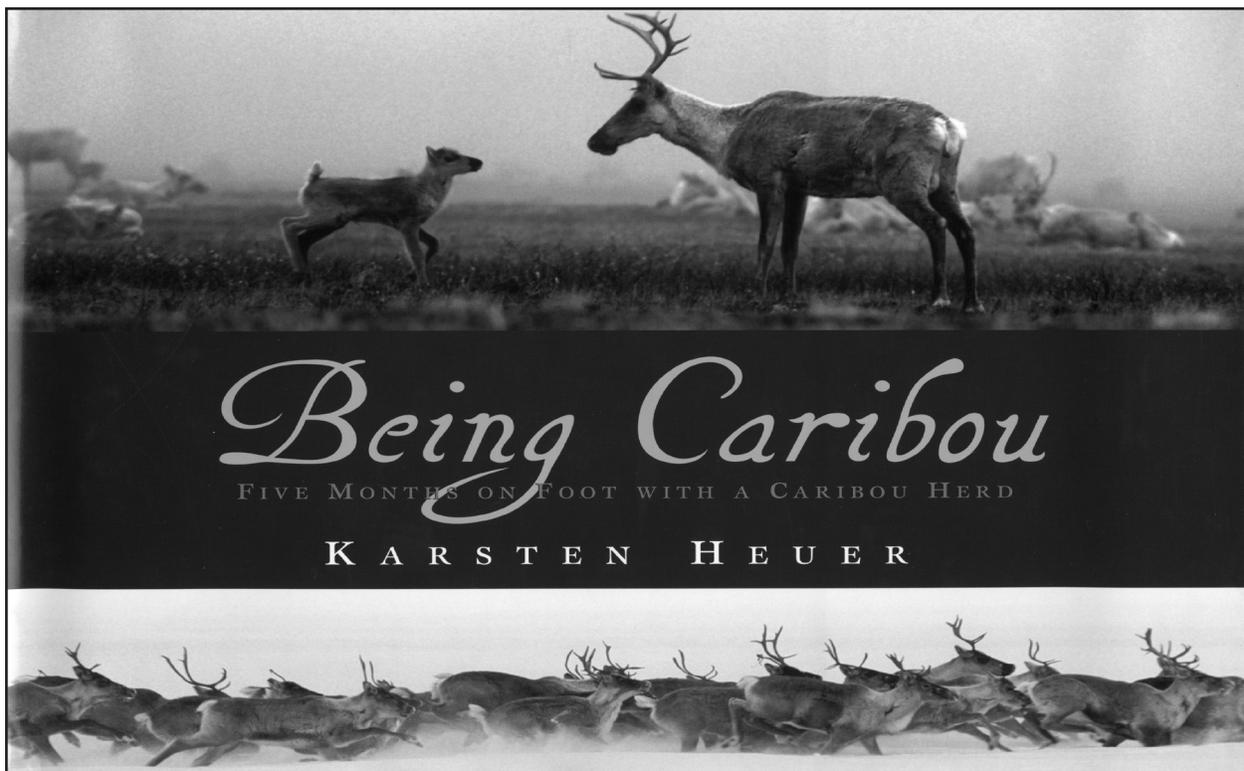
Being Caribou stands out among wildlife books for this age level because of the vivid accounts of the real-life adventures of Karsten Hueur and his wife. Together, they face blizzards, bears, insects, and wolves as they hike with a caribou herd to the northernmost reaches of North America. Their journey will appeal to readers who are enthralled with today's world of "extreme" sports and adventures. People unable to take showers, weight loss, and visions aren't usually recognized in books about wildlife, yet these events help readers to understand what the author endured in attempting to document the breathtaking migration of caribou to the Arctic Wildlife Refuge. Hueur does an excellent job of documenting the migration as he describes caribou movements, feeding, birthing, playing, and avoidance of predators (as well as the role of predation). Furthermore, he empathizes with the native Gwich'iin people, giving readers an understanding of the

human dimension of his journey. By the end of the book, readers will feel exhausted by the expedition and concerned about the plight of the caribou. Hueur closes the book by guiding readers to additional information about caribou and motivating readers to action to help these struggling animals. —*Jorie M. Favreau, Paul Smith's College, Paul Smith's, NY*

O'Connell, Caitlin. *The Elephant's Secret Sense: The Hidden Life of the Wild Herds of Africa.* (Illus.) NY: Free Press, 2007. 240pp. \$24.00. 2006052189. ISBN 978-0-7432-8441-7. Index; C.I.P.

YA, C, T, GA ★

In this volume, Caitlin O'Connell has written a fascinating account of her experiences in Namibia, Africa, while doing research on elephants. Her research involves many aspects of elephant biology, but her specialty centers around communication, especially seismic communication. This form of communication involves picking up sound waves through the feet. In fact, elephants often stand on their toes to enhance reception.



JUNIOR HIGH & YOUNG ADULT BOOKS

Nor are elephants unique in the animal world in using seismic sound reception, but given their enormous size, this method of sensory input seems counterintuitive to us.

To further her studies, O'Connell and her coworkers found funding and obtained permission from a number of Namibian government agencies to set up a research station. She had to be accepted by the locals and understand their traditions. The research team had to endure inhospitable weather, as well as all manner of insects, lions, hyenas, hippos, and crocodiles, none of which had any concern for the safety and comfort of the team members.

The researchers learned a great deal about elephant behavior over some 13 years of study. They were able to observe the hierarchical relationship found in elephant herds and even develop ways to identify specific individuals. The team performed seismic communication experiments with Donna, an elephant that was extraordinary research subject.

The book is well written, exciting to read, and full of noteworthy information. It will give readers new insights into the intelligence, sense of self, and overall behavior of elephants. It also gives a most realistic description of the life of a field biologist. I recommend this book highly for all readers who are interested in elephants, African wildlife, and animal behavior. —*Edward I. Saiff, Ramapo College of New Jersey, Mahwah, NJ*

Roots, Clive. *Animal Parents.* (Illus.; from the Greenwood Guides to the Animal World.) Westport, CT: Greenwood Press, 2007. xxiii+204pp. \$65.00. 2007008803. ISBN 978-0-313-33986-8.

YA, C, GA ★★

Animal Parents, by Clive Roots, gives detailed descriptions of how vertebrate animal parents care for their young. A comprehensive introduction describes the general process of parental care, from before conception to weaning. Subsequent chapters group animals by the type of care they provide for their

young and include many interesting examples. The author surveys a broad range of animals, including fish, amphibians, reptiles, birds, and mammals. Each chapter begins with a general description of the reproductive cycle and parental care in that particular group of animals. Specific examples of these animals are then described in detail and are compared and contrasted with other species within the group in question. The animal groups themselves are also subdivided. For example, bird species are classified as cold-blooded chicks or warm-blooded chicks. The inclusion of the scientific classification, evolutionary history, habitat, and physiology of these animals completes these thorough descriptions. Black-and-white and color photographs enhance the text. The glossary and index at the end are helpful resources for locating information within the text. Although a bibliography is included, it is surprisingly short, given the amount of information that is included in the text. Many of the references found in the bibliography are to Web sites, which are not always accurate or consistent sources of information. A summary at the end of each chapter would also be helpful. Despite these minor shortcomings, this book is a fascinating and rich resource of information on vertebrate animal parental care. —*Heather L. Kimmel, Emory University, Atlanta, GA*

Singer, Marilyn. *Venom.* (Illus.) Plain City, OH: Darby Creek Publishers, 2007. 96pp. \$19.95. ISBN 978-1-58196-043-3. Glossary; Index.

EA ★★

Venom is a book that deals with toxic animals. The author loads the text with color photographs and abundant statistics. Examples range from oceanic to desert creatures and include animals found indoors or in backyards. Among the species covered are spiders, insects, snakes, toads, birds, mammals, and jellyfish. A brief life history of each animal is presented, and the mechanism of delivery, and the effects, of their toxins is discussed. In the chapter on spiders, the author focuses on the

three mostly deadly ones found in the United States: the black widow, the brown recluse, and the hobo spider. Current research dealing with the use of spider venom in insecticides is examined. The section on the gila monster describes the new diabetes drug that helps moderate blood sugar levels. Dr. John Eng developed this hormone after researching gila venom. The book is full of examples of ecological relationships, helpful hints such as what to do for snake bites and bee stings, and environmental issues such as the dangers of plastics in the sea. An extensive glossary and a fine index are included, as is a two page "Webliography." This book will be a good addition to a library reference section. —*Mary Jane Davis, Red Bank Catholic High School, Red Bank, NJ*

Vadon, Catherine. *Meet the Shark.* (Illus.) Minnetonka, MN: Two-Can Publishing, 2007. 48pp. \$15.95. 2007001073. ISBN 978-1-58728-598-1. Glossary; Index; C.I.P.

EA-YA, T, GA ★★

"Sharks!" The very word stirs deep emotions in most people: horror, fear, and panic. But some people have other reactions: admiration, awe, and even affection! Who are these strange people? They are people who are well informed about sharks. These ancient animals have roamed the seas for 450 million years, and they are vitally important members of today's marine ecosystems, from tropical shallow waters to the dark, cold, abyssal depths. Although sharks are indeed efficient killing machines, it has been shown that humans are far more likely to be injured by falling coconuts than by shark attacks. Among the very numerous books on sharks, this slim volume is a standout—a profusely illustrated treasure trove of accurate information. The shark story is told in an informal and conversational style. Topics covered include legends, history, paleontology, anatomy, classification and diversity, "record holders" (the largest, smallest, deepest traveling, etc.), behavior, senses, reproduction, relationships with humans, sharks as food, and

the sobering section on the threat to sharks by overfishing. The book ends with an interesting quiz, a useful glossary, and an index. Meet the shark is a worthy addition to the popular literature on sharks. —*David L. Pawson, Smithsonian Institution, Washington, DC*

600 TECHNOLOGY

Gelb, Michael J., and Sarah Miller Caldicott. *Innovate Like Edison: The Success System of America's Greatest Inventor.* (Illus.) NY: Dutton, 2007. 320pp. \$25.95. ISBN 978-0-525-95031-8.

YA, C, T ★

As businesses and organizations aggressively seek out creative individuals and innovation is valued in all enterprises today, this book serves as a guide to innovation's best practice, modeled after the successful accomplishments of Thomas Edison. In the initial section, the creative genius of Edison is described and a historical perspective is presented of his efforts and achievements, as well as his follies. Edison's early beginnings and his attempts at entrepreneurship are revealed in an engaging narrative into which elements of his family life are infused. The second section of the book addresses in detail Edison's five competencies of innovation. A separate chapter describes each competency: a solution-centered mind-set, kaleidoscopic thinking, a full-spectrum engagement, mastermind collaboration, and super-value creation. Each of the competencies is further specified by distinct elements. For example, in the third competency, full-spectrum engagement, the elements Edison suggested are the twin forces of intensity and relaxation, serious and playfulness, sharing and protecting, complexity and simplicity, and solitude and teaming. The third and final section focuses on Edison's legacy and the attainment of innovation literacy. The Edison Innovation Literacy Blueprint is

delineated as a guide in establishing goals and monitoring progress. Steps are offered, as are assessment rubrics, for each of the competencies, with a literacy tracking chart. In addition, the address of a Web site for assessments and scoring gauges is listed. As society increasingly recognizes and emphasizes innovation, this book has the potential to serve as a catalyst for creativity in daily life, work, and the home. —*Marylin Lisowski, Eastern Illinois University, Charleston, IL*

610 MEDICAL SCIENCES, PSYCHIATRY

Allen, Arthur. *Vaccine: The Controversial Story of Medicine's Greatest Lifesaver.* (Illus.) NY: Norton, 2007. 523pp. \$27.95. 2006019480. ISBN 978-0-393-05911-3. Index; C.I.P.

YA, C, T, GA ★★

In *Vaccine: The Controversial Story of Medicine's Greatest Lifesaver*, the author has taken on a major challenge in attempting to tell the story of vaccines in one 500-page volume, although he appears to have pulled off the task with aplomb. He tells a story of great triumphs and disasters with a cast of colorful, determined, brash, and boastful scientists and self-promoters who doggedly pursued the potential of vaccines, from their shaky beginnings in the early 18th century to their roles in halting the scourge of polio epidemics and assisting in the virtual eradication of smallpox in the mid- to late 20th century. More than any branch of medical science I can think of, vaccine development needed help from individuals with hubris and chutzpah to spare, to counter the many financial and political obstacles in their path. In this volume, the author has produced a lively work of nonfiction rather than a dry scientific tome; an in-depth understanding on infectious diseases is not a prerequisite to enjoying the book. His research and interviews bring the story alive; an

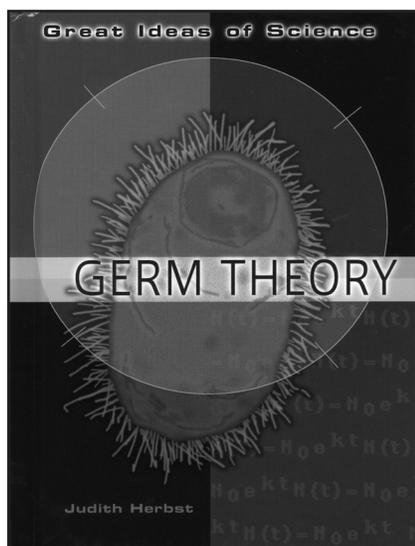
extensive bibliography is provided for each chapter for readers wishing to learn more. If there is a criticism that pertains to this volume, it is that the book may be too ambitious: Each of the three parts ("Origins," "Golden Age," "Controversy") is a topic worthy of its own book. I found the story of the development and testing of the different vaccines more interesting than the ethical and legal ramifications described in the latter part of the book, although I recognize that the two are intertwined and that it is important to appreciate the root causes of fears that have led some parents to question use of certain vaccines. Despite the ethical disputes, disappointments, and casualties, it's clear that vaccines have had an immense beneficial impact on public health worldwide and will continue to be vital tools in the armamentarium employed in the war against infectious diseases. —*John Charles Pugh, Bethesda, MD*

Herbst, Judith. *Germ Theory.* (Illus.; from the Great Ideas in Science Series.) NY: Twenty-First Century Books, 2007. 80pp. \$28.50. 2005008809. ISBN 0-8225-2909-2. Glossary; Index; C.I.P.

EA-YA, GA ★★

In a simple, readable form for young students, *Germ Theory*, by Judith Herbst, presents the factual history of how scientists learned about the causation of disease and how they developed theories that revolutionized the health of our public. It was as late as 1854 when John Snow, a British physician, used a novel approach to solve the London cholera epidemic. By mapping the disease sites and understanding the water distribution, Snow learned that the Thomas River pump was the culprit. A simple map of disease locations helped define the problem. With the removal of that pump handle, the epidemic was controlled. Snow's brilliant deduction set standards for epidemiology as we know it today. The book continues with descriptions of scientific luminaries solving disease after

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disease. No one had thought that not washing your hands when leaving the laboratory was the cause of transmitting a disease to women in labor and causing the high mortality rate associated with childbed fever. In 1847, Ignanz Semmelweis realized the importance of hand washing and set standards for aseptic techniques. In 1879, Louis Pasteur discovered the bacteria that had been transmitted between the cadaver dissecting room via unwashed hands and the cause of childbed fever. We have come a long way from the theories of spontaneous generation as the cause of disease to that of germs. Many believe that the understanding of the role of germs in causing disease may be the single most important contribution by the science of microbiology to improving public health. This book may encourage many young students to become fascinated with public health and microbiology. —*Jean L. Fourcroy, U.S.U.H.S., Bethesda, MD*

620 ENGINEERING

Hardesty, Von, and Gene Eisman, with a foreword by Sergei Khrushchev. *Epic Rivalry: The Inside Story of the Soviet and American Space Race.* (Illus.) Washington, DC: National Geographic Society, 2007. 250pp. \$28.00. 2007017393. ISBN

978-1-4262-0261-2. C.I.P.
YA, C, T, GA ★★

This wonderful book's detailed narration of the remarkable flowering of technology and creativity that began our space age makes the reader feel intensely the rapid and glorious flow of history. This is a true saga, full of daring, danger, death, ego conflicts, and triumphs whose impact and grandeur have been poorly communicated thus far to the succeeding generations. It tells of the immense challenges of space flight and of the leaders, designers, engineers, astronauts, and cosmonauts in the two competitive enterprises to "loose the bonds of Earth." All readers should love this fabulous and profusely illustrated combined story, one highly concealed back in the U.S.S.R. As we read, we experience the ideas and personalities of Von Braun and Korolev (the Soviet "Chief Designer"), the thrills and perils of Grissom and Leonov, and, of course, the amazing adventures of many others, too. When Ed White had to return to his *Gemini 4* capsule after the first American spacewalk, a barely tethered jaunt of incredible exhilaration, he said "It's the saddest moment of my life." Throughout the volume, the reader is strongly reminded that human progress and the purpose of life itself reside in spheres far more elevated than just those of commerce, entertainment, politics, or war. —*Steven Kilston, Ball Aerospace & Technologies Corp., Boulder, CO*

Jedicke, Peter. *Scientific American: Great Moments in Space Exploration.* (Illus.) Broom-all, PA: Chelsea House, 2007. 72pp. \$30.00. 2006014774. ISBN 978-0-7910-9046-6. Glossary; Index; C.I.P.
EA, JH ★

This book written for young readers as an introduction to the history of space exploration is well illustrated with numerous photos, many from NASA. The history is well told, with the achievements of the Soviet Union, in particular, covered quite nicely. The author continually refers to "the

former Soviet Union" in describing that nation's space achievements. I would have preferred a simple statement near the beginning of the book explaining that the Soviet Union no longer exists, rather than this repetitious referral.

Numerous small errors detract from the book. In one instance (page 20), the author refers to Alan Shepard's flight as taking place "a few months later" than Yuri Gagarin's flight when, in fact, the interval was only 23 days. On page 30, it is mentioned that many lunar photographs were returned by *Ranger 6*, *Ranger 7*, and *Ranger 8* when, in fact, it was *Ranger 7*, *Ranger 8*, and *Ranger 9* that were the successful missions. The launch of *Explorer 1*, America's first satellite, took place on January 31, 1958, not February 1, as the book mentions on page 17. President Kennedy's challenge of landing a man on the moon by the end of the decade of the sixties was understood to mean by the end of 1969, not 1970 (page 23). Despite these errors, this book is a good introduction to space exploration; hopefully, it will grab the interest of its readers. —*Robert N. McCullough, Ferris State University, Big Rapids, MI*

630 AGRICULTURE

Bial, Raymond. *The Super Soybean.* (Illus.) Morton Grove, IL: Whitman, 2007. 40pp. \$16.95. 2007014165. ISBN 978-0-8075-7549-9. Index; C.I.P.
EA-YA ★

This is a fact-packed book about soybean farming in the U.S. Midwest. As a Hoosier farm owner, I salute the authenticity of the book. It is truthful about the plant and about crop production. It does not, however, talk about the negative side of soy production in the industrialized farming of today, with its costly seed, fertilizer, and pesticides. Furthermore, the rapidly increasing organic production of soybeans for human consumption is given only a passing mention, and the perceived

struggle between soy for food and soy for gasohol is not mentioned. The book would be most meaningful to young people in soy-growing states, where male farmers, sometimes overweight, are readily recognizable. This is a library book, not a text, that could be especially useful for student research on contemporary agriculture, on the myriad uses for soil, and, to a lesser extent, on crop processing.

Major genetic research on soy is taking place in several Asian countries today, but this research is not mentioned. The pictures of Henry Ford with a soy car and the well-known picture of G.W. Carver are especially pleasing. I wonder if any soy research is going on at Tuskegee today. —*Jane H. Bock, University of Colorado, Boulder, CO*

810 SCIENCE FICTION

Richards, Douglas E. *Prometheus Project—Captured!* (From the Prometheus Project Series.) Eagleville, PA: DNA Press, 2007. 160pp. \$7.95. 2006035913. ISBN 978-1-933255-33-0. C.I.P.

EA, JH ★

Scientific sleuths Ryan and Regan Resnick are back in action in this second book in the Prometheus Project series, and just as they did in *Trapped*, the brother-and-sister pair busily applies logic and the power of observation to decode the mysteries of the secret alien city built by the enigmatic Qwervy. Only this time they find themselves captured by an alien and his band of human mercenaries, with the intent of taking over the mind of the President of the United States (hence the title). The sleuths must then use their

newly developed telepathic powers and sound scientific reasoning (e.g., “Always test every hypothesis,” and “Never assume anything”) to outwit the alien and foil his plans.

Like the previous book, what sets *Captured* apart from similar science fiction for young people is the consistent application of valid scientific principles that drive the plot. The use of ideas such as the survival value of pain and the basic principles of behavioral psychology make this book all the more interesting, and when combined with fast-paced writing, the actual science behind the fiction turns a potentially ordinary alien-invasion story into a gripping tale that holds even adult readers’ attention to the very end. Like the late Isaac Asimov, author Douglas Richards knows that compelling, valid scientific speculation makes for equally compelling reading, and I look forward to his next offering in this series. —*David L. Brock, Roland Park Country School, Baltimore, MD*

910 GEOGRAPHY, TRAVEL

Day, Leslie, with an introduction by Michael Bloomberg. *Field Guide to the Natural World of New York City.* (Illus. by Mark A. Klingler.) Baltimore: Johns Hopkins, 2007. 342pp. \$55.00. 2007006288. ISBN 978-0-8018-8681-2. C.I.P.

JH-C, GA ★★

Often, field guides describe a group of organisms over a large area—for example, the “Amphibians and Reptiles of North America”—or only a specific group of organisms in the area, such as “New York City Trees.” By contrast, this gem

of a field guide covers New York City parks and the 48 Forever Wild wilderness preserves. Each site is described—its location; size; habitats; human, geological, and national history; and access routes to the area. The book also describes the invertebrates, vertebrates, plants, and geological events found on those sites. The etymology of the organisms’ names, their places of origin, common localities where they are found, the organisms’ ecological roles, and descriptions with photos and beautifully drawn plates are presented.

Any visitor or resident is able to select a given habitat, organism, or historical site to visit. For example, at Pelham Bay Park in the Bronx, remnants of walls behind which 600 Massachusetts Patriots held off the British forces and prevented them from going North can still be seen (for the history buff). The Inwood Marble outcrops are at Isham Park, which is the site of the marble seen in the old Trinity Church graveyard headstones on lower Broadway (for the geologist). The botanist could see the most ancient forest in Manhattan, on the Eastern Ridge walk at Inwood Hill Park.

I recommend the guide highly for public and high school libraries and for amateur and professional naturalists. One need only take it, and not a knapsack full of guides, to find the things one wants to explore. —*Robert Goode Patterson, Tustin, CA*

CHILDREN'S BOOKS

500 PURE SCIENCE

Abraham, Mollie. *EduFables, Volume 1.* (Illus.) Lexington, KY: Jason R. Taylor Associates, 2007. 115pp. \$12.95. ISBN 97-0-930622-06-0. Index.

K-EI Q

This book could have been titled *Dr. Seuss meets Sir Isaac Newton*. The cartoon-type drawings and the “fables” are reminiscent of Dr. Seuss. However, embedded in the fables are complex higher level mathematical and scientific concepts that the author indicates are “traditionally taught to students in junior high school through college” (p. v).

According to the preface, “Each story is an educational fable designed to stimulate and develop a child’s creative thought process” (p. v). The back cover states that the materials are recommended for “pre-readers through 3rd grade.”

The book presents four “EduFables,” entitled “A Little Hanky Panky” (dealing primarily with optical illusions), “It’s Hunky Dory in the Magic Quami Forest” (Pascal’s triangle, probability, and statistics), “Hippity Hop, Hop, Hop to the Barber Shop” (infinite series, converging series, the “method of exhaustion”), and “Willie Orbit?” (gravitational attraction, trajectory, laws of motion). Following each fable is a section entitled “Appendix for Parents, Teachers and Older Siblings.” The materials presented in the appendices are complex, to say the least. Much of it is higher level mathematical concepts, complete with many equations. In fairness, it

must be noted that the author states, “The Appendices have been written on several levels. Any portion may be skipped without loss of continuity” (p. v). One wonders how many primary-level teachers or parents will be able to understand the information presented in the appendices. Perhaps bright teenaged siblings and parents who are engineers or scientists may be able to breeze through.

I have mixed reactions to the book. On the one hand, no doubt the cartoon drawings and the imaginative stories will appeal to young children: Names such as (king) “Murgatroid Throckmorton Hertzeltwertzel” (p. 1) may delight a young child who is listening to the story being read. On the other hand, one wonders how many beginning readers in grades 1-3 will be able to read the material independently.

The author, who is a well-trained mathematician and physicist, has had extensive experience in technical writing, but this is her first venture into writing for young children. The “fables” came into being when she wrote one for a young son. Several years later, she rediscovered the story and reworked it for her grandchildren. No doubt those children are very bright and have been nurtured by talented parents and grandparents. However, one wonders how much value the book will have for average children growing up in middle-class families or for economically disadvantaged children. In sum, this volume will appeal to a very limited audience. —*Jacqueline V. Mallinson, retired, Western Michigan University, Kalamazoo, MI*

Burgan, Michael. *Robert Hooke: Natural Philosopher and Scientific Explorer.* (Illus.; from the Signature Lives Series.) Minneapolis: Compass Point Books, 2007. 112pp. \$23.95. 2007004904. ISBN 978-0-7565-3315-1. Glossary; Index; C.I.P.

EI-YA ★

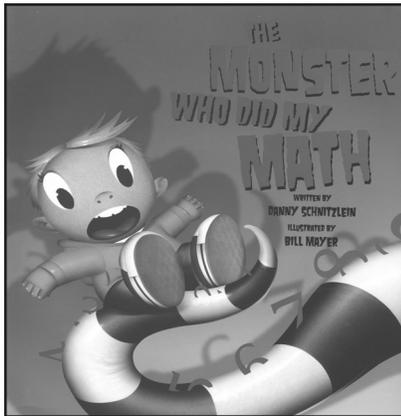
This well-documented, 112-page book will introduce middle and high school readers to the productive life story of Robert Hooke, a creative scientist, architect, and inventor with wide-ranging interests and an inquiring mind. Hooke provided insightful ideas and leadership in several science areas during the 17th century, a time of significant change in scientific thinking and understanding. Hooke’s publications revealed his intense curiosity about the natural world and a commitment to describe, understand, and explain a variety of phenomena with care. His work helped to shape the nature of modern science, as well as some of the science concepts students study in school science today. Organized as a series of episodes from Hooke’s life, the book provides interesting glimpses into his interactions with other well-known 17th-century scientists and gives insights into the history and nature of science. The author suggests that Hooke’s diverse interests sometimes caused him to interrupt the careful study of one phenomenon to focus on another. These shifting foci prevented him from following up on some of his ideas and from collaborating with some of his contemporaries. The author’s descriptions of Hooke’s concepts are not always clear or valid, but that is

not a fatal flaw. The book includes a chronology of Hooke's life and times, citation notes, references, the address of one Web site where readers can gather relevant information, and a brief glossary. —*Vincent N. Lunetta, Pennsylvania State University, University Park, PA*

510 MATHEMATICS

Schnitzlein, Danny. *The Monster Who Did My Math.* (Illus. by Bill Mayer.) Atlanta: Peachtree, 2007. 32pp. \$16.95. 2006103228. ISBN 978-1-56145-420-4. C.I.P.

EI ★



The plot of this book is somewhat similar to that of the much larger and more advanced book *The Number Devil* (New York: Henry Holt, 1998), by Hans Magnus Enzensberger. *The Monster Who Did My Math* is presented in entertaining rhyme and describes a child who is averse to math and makes a deal with a monster to do his homework. However, even though the child gets A's on that homework, the deal does not put knowledge into his head. When his teacher summons him to the blackboard in class, he cannot answer her math question and is embarrassed in front of the class. He then grudgingly pays the monster. The reader can practice math by checking the decimal arithmetic necessary to arrive at the correct dollar amount paid to the monster. His efforts in performing

the calculations make the child realize that he must work in order to learn. Finally, he realizes that he has gained a valuable lesson from the monster, and his payment was actually worth the investment. The artwork in this book is masterful and the poetry is enjoyable. There are no page numbers, which makes it aggravating if the reader accidentally turns more than one page. I recommend *The Monster Who Did My Math*. —*Jason R. Taylor, Jason R. Taylor Writing Services, Lexington, MA*

Weiss, Ellen. *Math at the Store.* (Illus.; Scholastic News Nonfiction Readers: Math Series.) Danbury, CT: Children's Press, 2007. 24pp. \$20.00. 2007000971. ISBN 978-0-531-18528-5. Glossary; Index; C.I.P.

Math in the Backyard. 2007005864. ISBN 978-0-531-18529-2.

Math in the Kitchen. 2007005863. ISBN 978-0-531-18531-5.

Math in the Neighborhood. 2007005694. ISBN 978-0-531-18532-2.

Math on the Playground. 2007000972. ISBN 978-0-531-18533-9.

K, EP ★

These books have a similar outline: Each starts with a "Word Hunt," an alphabetical list of seven words that occur in boldface type throughout the book. A guide to the pronunciation of these words appears under colored photograph definitions. Next is a multipart discussion of the topic of the book, including information and questions on the left page and a picture (a good-quality colored photograph) on the right facing page. All the books conclude with definition of the words in the "Word Hunt" list and answers to the questions. Each book has an index, the name of another book that covers the same topic, the address of a Website, and a couple of sentences about the author. There seem to be an equal number of boys and girls of various ethnic groups represented nonstereotypically in

the photographs. I recommend these books for kindergarten or first- or second-grade students in urban, suburban, or rural settings.

Math in the Backyard shows children (boys and girls) and a man putting a tent together. After presenting a diagram of how to put the tent together for an overnight stay, the narrative discusses sunset and sunrise. Next, another student is shown planting two containers of seed packets with five seeds per packet. The concluding photograph and discussion are of the worms in a garden.

Math at the Store starts with pictures of the fruit section of a supermarket. The student is asked to read the prices on the signs that are shown and then answer questions about buying some oranges at two different prices. The student gets to look at stack of cans and determine the number of cans that should be in the next row of the stack. The difference between a quart of milk and a gallon of milk is demonstrated, and finally, the student is asked to decide whether he or she is able to buy a box of juice with the money that is available. The money is discussed and shown in a colored photograph together with the juice box and a sign displaying its price.

Math in the Kitchen involves following a recipe for a cake, which recipe needs to be doubled. A woman shows a girl how to bake the cake when the $\frac{1}{4}$ cup measure needs to be used because the $\frac{1}{2}$ cup measure is missing. The conclusion is an estimate of the number of chocolate chips for the frosting and how to cut the cake to get 12 pieces.

Math in the Neighborhood has photographs of numerical street signs, a builder with blueprints, and a crossing guard with an eight-sided stop sign demonstrating angles. Map-reading questions are followed by an addition problem about the total number of dogs a man has walked if the man is walking three dogs when he has already walked three dogs that are at home now. The book concludes by having the students read a bus timetable and determine how long they need to wait for the

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mother who is coming on the bus.

Math on the Playground shows pictures of various shapes found on a playground. A jump-rope counting problem is followed by a picture of a seesaw showing the effect of the weights of two students in both kilograms and pounds. Students are shown measuring the dimensions of a playground by walking off distances in steps, and a final question about the playground hours is posed in the context of a photograph of a playground. —Joan Priscilla Kilbourn, Public Services Laboratories, Portland, OR

520 ASTRONOMY

Farrell, John. *Stargazer's Alphabet: Night-Sky Wonders from A to Z.* (Illus.) Honesdale, PA: Boyds Mills Press, 2007. 32pp. \$16.95. 2006020029. ISBN 978-1-59078-466-2. Glossary; C.I.P.
K-EI ★★

This little book is a charming, beautifully illustrated, and well-written quick introduction to some of the many denizens of the night sky, most visible with the naked eye, binoculars, or a small telescope. Arranged alphabetically, objects are described in pages with a short poetic phrase ("I is for Io, an astronomer's delight."), a photo or drawing, a pronunciation key ("Io, EYE-oh or EE-oh"), and a longer, astronomically correct description or explanation. The poetic material extends over two facing pages ("J is for mighty Jupiter, the ruler of the night." follows the entry for Io).

The drawings and photos of the constellations are particularly well done; the photos show clearly all the stars in the drawings. I recommend this book for libraries and for homes with young children. —Katherine Haramundanis, Compaq Computer Corporation, Nashua, NH

Nicolson, Cynthia Pratt and Paulette Bourgeois. *The Jumbo Book of Space.* (Illus. by Bill Slavin.) Tonawanda, NY: Kids Can Press, 2007. 208pp. \$17.95. C2006-902-600-

9. ISBN 978-1-55453-020-5. Glossary; Index; C.I.P.
EI, EA ★

The Jumbo Book of Space is a book written presumably for third-to-sixth graders (There is no preface or introduction.) It asks and answers a great many questions about numerous subjects, including the Earth, the Moon, the Sun, the rest of the solar system, stars, and galaxies. It also formulates queries about rockets and space travel. To draw in young readers, myths and stories begin most chapters, and most of the 18 chapters include at least one activity that youngsters can try. Some of the activities include a challenge question, answered at the end of the book, where a glossary is found. The book's ample illustrations and drawings add interest to, and enrich, the text. With so many questions and answers, subjects are well covered. However, one of the problems with books for young readers which attempt to cover complex subjects is that oversimplifications and errors creep in. This work is no exception. A little more careful editing would have helped; however, the book's price makes it a worthwhile investment for a young person interested in space. —Warren Fish, Paul Revere Middle School, Los Angeles, CA

550 EARTH SCIENCES

Rodgers, Alan, and Angella Streluk. *Cloud Cover.* (Illus.; from the Measuring the Weather Series.) Westport, CT: Heinemann, 2007. 32pp. \$28.21. ISBN 978-1-4329-0071-7. Glossary; Index; C.I.P.

Forecasting the Weather. ISBN 978-1-4329-0072-4.

Precipitation. ISBN 978-1-4034-7912-9.

Temperature. ISBN 978-1-4329-0074-8.

Wind and Air Pressure. ISBN 978-1-4329-0075-5.

EI-JH, T, GA ★

This series of five books that relate to weather is well written and includes some excellent hands-on, "minds-on" activities. *Forecasting the Weather* is a good general coverage of weather. The other four books cover the topics stated in their titles: temperature, wind and air pressure, cloud cover, and precipitation. All of the books include excellent activities which help students build instruments that can be used to measure different components of weather. Teachers at all levels will be able to use the activities. The numerous well-designed illustrations or photographs are a strong component of the books. The use of graphs to illustrate the information presented in the text is well taken. All of the books include glossaries that, although simplified, are well selected and definitely useful to the reader. In two of the books, *Temperature* and *Cloud Cover*, the greenhouse effect is briefly discussed. The statements presented do not mention the possibility that variations in temperature may be due to the Sun or to variations in solar radiation. This topic should have been presented as an alternative to the burning of fossil fuels as the cause of the variations in temperatures, especially since such changes have been occurring throughout the geologic history of the Earth. Slanting science this way is not acceptable. It is too bad that these books, which otherwise are outstanding, make such a serious error.—Paul K. Grogger, University of Colorado, Colorado Springs, CO

Seuling, Barbara. *Earth Is Like a Giant Magnet and Other Freaky Facts about Planets, Oceans, and Volcanoes.* (Illus. by Matthew Skeens.) Minneapolis: Picture Window Books, 2007. 48pp. \$16.95. 2007004029. ISBN 978-1-4048-3752-2. Glossary; Index; C.I.P.

EI, EA Ac

This children's book is just the right size for small hands. Full of facts written upon brightly colored rectangles, the book treats young readers to interesting information about volcanoes, glaciers, oceans, rivers, planets, and plate tectonics. The facts presented in each of the book's three chapters are loosely

related to one another, are wide ranging, and are interesting to both youth and adult readers. Although some facts are more well known than others, many actually could be springboards for children to want to know about the "why" behind the fact. For example, one fact begins, "The amount of salt in seawater varies...." (p. 11). This fact could lead students to wonder about and investigate why the Atlantic Ocean is saltier than the Pacific Ocean. A short glossary explains the more difficult words presented. This book is best used for casual browsing and general awareness, as the information is intended to inspire an interest in earth science rather than to fully inform the reader about the various topics treated.—*Pamela Borne Blanchard, Louisiana State University, Baton Rouge, LA*

Simon, Seymour. *Hurricanes*. (Illus.) NY: HarperCollins, 2007. 32pp. \$16.99. 2002151603. ISBN 0-06-117072-0. C.I.P.

EI ★

Two years after Katrina hit the Gulf Coast, TV and radio programs are still discussing the devastating aftermath, so it makes sense that Seymour Simon has written a new, updated edition of his 2003 book on the formation and effects of hurricanes. In a simple and precise manner, Simon describes how and why hurricanes form, the effects of wind and rain, and the damage caused by the storm surge. There is also information on the Saffir-Simpson hurricane scale, how scientists predict and track hurricanes, storm warnings, and safety measures that can be taken during a hurricane. As with other entries in this author's series of books on natural disasters, the format of *Hurricanes* includes color photographs chosen to complement text on the adjoining page. The photos include computer-enhanced radar images and shots of storm damage from recent (Katrina in 2005) and historical (Galveston in 1900) times, including one storm from each hurricane level.—*Robert Swanson, Franklin College, Barbourville, KY*

Strauss, Rochelle. *One Well: The Story of Water on Earth*. (Illus. by Rosemary Woods.) Tonawanda, NY: Kids Can Press, 2007. 32pp. \$17.95. C2006-903701-9. ISBN 978-1-55337-954-6. Index; C.I.P.

EI, EA ★★

One Well: The Story of Water on Earth, written by Rochelle Strauss and illustrated by Rosemary Woods, begins by explaining how the entire world shares one water supply. The amount of fresh water available to humans is not evenly distributed. Living things on Earth are mostly water themselves and cannot survive without it. Many products humans use take copious amounts of water to manufacture, making water an important resource. The book also covers water pollution and ends with conservation issues. The last section has a note to parents, guardians, and teachers that includes information on how to use the book, additional information about water and helping children become more aware of water issues, and ways an individual can conserve water. Bright, colorful illustrations complement the text.—*Pamela J. Galus, Luthorp Science, Spanish and Technology Magnet Center, Omaha, NE*

560 PALEONTOLOGY

Henry, Michel. *Raptor: The Life of Young Deinonychus*. (Illus. by Rich Penny.) NY: Abrams, 2007. 32pp. \$15.95. 2004012588. ISBN 978-0-8109-5775-6. Glossary; C.I.P.

K-EI ★★

Raptor: The Life of a Young Deinonychus is a beautifully illustrated book that brings a dinosaur and his environment to life. Based on informed speculation (An "Artist's Note" at the end of the book explains what is known and what is inferred about the dinosaurs and their behavior, as described in the book), this book follows the life experiences of several raptors that are part a pack that lived in the western part of North America 100 million years ago.

Covered in brightly colored feathers, these raptors are not your grandfather's dinosaurs. Whether resting, feeding, fighting for dominance, mating, nesting, raising their young, scavenging, competing with other dinosaurs for food, or fleeing danger, these dinosaurs are alive!

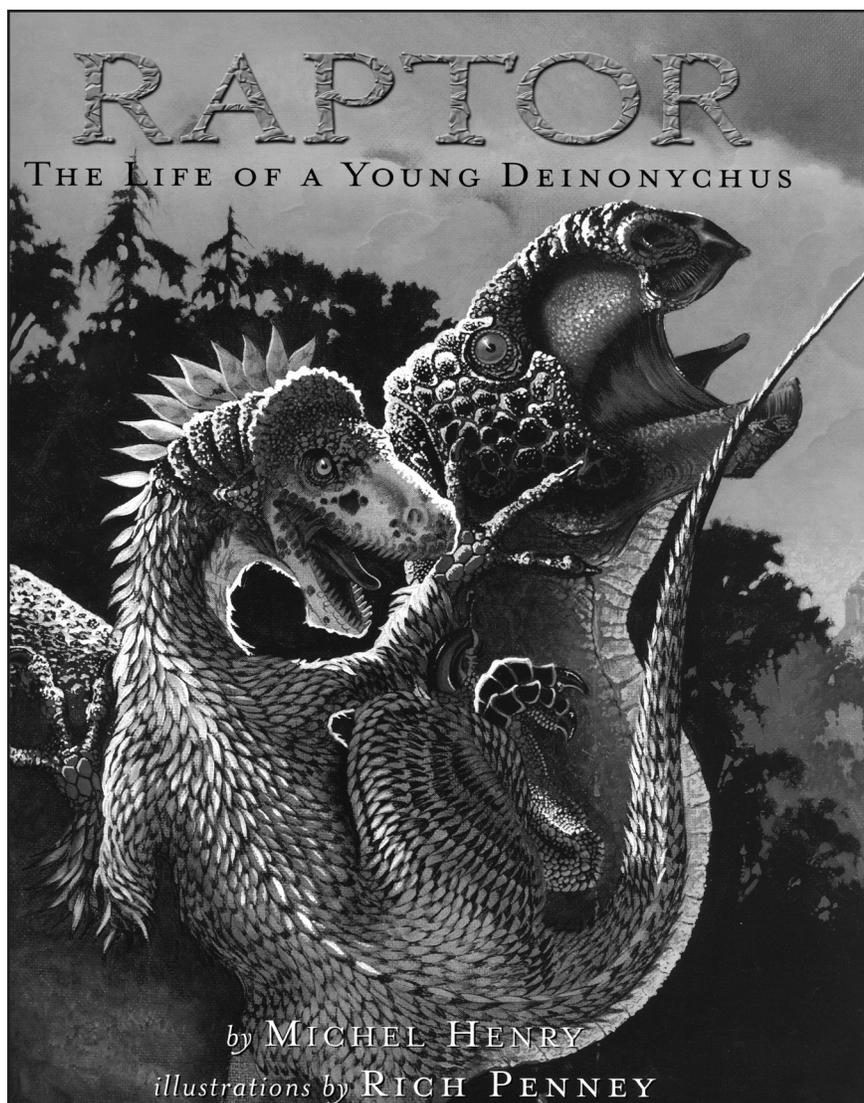
Following the story of the raptor's life is a section titled "Additional Information," which has a map showing the lay of the land in the late Cretaceous period; a glossary that defines a few of the more difficult words in the brief text and that lists and describes the dinosaur "cast of characters"; a selected bibliography; and the "Artist's Note."

This is one of the best reconstructions of life in the age of dinosaurs that I have read. The detailed, dynamic illustrations not only put flesh on the bones of the dinosaurs, but animate the flesh so that you are immersed in the lives of these long-extinct animals. For young readers or young listeners, the book is almost like a time machine, taking them back to a vividly imagined prehistoric world.—*Charles Watt, Omaha Public Schools Career Center, Omaha, NE*

Myers, Tim. *If You Give a T-Rex a Bone*. (Illus. by Anisa Claire Hovemann.) Nevada City, CA: Dawn, 2007. 32pp. \$8.95. 2007008332. ISBN 978-1-58469-098-6. C.I.P.

K-EI ★★

This is a creative introduction to dinosaurs for young children (suggested ages 4 to 10 years old). The simple story consists of a young boy who attempts to give a Tyrannosaurus rex a bone, but the T. rex would rather have fresh flesh, like the boy himself! So the boy runs to escape, only to encounter a multitude of other reptiles (mostly dinosaurs) among the landscape. The book is illustrated throughout with bright, and quite beautiful, watercolors. The one thing that is troublesome in reading the text is that many of the animals the unnamed boy encounters were not contemporaries of one another. However, this issue is addressed in



the author's "appendix," titled "Tim Talks Dinos," at the end of the book. Each animal mentioned in the main text is given a short paragraph which clearly explains that many of the animals in the book died out millions of years apart, that some of the animals are not technically dinosaurs, and that humans never actually overlapped with dinosaurs. In addition, other recommended children's books on dinosaurs are listed, and the addresses of some child-friendly dinosaur Web sites are given. All in all, this is a fine first introduction to prehistoric reptiles for the very young. —Robert M. Schoch, Boston University, Boston, MA

Sheldon, David. *Barnum Brown, Dinosaur Hunter.* (Illus.) NY: Walker & Company, 2007. 32pp. \$16.95. 200600471. ISBN 0-8027-9602-8. C.I.P.

K-EA, GA ★★

Barnum Brown, Dinosaur Hunter, by David Sheldon, is a beautifully written and illustrated book. The exploits of Edward Cope and Othniel Marsh, early fossil hunters, are usually just footnotes in science textbooks. However, Sheldon uses their discoveries as inspiration for the young boy Barnum Brown to become a dinosaur hunter. The story stresses the difficulty of finding dinosaur bones, while emphasizing the passion and luck Barnum had in

discovering and collecting complete dinosaur skeletons for the American Museum of Natural History. Barnum Brown worked for the museum for 66 years, eventually becoming head curator of paleontology. Brown's greatest find was the bones of the Tyrannosaurus Rex, the "Tyrant Lizard King." Every page of this oversized book is filled with colorful, vivid, visual images. The book presents information on museums that contain dinosaur fossils found by Barnum and lists additional books for young readers on the topic. This volume captures the wonder and awe of the times when people first began to collect, investigate, and display these strange creatures of the past. It is an excellent read-alone book or one to share while reading aloud. *Barnum Brown, Dinosaur Hunter* is a great addition for elementary schools and public libraries. Young readers, too, will want this volume for their personal collections of dinosaur books. —Teresa F. Bettac, retired middle school teacher, Potomac Falls, VA

570 LIFE SCIENCES

Fleisher, Paul. *Forest Food Webs.* (Illus.; from the Early Bird Food Webs Series.) Minneapolis: Lerner, 2007. 48pp. \$26.60. 2007001373. ISBN 978-0-8225-6729-5. Glossary; Index; C.I.P.

EP, EI ★

For adults who are looking for a basic resource about food webs, *Forest Food Webs*, by Paul Fleisher, is the book to get. It can help elementary school-aged children learn how plants and animals rely on each other to their mutual benefit. The author provides a list of important vocabulary terms up front for the reader to look for in the pages that follow. The well-organized book includes diagrams of photosynthesis and a typical deciduous forest food web, a table of contents, an index, and a glossary.

The information about forest food webs is factual and creates

a pleasing layout for children to learn about this biological concept. Beautifully colorful photographs of forest plants and animals link the written information to the real world and encourage children to visit forests. A section for adults includes helpful hints to engage the young reader. Inquiry-based questions are supplied, a listing of related books is offered, and several environmental Web sites are cited to promote further inquiry into environmental topics.

I recommend this book for elementary-school-aged children to learn about food webs. However, additional diagrams, such a diagram of as an evergreen forest food web and one of past and present changes in forested land in the United States would give a more global perspective and help children see the effects of humans on their environment. There are no pictures depicting children of color in the book. Even though the last chapter addresses human behavior and its effects, no solutions are suggested for resolving the problems. The book passes up an excellent opportunity to promote the behaviors of "reduce, reuse, recycle." In addition, it does not show how fire, flood, or clear-cutting affects the overall balance of forest food webs. A diagram depicting this change would enhance children's understanding of the interdependence among plants, animals, and humans. Still, overall, this book presents accurate information about food webs and serves as a good basic introduction to young readers. —*Dorothy A. Billows, educational consultant, Palos Heights, IL*

Johnson, Rebecca L. *Amazing DNA*. (Illus. by Jack Desrocher; from the Microquests Series.) Brookfield, CT: Millbrook Press, 2007. 48pp. \$29.27. ISBN 978-0-8225-7139-1. Glossary; Index; C.I.P.
EI, EA Ac

This book about DNA is aimed at young readers (ages 8 to 11). The author explains where DNA is found, what it is, and how it works. The difficulty in attempting to

present complicated subject matter in a simple way is that the material can become too simple to be well understood. This is the case in the first chapter, where a discussion about cells is meant to provide a context for understanding DNA. Readers will not get a sense of what cells actually are or how small they are. The chapters that describe DNA structure and replication are better done, with material presented in a clearer and more organized way and illustrated by simple, but helpful, diagrams. In Chapter 5, though, the discussion about chromosomes includes concepts in molecular biology, such as alleles, that will be difficult for young readers to grasp.

There are many micrographs (photographs taken through a microscope) used as illustrations throughout the book. A brief general explanation of micrographs appears in the beginning of the book, on the copyright page, and some of the micrographs are connected by lines to words in the text. However, there is no indication of size (magnification) on any of the micrographs, and most of the cell structures and components shown are not labeled. This missing information would make the illustrations more useful.

It is difficult to make concepts in molecular biology accessible to young readers. This book is an acceptable effort in that direction, but does not stand out among similar titles. —*Michele Fabricant, Dana-Farber Cancer Institute, Boston, MA*

Peluso, Beth A. *The Charcoal Forest: How Fire Helps Animals and Plants*. (Illus.) Missoula, MT: Mountain Press, 2007. 56pp. \$12.00. 2007003358. ISBN 978-087842532-7. Glossary; Index; C.I.P.
EP-YA, GA ★★

I read *The Charcoal Forest* against the backdrop of the Castle Rock fire, a 45,000-acre blaze that raged through the mountains surrounding our town. In two weeks of back burns, smoke plumes, the thumping of helicopter rotors, and the lazy droning of P3 Orions, I witnessed the immediate unpredictability of a

large forest fire and read about fire's near- and long-term importance to ecosystems of the West.

The Charcoal Forest is a fabulous book that does just what it says, namely, "explores one place, the Northern Rocky Mountains," in a succinct and engaging manner. Each featured plant, animal, or fungus gets a clear, two-page spread with several informative paragraphs accompanied by vibrant illustrations.

The writing is accessible and engaging to young readers (e.g., "Woodpeckers eat larvae like popcorn"), but with details that older readers will find fascinating and with points for further exploration (e.g., hornail wasps lay fungal spores together with their eggs, and the spores and eggs provide both a food source and an aid to burrowing for the wasps' larvae).

I teach biology, I'm almost 40, and I thoroughly enjoyed this volume, as did my six- and four-year-old daughters when I read it aloud to them. The book is a solid primer on fire across the board, presents a great introduction to some of the organisms that depend on fire, and offers a glimpse into the complex web of interactions that keep ecosystems diverse and healthy. At 56 pages and \$12, it is a great addition to any bookshelf. —*Harry Weekes, The Community School, Sun Valley, ID*

Rompella, Natalie. *Ecosystems*. (Illus.; from the Science Fair Projects Series.) Westport, CT: Heinemann, 2007. 48pp. \$30.00. 20060039543. ISBN 978-1-4034-7915-0.
EI-JH ★

Ecosystems, by Natalie Rompella, is one in a series of 10 Science Fair Project books published by Heinemann. This entry in the series describes 10 inquiry-based science fair projects related to life science and ecosystems. The book opens with a four-page summary of science fair basics and an overview of the format of each project idea.

Each investigation is guided by a brief introduction, some basic background content information, and suggestions for research sources.

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This introduction is followed by a template containing the following preliminary information: a possible question for research; a possible hypothesis; the level of difficulty of the project; the approximate cost of carrying out the project (ranges from \$4-\$10); and the materials needed.

The book continues its prescriptive format with detailed instructions entitled "Steps for Success." Students from mid-elementary through middle school would find little difficulty following the clearly written instructions and suggestions. The investigations are written such that students are guided, yet in an open-ended manner. An emphasis is placed on making good observations and recording data. Data analysis and conclusions, however, are left to a series of summary questions, most of which could be answered in a single word or brief phrase. Also lacking are new questions which may have arisen that represent the cyclical nature of inquiry investigations.

Additional features of the book include extensions of ideas and display tips for each investigation. The illustrations consist of colorful photographs and well-labeled diagrams; they augment a concise writing style and provide additional clarity for the investigations. At the end of the book, readers who are new to science fairs will benefit from support information regarding competition, general display guidelines, and potential judging criteria.

This book would likely serve as a valuable resource for students, parents or guardians, and teachers who are interested in the systematic investigation of key questions regarding life science and ecosystems. As a bonus, the book provides guidance for students who share their investigations and results in a science fair format! —*LaVerne Logan, Western Illinois University, Moline, IL*

580 BOTANICAL SCIENCES

Blaisdell, Molly. *The Grass Patch Project.* (Illus. by James Demski, Jr.; from the Read It! Reader Science Series.) Minneapolis: Picture Window Books, 2007. 32pp. \$14.95. 2007004572. ISBN 978-1-4048-2292-4. Glossary; C.I.P.

Blaisdell, Molly. *Surprising Beans.* 2007004565. ISBN 978-1-4048-2290-0.

Gunderson, Jessica. *Friends and Flowers.* 2007004563. ISBN 978-1-4048-2291-7.

Gunderson, Jessica. *The Sunflower Farmer.* 2007004569. ISBN 978-1-4048-2293-1.

EI, EA ★★

These four books are part of the Read It! Reader Science series of books and are designed to encourage the cultivation of problem-solving skills in midlevel elementary-school-age readers. All four books are written around some aspect of plant cultivation, which is integral to solving a problem in each book. For instance, in *The Grass Patch Project*, a new student in class proposes to beautify the school grounds by planting a patch of grass for an Earth Day project, and in *Friends and Flowers*, a young girl who has just moved to a new town is told that she will have a new friend by the time a tulip, which she plants, has flowered. The text surrounding these issues then focuses on aspects of cultivation of the featured plant. The scientific content of the books is good for this level of reader. Although most of each book is written as dialogue, there are sidebars describing in more detail, for example, just what compost is. Each book contains a short glossary at the end, as well as an activity related to the book. Taken together, the four books show a nice cross section of urban and rural society, with different ages, sexes, and ethnicities represented. I recommend this series highly, particularly in an elementary school setting in which environmental or

gardening activities are part of the curriculum. —*Connie S. Bozarth, Oregon State University, Corvallis, OR*

Whitehouse, Patricia. *Plants.* (Illus.; from the Science Fair Projects Series.) Westport, CT: Heinemann, 2006039547. ISBN 978-1-4034-7918-1.

EI, EA ★★

This is one of the better "how-to-do-a-science-fair-project" books on the market. Although many books present merely a cookbook approach to designing a project, in *Plants* Patricia Whitehouse guides students with initial concrete suggestions and ideas for projects, but continues to challenge students to extend their investigations—to give the students' projects, as she describes it, "Extra Punch."

Whitehouse begins with an introduction to the nature of scientific research and includes a discussion of variables and controls. She notes the importance of recording steps of the experiment in a science journal. Each chapter lists possible questions, necessary materials, approximate costs of materials, and levels of difficulty. These helpful and accurate notes will provide guidance to both students and their adult mentors. Titles of books for reference and the addresses of Web sites are included for additional research. A glossary rounds out the volume.

The book is appropriate for upper elementary school students, and the content is presented in a colorful and engaging format. The suggested experiments include the tried and true, such as the effect of gravity on seed growth, but also some novel experiments to try, such as an experiment to test the effects of microwave radiation on the growth of plants. All of the experiments are doable, and Whitehouse carefully indicates where adult supervision is necessary. She also offers good tips on preparing entry posters and on getting ready for interviews during the judging of projects. —*Kathleen Conn, West Chester Area School District, West Chester, PA*

590 ZOOLOGICAL SCIENCES

Collard, Sneed B., III. *Pocket Babies and Other Amazing Marsupials*. (Illus.) Plain City, OH: Darby Creek Publishers, 2007. 72pp. \$18.95. ISBN 978-1-58196-0460-4. Glossary; Index.
EI, EA ★★

This exceptionally well done introduction for children in middle elementary school grades to the fascinating and popular group of animals known as the marsupials is by an author who certainly is a highly qualified, talented author of children's books. The text is divided into 11 logically sequenced chapters, starting with what marsupials are and how they evolved and ending with the possibility of their extinction and their status as an endangered species due to a variety of environmental and human contact issues. In between, author Sneed Collard presents a wealth of age-appropriate information on the various types of marsupials in both the New World and Australia, such as opossums, kangaroos, koalas, wombats, Tasmanian devils, quolls, and more. With an extensive two-page list of references, further readings, and respected Web-site addresses; a glossary that is clear and a thorough index; and dozens of appropriately placed photographs and illustrations, this book could not have been made any better. Collard has written dozens of books for children, many of which have earned him honors and awards, including the prestigious *Washington Post* Children's Book Guild Nonfiction Award, the ASPCA Henry Bergh Award, and the AAAS/Subaru SB&F prize. I recommend *Pocket Babies and Other Amazing Marsupials* as a must-purchase for both school and public libraries. —Edell Marie Schaefer, Brookfield Public Library, Brookfield, WI

Daigle, Evelyne. *The World of Penguins*. (Illus. by Daniel Grenier.) Toronto: Tundra Books, 2007. 48pp. \$21.99. C2006-902056-6. ISBN 978-

0-88776-799-9. C.I.P.
EP-C, GA ★★

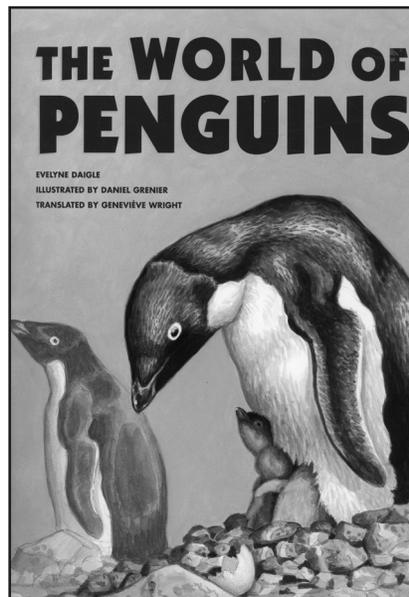
This attractive and extremely informative hardbound book of 47 pages was written by Evelyne Daigle, illustrated by Daniel Grenier, and translated into English by Genevieve Wright.

Originally published in French in 2006 in Montreal and by Tundra Books in Toronto, the book also was published in the United States by Tundra Books in Plattsburg, New York, in 2007 and was printed in China.

Having been to the Antarctic two times to collect mid-water animals for the Smithsonian Institution National Museum, I was entranced by the friendly nature of the Adelie penguins and saw other species from varying distances. I also went through the dreadful Drake Passage, which is well described in the book.

It is exciting to learn about the modern methods being used to protect the Antarctic and also to learn about a bird similar, but unrelated, to penguins that was exterminated by humans in the North Atlantic. The book names and illustrates the 17 species of currently living penguins and shows in what geographic regions they live.

All in all, this is a great informative book for adults (be they parents with children or not), bird



lovers of all ages, natural-history lovers, and biology students. The book should be in public libraries and museums of natural history. —Beatrice L. Burch, Bernice P. Bishop Museum, Honolulu, HI

Davies, Nicola. *White Owl, Barn Owl*. (Illus. by Michael Foreman.) Cambridge, MA: Candlewick Press, 2007. 30pp. \$16.99. ISBN 978-0-7363-3364-6. Index.
K-EI ★★

Take a walk in the woods, to a certain tree, and Grandpa will show you where he has seen barn owls at night. Make a nest box to put in the tree, and maybe, just maybe, a barn owl will choose to nest there. Thus begins Nicola Davies's enchanted story of a girl and her grandfather and their observations of a family of barn owls. Lavishly illustrated by Michael Foreman, this book gives some elementary information about barn owls: their nesting preferences, the creation of "pellets," the size of the family, etc. But unlike other books about barn owls, such as *The Barn Owls*, by Tony Johnston, or *Animal Lives: the Barn Owl*, by Sally Tagholm, this one also gives some helpful tips to attract and nurture the endangered species. In casual lettering on each page are barn owl facts. A "Nest Box Note" and a short index at the end of the book provide more information and access to these facts. The story this book presents will appeal to the youngest readers; the owl facts it provides will make it a valuable research tool for up to third or fourth graders. The book lends itself well to other subject areas and activities, including art, mathematics (making nest boxes), and language arts (including family relationships). I recommend Nicola Davies's *White Owl, Barn Owl* highly. —Ellen McCabe, Memorial Library, SUNY-Cortland, Cortland, NY

Fetty, Margaret. *Chimpanzees*. (Illus.; from the Smart Animals! Series.) NY: Bearport Publishing Co., Inc., 2007. 32pp. \$17.97. 2005026829. ISBN 1-59716-159-4. Glossary; Index; C.I.P.

CHILDREN'S BOOKS

Fetty, Margaret. *Parrots*. 2005
028038. ISBN 1-59716-163-2.

Ingram, Scott. *Dolphins*. 2005
26825. ISBN 1-59716-161-6.

Lunis, Natalie. *Crows*. 2005
026830. ISBN 1-59716-160-8.

Searl, Duncan. *Elephants*. 2005
026828. ISBN 1-59716-162-4.

Searl, Duncan. *Pigs*. 2005
026827. ISBN 1-59716-164-0.

EP, EI ★★

The Smart Animals! series takes young readers on a journey that is informative and heartwarming as they explore experiments and feats of bravery and compassion among six groups of animals. At the end of each title, the light bulb, a traditional symbol representing an idea, is used by the authors to pique the imagination of readers. Giving animals names such as Priscilla the pig and Alex the parrot personalizes the animals for readers as they relate to names of their pets.

In 32 pages, the authors give numerous examples depicting how animals are smart and how they survive in their natural habitat. Further, the presentation of each topic is concise and action oriented. Pictures portraying interactions between humans and animals and between animals and animals are displayed in a variety of colors, shapes, and patterns. Boldface type is used to indicate important words, and colorful maps show where the animals live. This format gives readers the opportunity to broaden their horizon and enliven their conversations about animal behavior.

The series provides many opportunities for facilitators to develop cooperative learning and interdisciplinary teaching strategies. Process and communication skills can also be enhanced. Relevant data and comparisons of features of animals are found in sections titled "Just the Facts" and "More Smart...[the name of the animals of the title]." A glossary, a bibliography,

a section titled "Learn More Online," and an index and a few facts about the author are also included. Young readers will be fascinated by this series as they discover how smart animals are. —*Jean B. Worsley, retired, biology teacher, Charlotte, NC*

Jenkins, Steve. *Living Color*. (Illus.) Boston: Houghton Mifflin, 2007. 32pp. \$17.00. 2007012751. ISBN 978-0-618-70897-0. C.I.P.

EI, EA ★★

Most of us notice a dramatically colored animal without giving any thought to the biological purpose of the color. We take pictures of a scarlet ibis, a blue Morpho butterfly, an American goldfinch, or any of the 70 animals covered in *Living Color* without realizing that these animals are using their color to survive in a world that is dangerous for them.

The book has wonderful illustrations of vividly colored animals and a paragraph on the importance of the color to each animal's survival. Not all animals use their color in the same way. In some cases, the color advertises, "If you pick a fight with me, you are likely to lose." Other animals use their color to attract a mate, while still others use their color to keep hidden in their environment.

The book has a section that covers how animals create their colors and how the colors evolved. At the end of the book, additional information is provided about each of the animals pictured.

This is a fascinating book that is easy to read, has excellent illustrations, and covers a most interesting area of animal biology. It is written for young readers, but anyone interested in zoology will enjoy looking at the illustrations and reading the explanations. The book should be in the reference section of any library frequented by young readers. —*Edward I. Saiff, Ramapo College of New Jersey, Mahwah, NJ*

Landstrom, Lee Ann, and Karen I. Schragg. *Nature's Yucky! The Desert Southwest*. (Illus. by Rachel

Rogge.) Missoula, MT: Mountain Press, 2007. 48pp. \$12.00. 2006 032479. ISBN 978-0-87842-529-7. C.I.P.

K-JH ★★

This book provides a unique approach to sparking an interest in children and adults in the significance of adaptations of animals of the southwestern desert.

What is a "yucky" fact to one is an important fact to another. The behavior described may serve to protect an animal from its predators or may aid in the survival of the individual or its young and thus in the survival of the species. All of these behaviors play a role in the maintenance of biodiversity in the environment of the desert ecosystem.

The illustrations are detailed and well done. The color plates can serve as a picture book for the young. Each of the animals is well described, and, in a separate part of the book, additional information can be found, including the scientific name of the animal, its size, its range, etc.

Other resources are listed—even a recipe and a song. —*Eleanor Wenger, Lawrence, KS*

Nicklin, Flip and Linda. *Face to Face with Dolphins*. (Illus.) Washington, DC: National Geographic Society, 2007. 32pp. \$16.95. 2006036273. ISBN 978-1-4263-0142-1. Glossary; Index; C.I.P.

K-EA ★★

Dolphins are winsome creatures. We are all attracted to their beguiling "smile" and playful behavior—especially kids, who can immediately sense the dolphins' huggable attributes and humanlike smarts. *Face to Face with Dolphins* takes advantage of this attraction to meld a bit of science with some engaging close-up photography.

Flip Nicklin, an underwater photographer with National Geographic credits, is in close touch with the dolphin research community. He and his coauthor, Linda Nicklin, a naturalist and educator, have put together a delightful reader that will

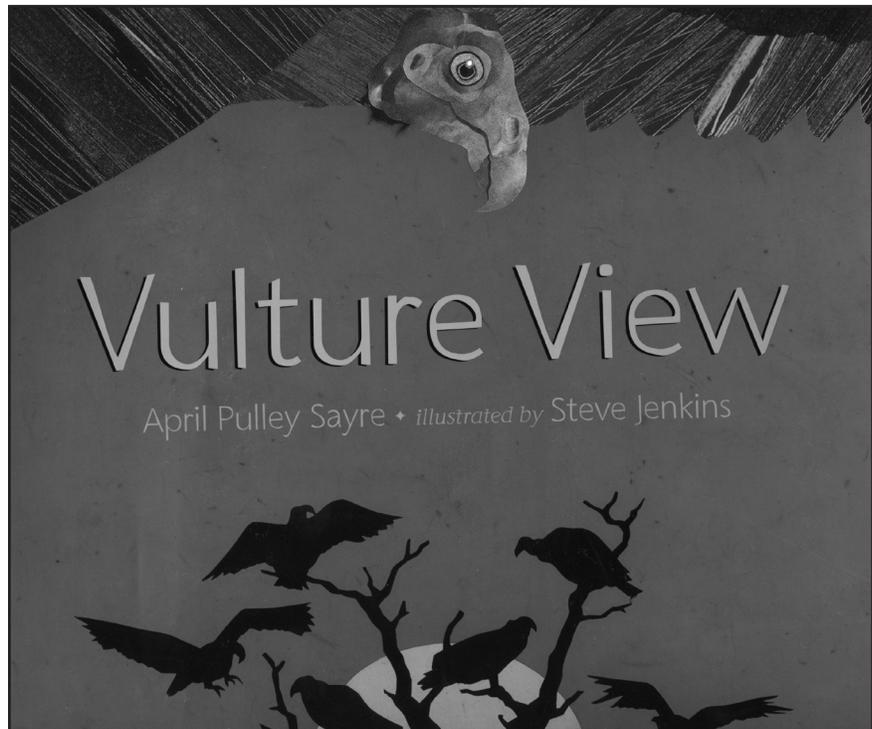
enable kids to get into the subject. A clever sidebar shows kids how to swim like a dolphin. Other ones demonstrate how to speak "dolphin" and how dolphins play. Kids will love it all.

Toward the end there is a strong attempt bring environmental issues into the picture, showing kids the problems and how they can help. They are aided with a brief glossary and a section on how to find out more. The authors have done a good job using unique close-up photos to try to stimulate a sense of scientific exploration in the young. —*Johnes K. Moore, emeritus, Salem State College, Salem, MA*

Patukau, Karen. *Creatures Great and Small.* (Illus.) Toronto: Tundra Books, 2007. 32pp. \$17.95. C2005-907309-8. ISBN 0-88776-754-0. Glossary; Index; C.I.P.

EP, EI ★

What a delightful book! When I removed it from the mailing envelope, I was immediately impressed by the colorful illustration of an African elephant on the cover. The book contains a wonderful display and variety of animals. The scientific class of each animal (e.g., mammal, reptile, amphibian) is identified. On the left-hand page is an illustration of a larger animal in that class; on the right-hand page is a smaller animal of that class. For example, one right-hand page illustrates an elephant, while the corresponding left-hand page illustrates a bumblebee bat. A few interesting factoids about the animal are included on each page. At the beginning of the book is a world map showing where the different animals live. The illustrations are colorful and beautifully done. Sometimes, it is difficult to envision the actual differences in size of the various organisms from the illustrations. However, the author attempts to solve this problem by giving measurements of the actual sizes of the animals in the last few pages of the book. The measurements are presented in metric and English units. The sizes are identified as ranging from "really big" to "really small," but the presentation of this



information is confusing. Parental guidance seems needed for an understanding of the comparisons that use grids. A glossary is given at the end of the book. The most striking and appealing aspects of this book are the dramatic illustrations of the animals and the concept of scale. Readers can enjoy seeing and learning something about these animals and can gain a sense of relative sizes and measurements. This book is a very attractive and valuable addition to any child's library. —*Marvin Druger, Syracuse University, Syracuse, NY*

Sayre, April Pulley. *Vulture View.* (Illus. by Steve Jenkins.) NY: Henry Holt, 2007. 32pp. \$16.95. 2006030766. ISBN 978-0-8050-7557-1. C.I.P.

K, EP ★★

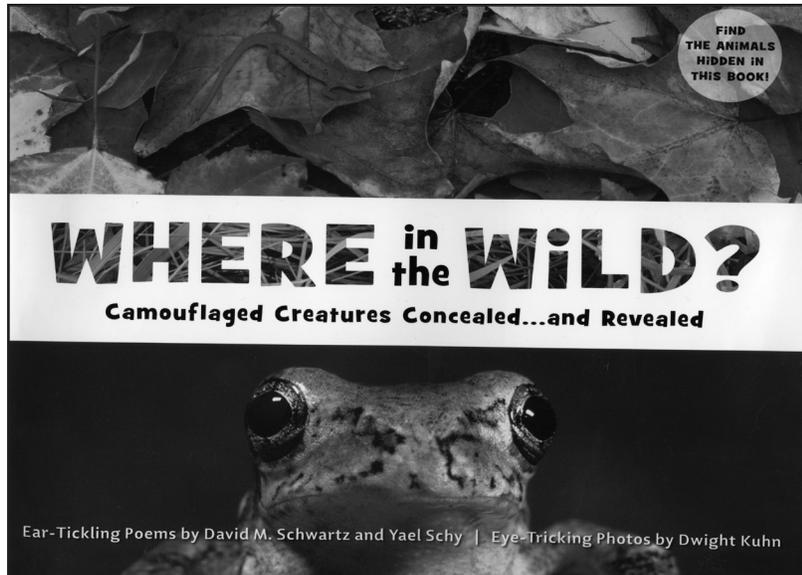
Vulture View, with its huge, brightly colored illustrations and simple rhyming text, is a delightful book for young children. In it, the reader follows vultures as they catch a ride on warming air, tilt, soar, and scan. The vultures look for food, not to the snake, not to the fox, not to the bear, but, yes, to foods that absolutely reek! This book is likely

to interest and entertain young children with stimulating visual and auditory elements. At the end of book is a section called "Get to Know Vultures," which contains an introduction to vulture biology. The audience for this section isn't apparent, however, since it is for an older age group and yet appears to be written for youths, rather than adult readers. A section titled "Heads-Up, Young Scientists!," gives information on the Turkey Vulture Society's Web site and the dates and locations for various vulture festivals. I recommend this book for children in kindergarten and preschool. —*Judy Diamond, University of Nebraska State Museum, Lincoln, NE*

Schwartz, David M., and Yael Schy. *Where in the Wild? Camouflaged Creatures Concealed...and Revealed.* (Illus. by Dwight Kuhn.) Berkeley, CA: Tricycle Press, 2007. 24pp. \$15.95. 2006101406. ISBN 978-1-58246-207-3. C.I.P.

K-EI ★

The title and subtitle of this book, replete with an ellipsis pause, had me expecting an exposé of deception in the natural world. I wasn't



disappointed. “Camouflage,” from a French word meaning “to disguise,” seems to have entered common usage from military vocabulary in the early 20th century, but even then, military applications alluded to the many animals in nature that were able to avoid detection by blending into their surroundings. The authors ask readers to look carefully at a series of 11 full-page color photographs and find in them the animals, or their eggs in one instance, camouflaged from would-be predators or prey. Ten of the photographs have poems on a facing page offering rhyming hints as to where to look and what to look for. Read the poems out loud for their full descriptive effect, but cleverly, some of the poems also have the printed lines arranged as visual hints: “Motionless” is printed in four “double-jointed” lines representing the four pairs of the motionless spider’s legs, and the lines of “Serpentine” undulate across the page. At the bottom of each picture is the notation “lift to find me.” Each folio unfolds to vividly reveal the previously camouflaged creature against a faded-out background. Each animal revealed has an accompanying page of life history information, with additional lore on its use of color and behavior in avoiding predation or in assisting in capturing prey. However, suggestions for further reading are lacking. Although the authors present

camouflage “experts,” from coyotes and deer fawns to green snakes, tree frogs, and salamanders, the masters of deception are the insects, here represented by ladybug beetles and moths, the latter often camouflaged in developmental stages and in the adult. In spite of the many nature documentaries on public and cable television and the seemingly endless proliferation of nature and animal sites on the Web, these authors and their photographer have put together interactive hard copy that should captivate today’s youngsters. The only problem with the book is that it ends abruptly. I turned the last page expecting more! Teachers and parents should go to the publisher’s Web page (www.tricyclepress.com) to download a teacher’s guide. —*Frank M. Truesdale, emeritus, Louisiana State University, Baton Rouge, LA*

Seuling, Barbara. *Cows Sweat Through Their Noses and Other Freaky Facts about Animal Habits, Characteristics, and Homes.* (Illus. by Matthew Skeens.) Minneapolis: Picture Window Books, 2007. 40pp. \$16.95. 2007004028. ISBN 978-1-4048-3749-2. Glossary; Index; C.I.P.
EP-JH ★★

This delightful little book contains a potpourri of facts about many members of the animal kingdom, large and small, from insects to

elephants. In what we might call a trivia format, the book describes a number of animals that we are vaguely familiar with and includes their physical characteristics, homes, food habits, means of locomotion, and sleeping habits. When I first received the book, I automatically assumed that it was designed for the littlest ones, perhaps of kindergarten age. It actually should be interesting to a large number of readers of varying ages. Because of its format, it probably cannot be useful as an animal reference, but the information presented, including the glossary, is still fascinating. —*Harvey R. Levine, professor emeritus, Tamarac, FL*

610 MEDICAL SCIENCES, PSYCHIATRY

Alive: *The Living, Breathing Human Body Book.* NY: DK Publishing, 2007. 12pp. \$24.99. ISBN 978-0-7566-3211-3.
EI-JH Ac

Employing a “paper engineer” together with a “pop-up illustrator,” this dynamic human body book incorporates paper pop-up simulations of the major organs of body systems. The book is cleverly designed so that, upon opening the pages, the reader is faced with three-dimensional views of the thoracic and abdominal cavities and their internal organs. The thickly layered paper, using flaps and many gatefolds, enables the book’s 12 pages to include essential data on the human nervous, skeletal, muscular, respiratory, cardiovascular, and immune systems. Colorfully labeled figures and illustrations decorate each page. Data on the basic anatomic components are noted as short factoids within the sections. The user is treated to the sound of the heartbeat when the cardiac system is exposed and is tempted to finger the 3-D art and to lift the flaps to search for hidden messages. The novelty of the presentation will appeal to both young and old, but to those without a basic understanding of the human body’s actions and

functions, the book becomes more of a toy than a text. Because the book focuses on gimmickry rather than narrative, youthful learners will find it somewhat hard to pick up the anatomic details. Suggested for ages eight and above, the written content is too high level; however, the visual "touchy-feely" components will appeal to that age group. There needs to be a better match between the intended audience and the written content. —*Rita Hoots, Sacramento City College, Davis, CA*

Seuling, Barbara. *Your Skin Weighs More than Your Brain: and Other Freaky Facts about Your Skin, Skeleton, and Other Body Parts.* (Illus. by Matthew Skeens.) Minneapolis: Picture Window Books, 2007. 48pp. \$16.95. 2007004030. ISBN 978-1-4048-3751-5. Glossary; Index; C.I.P.
EI, EA ★

This quick read is a light, fun, and at times fascinating collection of various facts about the human body. By no means comprehensive or didactic, the book makes the human body—a sometimes boring topic to a fourth grader—a lot more interesting than a textbook. Consider, for example, the statement, "The acid in your stomach is so strong, it can dissolve razor blades." Now, isn't that more interesting than learning about the normal pH ranges for gastric juice? The cited statement serves as a jumping-off point, something to pique interest in the science of the human body—and once that happens, the book mentions resources from which the reader can learn more. Among these resources is a list of other books to read for more information, as well as the address of a Web site. So although the book goes only so far (getting kids interested in science, providing tons of facts to impress friends and teachers, making you a trivia-night star, etc.), the resources constitute a backup plan. Sometimes, however, the facts can be too numbers heavy. Consider, for instance, the statement, "The brain weighs about 3 pounds". Something to compare it to would have been helpful and more illustrative than a simple number.

Otherwise, the book is eye catching—a convenient and kid-friendly small size, with illustrations on every couple of pages. *Your Skin Weighs More than Your Brain* is a solid contribution to children's science literature. —*Lesley A. Wojcik, University of Maryland School of Medicine, Baltimore, MD*

Walker, Richard. *How the Incredible Human Body Works.* (Illus. by Lisa Swerling and Ralph Lazar.) NY: DK Publishing, 2007. 62pp. \$19.99. ISBN 978-0-7566-3145-1. Glossary; Index.
EI-JH ★★

This clever, informative book is filled with information about the anatomy and physiology of the human body. Even though the approach taken by the author is fun loving and entertaining, the material is accurate and detailed. It is appropriate for children eight and older who enjoy independent reading or researching a topic being studied at school. One of the best features is the design and layout of the book. Scattered throughout the text are the "brainwaves"—little illustrated people who guide the reader, as well as add clever little comments as they build their own subplot. The brainwaves make each page a wonderland of delight, with lots of nooks and crannies to explore, similar to the format in books by Richard Scarry. Many inset boxes offer historical information and more detailed facts. The book contains six double-sided foldouts, each of which focuses on one system of the body. A brief narrative introduces each system and is enhanced by detailed illustrations, captions, and side stories. Children, as well as adults, will be enchanted as they take a fantastic journey through the body. Readers can discover how the brain detects when you are hungry, how we fight against invasions of toxic bacteria, and how the nose cleans the air we breathe. Readers can also learn more specific information about topics such as cell division, key liver functions, or the steps in wound healing. Because one can pick and choose how many of the extra inset illustrations and information asides to investigate, the book will meet the

needs of readers in a wide age range. —*Marilyn A. Marks, Crossroads and Heschel West Day Schools, Los Angeles, CA*

620 ENGINEERING

de Goursca, Olivier. *Space: Exploring the Moon, the Planets, and Beyond.* (Illus. by Pascal Laye.) NY: Abrams, 2007. 75pp. \$18.95. ISBN 0-8109-5719-1.
EI-JH Q

Space is big and beautiful, and so is this book, thanks to the wonderful photography and artwork it contains. For the price, the book is a great value, considering the volume's visual appeal alone, which is suitable for readers at the upper elementary school level.

However, contained in only 75 pages is a disturbingly high number of errors and inaccuracies that do not serve young students of astronomy well. For instance, on page 75, it is stated that the fastest spacecraft today can travel at "67 million mph," three orders of magnitude higher than the actual value. The background research that has gone into the book seems somewhat less than complete, as, on page 61, the author states that Uranus has 5 moons when, in fact, the total is 27; on page 71, it is implied that NASA has settled on an "official plan" for exploring Mars (it hasn't); on page 37, the spacewalk techniques normally used on the International Space Station are totally ignored; on page 41, the author states that in 1962 President Kennedy promised that "two Americans would go to the moon..." (no such quota was expressed, and the actual year was 1961); on page 67, the plan detailed for our return to lunar exploration is in direct contrast to the approved Ares/Orion spacecraft currently being developed by NASA; and the mythical suggestion that Jupiter is a "failed star" is perpetuated on page 57, despite the fact that astronomers long ago dismissed this concept. All this may seem harshly critical, but considering that the publication date of this book is 2006, such errors should not still be in print.

CHILDREN'S BOOKS

In addition, there is a simple typographical error on page 47: The Russian spacecraft Salyut is misspelled on page 23 as "Saliout" (a possible French-to-English translation error left over from the original publishing). On page 13, it is stated that carbon and silicon are "minerals" when, in fact, they are elements. Finally, the author's resistance to use actual dates of major historical events is perplexing.

Young readers need accurate information to aid in their education. Authors need to assist in this endeavor, as does the editorial staff at the publishers. Both have missed the mark here. If the quality of the text matched the quality of the illustrations, this would be a wonderful book. With the errors present, it serves only as an attractive, brief introduction to space, with pretty pictures, for a reasonable price. —*Gary W. Finiol, Colorado Department of Public Health and Environment, Denver, CO*

Hilliard, Richard. *Godspeed, John Glenn.* (Illus. by the author.) Honesdale, PA: Boyds Mills Press, 2007. 32pp. \$16.95. 200600517. ISBN 978-1-59078-384-9. C.I.P.
EI, EA Ac

This slim, sturdily bound volume for young readers is delightfully illustrated with the author's double-page color acrylic paintings depicting events from the life of pioneer Project Mercury astronaut John Glenn. The author traces Glenn's life from his boyhood in Ohio, dreaming of flying, through his service as a Marine Corps pilot during World War II and the Korean War, to the early days of the Space Age, concluding with his flight aboard the space shuttle *Discovery* in 1998, when he became the oldest man to fly in space. Several factual errors, however, are found in the text. First, the author states that Glenn set the transcontinental speed record in 1957, flying supersonically from New York to Los Angeles; actually, Glenn flew from Los Angeles to New York. Also, we read that, following his orbital mission in 1962, Glenn's Mercury capsule, *Friendship 7*, splashed down in

the Pacific Ocean; in reality, it was the Atlantic Ocean. One also finds a fault common to much juvenile literature devoted to aerospace: The author confuses the roles of scientist and engineer. Scientists, instead of engineers and technicians, are presented as working to solve the technical problems associated with the balky Atlas rockets used to launch the orbital missions of Project Mercury. To be fair, the engineers and technicians are presented later in their proper roles during Glenn's orbital flight. Those caveats aside, aspiring astronauts should enjoy this book. —*Thomas Pinkney Davis, Spade I.S.D., Spade, TX*

Hilliard, Richard. *Ham the Astrochimp.* (Illus. by the author.) Honesdale, PA: Boyds Mills Press, 2007. 32pp. \$16.95. 2006037940. ISBN 978-1-59078-459-4. C.I.P.
EP ★

Who knew that Ham, the spacefaring chimpanzee, was named for the place where he was trained (Holloman Air Medical Center)? Who knew the name of his trainer (Edward C. Dittmer, Jr.)? This delightful book, suitable for young readers, offers a summary of Ham's adventure into space on January 31, 1961, and his recovery from the ocean afterwards. Ham was weightless for almost seven minutes of his suborbital flight. The text of the book is augmented by excellent illustrations by the author and by more detailed sidebars with useful supplemental material. This book about a real animal's life could be bedtime reading to a child. —*Paul R. Cooley, The Aerospace Corporation, El Segundo, CA*

Thales, Sharon. *Inclined Planes to the Rescue.* (Illus.; from the Simple Machines to the Rescue Series.) Minneapolis: Capstone, 2007. 24pp. \$15.95. 2006021500. ISBN 978-0-7368-6752-8. Glossary; Index; C.I.P.

Levers to the Rescue. 2006021501. ISBN 978-0-7368-6747-4.

Pulleys to the Rescue. 2006024503. ISBN 978-0-7368-6748-1.

Screws to the Rescue. 2006021502. ISBN 978-0-7368-6749-8

Wedges to the Rescue. 2006021495. ISBN 978-0-7368-6750-4.

Wheels and Axles to the Rescue. 2006021504. ISBN 978-0-7368-6751-1.

K-EI ★★

This series of six books about simple machines, written by Sharon Thales, has much to offer, not only for its science content, but also in the way the material is presented to the young reader. Each book follows a format that draws the reader into the subject by showing how the simple machine of the title is used in a way the reader might see in his or her everyday life. One such example is a working tow truck and its pulley. The text recounts how the simple machine was used in ancient times, as well as explaining the variety of simple machines in use today (fixed pulleys, moveable pulleys). Finally, each book describes a complex machine, showing how machines work together to accomplish a task. Each volume contains informative facts that further explain the workings of the machine. Included is a hands-on activity using everyday materials for the reader to experiment further with how the machine works.

The presentation of the material in the series is impressive. Each of the texts is designed to be read independently by students in grades 1-3, and all newly introduced vocabulary pertaining to the machine is in boldface type followed by a definition. The book introduces readers to features such as the table of contents, glossary, and index. This series of books may be a catalyst to independent reading for students whose science interest includes topics such as machines and how things work. Those seeking to acquire nonfiction informational texts that students can read independently will want to consider these titles as well. —*Kathy Robbins, Akron Public Schools, Norton, OH*

SCIENCE ON TV

If you have any information or news about educational or professional programs that you would like to share with our readers, please contact us. Write to SB&F "Science on TV", 1200 New York Ave, NW, Washington DC 20005 (Attn: Heather Malcomson or email hmalcoms@aaas.org)

PBS FEATURED LISTINGS

e² (The Economies of Being Environmentally Conscious)

Fridays, February 1, 8, 15, 22, and 29, 5:30pm (ET/PT) 30 minutes.

E² is a series about the economies of being environmentally conscious. Shot in high definition, it covers the ongoing shift toward sustainability in design technologies, architecture and urban planning.

"Growing Energy"— In response to the oil crisis of the 1970s, Brazil created a domestic ethanol industry that is thriving on all levels, from production, to distribution at gas stations to nationwide adoption of flex-fuel cars. Looking at policies, infrastructure, manufacturing and consumer acceptance as keys to longevity, this episode examines what we can learn from Brazil's extraordinary success with ethanol.

"State of Resolve"— Could California's progressive energy policies influence the United States towards a cleaner energy future? The laws that California passed to regulate greenhouse gas emissions perpetuate the state's reputation for environmental leadership, driving it to become a global leader in clean air technologies.

"Coal & Nuclear: Problem or Solution?"— Renewables, bio-fuels, sol-ar, wind and other alternative energy sources are being explored to solve the world's global energy problem, but the ubiquity of coal and the power of nuclear make them impossible to ignore despite their many downsides. With new developments in carbon capture and sequestration and improved nuclear technologies, these highly controversial resources may be able to offer solutions to the world's increasing demand for power.

"The Druk White Lotus School—LaDakh"— Amidst religious, political and cultural strife in LaDakh, one of the most remote places on earth, is the construction of a new symbol of hope and peace: the Druk White Lotus school. Conceived to equip LaDakhi children to function in a modern world while embracing Buddhist traditions, can the school, designed by ARUP London, implement sustainable building, tap local materials and labor, and preserve the cultural identity for future generations?

"Greening the Federal Government"— Government buildings are not historically associated with sustainability or exquisite design. The U.S. General Service Administration's (GSA) Design Excellence program is changing this perception. Pritzker Prize-winning Architect Thom Mayne's San Francisco Federal Building is transforming the workplace experience through sustainable architecture, while servicing the surrounding community.

NATURE

Sundays, February 10 and 17, 8:00pm (ET/PT) 60 minutes.

"Crash: A Tale of Two Species"— This is a story of the interconnection of life, how every species is important, no matter how big or small. At the center is the humble horseshoe crab, a creature that has remained virtually unchanged for 300 million years. Its annual spring spawning produces millions of eggs that are the lifeline for a tiny bird called a red knot, which migrates 10,000 miles from South America to the Arctic each year. Scientific and medical communities have discovered that the crab also provides an indispensable testing agent for drugs and vaccines, as well as resources for human optics and burn treatment. But horseshoe crab numbers are plummeting from their new use as bait for the fishing industry, dropping by two-thirds since 1990. The precious pyramid depending on this age-old creature is about to come crashing down. Presented in high definition.

"Bears on Top of the World"— Polar bears are living on borrowed time. They are the descendents of grizzlies, long-ago evolved to live and hunt on the frozen ice of the Arctic, eating a specialized diet of seal meat. But the winters have become increasingly warmer, the ice is disappearing and raising a family becomes a much more difficult proposition when hunting time is short and food is scarce. Grizzlies, on the other hand, are masters at living off the land, making a meal from a wide variety of foods — meats, seeds, berries, insects, fruit and honey. Their world is bountiful and expanding northward, converging with what once was the icy domain of the polar bear. As the two worlds meet, are the polar bears fated to become grizzlies once again?

NOVA

Tuesdays, February 12 and 19, 8:00pm (ET/PT)

"Astrospies"— While NASA astronauts were captivating the world with the Apollo lunar landings, the U.S. was engaged in a top-secret military manned space program. Now, investigative author Jim Bamford (acclaimed author of *The Puzzle Palace*) probes the untold story of the elite corps of clandestine astronauts who were never told of the true purpose of their training program. Bamford travels to Russia to reveal the secrets of the Soviet response—the prototypes of the "Almaz" military space stations that, if deployed, might have led to a Cold War showdown in outer space.

"Ape Genius"— The great apes—which include chimps, orangutans, gorillas and bonobos—seem to have rich emotional lives similar to our own. But just how smart are these animals? A new generation of investigators is revealing the secret mental lives of great apes; our evolutionary next-of-kin are turning out to be far smarter than most experts ever imagined. But just as clever experiments are exposing the extraordinary abilities of great apes, new research is redefining the mental talents of our own species. Scientists are at last zeroing in on what separates us from our closest living relatives.

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- Being Caribou: Five Months on Foot with a Caribou Herd* by Heuer, Karsten. [EA, JH]
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- The Charcoal Forest: How Fire Helps Animals and Plants* by Peluso, Beth A. [EP-YA, GA]
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- Chimpanzees* by Fetty, Margaret.
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- Cows Sweat Through Their Noses and Other Freaky Facts about Animal Habits, Characteristics, and Homes.* by Seuling, Barbara. [EP-JH]
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- Dinosaur Eggs Discovered! Unscrambling the Clues* by Dingus, Lowell, Luis M. Chaippe, and Rodolfo Coria.
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