

children's books

Encyclopedia of Planet Earth (age 8+), **Time-Life Student Library: Planet Earth** (ages 8–12) and **The Oxford Children's Encyclopedia of Our World** (age 8+) include eye-catching photographs, computer-generated images and effective graphics (along with lists of Earth facts) on topics from atolls to weather. Usborne has also produced an Earth-sciences book for younger readers: **The Usborne First Encyclopedia of Our World** (ages 5–8).

Several of the books — such as *Nature's Fury* and *The Usborne Encyclopedia of Planet Earth* — provide lists of Internet addresses where you can find supplementary and recent information.

Despite the potential that exists today to produce truly excellent Earth-science books for children, many books, including those mentioned here, contain inaccuracies, introducing or reinforcing misconceptions either through the text or in diagrams. It is all too common to read that seasons change because of an annual variation in the distance of the Earth from the Sun; that the Earth's mantle is molten; that a tsunami is a tidal wave. Teachers have long observed that student misconceptions are difficult to dislodge and are a major impediment to learning. Careful review of book manuscripts and better communication between scientists and authors, editors and graphic artists are needed to improve accuracy. ■

Lawrence W. Braile is at Purdue University, West Lafayette, Indiana 47907-1397, USA.

Hurricanes and lightning

Cornelia Lüdecke

Although weather is an everyday experience, how it happens and why is a rather complicated business. Children's curiosity about it, and their endless questions, can get on parents' nerves. Mercifully, much new material is available with answers to their questions.

Two books for 5–8-year-olds — **Unser Wetter** and **The Weatherbirds** — include instructions for simple experiments demonstrating the most important aspects. For German speakers, **Unser Wetter** is very informative. **Weatherbirds**, on the other hand, tells a wonderful story of a parrot's journey from Canada back home to Costa Rica. Imaginative pictures and scientific sketches illustrate the book. In addition to the story, a basic questions-and-answers format explains the vocabulary of weather and the various phenomena encountered during the trip.

For German 10–12-year-olds, **Wetter** has been translated from the English (*Weather*; Dorling Kindersley). Its descrip-

Horribly fun and dreadfully popular!

Horrible Science Series

Horrible Geography Series

Scholastic: 1998/2000. avg 160 pp. £3.99, \$4.50

Sandra Knapp

All scientists know that science is great fun, as well as being intellectually rewarding. That sense of fun is caught brilliantly in the Horrible Science and Horrible Geography series. These series do much to fill the gap for older readers (12+), and appeal to younger children too.

The combination of jokes (in *Nasty Nature* the other fish see one with tartan skin and say "What a trendy plaice!"), with lots of interestingly presented information (Nelson's diary of the *Bounty* mutiny in *Vicious Veg* is a classic) not only entertains, but educates. Children will relish the constant reminders that they can know more than their teachers.

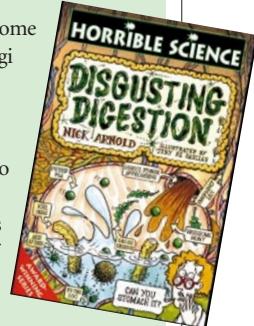
Multiple-choice questions scattered through the text make a child (or an adult!) think about what an answer might be, rather than just

learning it by rote. The pedants among us might quibble with some of the facts — for example, fungi are not really plants (maybe a sequel to *Vicious Veg: Fateful Fungi?*) — but, to be fair, the information is remarkably up to date.

One element of these books that shines out are the stories of scientists and their discoveries. Told with verve and style, the excitement of doing science really comes through. The Horrible Geography books are full of natural history: *Raging Rivers* has a section on the Amazonian fauna, and *Odious Oceans* a section about fish, crustacea and molluscs.

My daughter, when asked why she liked these books so much, said, "They are hilarious, and you learn things too." Sounds fun — just like science! ■

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tions of meteorological phenomena are cogent and lucid, avoiding too much technical detail. **Wetterstation** is a German translation from the 1996 French edition (*Secrets de la Météorologie*; Gallimard Jeunesse). In addition to the historical aspects of meteorology, it gives clear descriptions of aspects such as precipitation and climatic zones. The small weather station from which the book takes its title is more of aesthetic value than anything else.

Weather & Climate, one of the books for children of 12 years and up, gives instructions for building a complete weather station using simple materials. The pages are packed with information yet remain clear. **Stormy Weather** tells exciting eyewitness stories of hurricanes and other dramatic events. Amusing sketches and cartoon stories sugar the pill of complicated correlations such as highs and lows. The book even describes events from the history of meteorology, and ends up with a look at what a modern meteorologist does.

Of the weather-tracker kits designed for children over 12 years, the best of the bunch are for German speakers. The accompanying books — which include help with weather-forecasting — are written by specialists, and **Wind und Wetter** gives clear instructions for experiments that help to show the effect of meteorological parameters. The kit includes two simple but accurate thermometers and materials for making a wooden weather-vane.

Wetterstation is the most elaborate kit. Its very professional-looking equipment includes a weather-vane and speed indicator with a small computer, and a Styrofoam weather hut. However, the scientific-looking

thermometers lack accuracy. The guide to 55 experiments is very well structured, with great emphasis on descriptions of typical cloud pictures. It is fascinating to see how you can imitate land and sea breezes, trade winds and the greenhouse effect at home. If you want a good weather book or kit, check that ready-adjusted instruments are included. Then sit back and watch your children enjoy learning about meteorology. ■

Cornelia Lüdecke is at the Institute of the History of Natural Sciences, Ludwig Maximilians University, 81371 Munich, Germany.

Unser Wetter

by Angela Weinhold

Ravensburger: 2000. DM24.80

The Weatherbirds: An Incredible Journey Through the Weather of the World

by Ted Dewan

Puffin: 2000. £5.99 (pbk)

Wetter

by John Farndon

Bertelsmann: 1999. DM10

Wetterstation

Ars-edition: 1997. DM19.90

Weather & Climate

by Fiona Watt & Francis Wilson

Usborne: 1992. £4.99

Stormy Weather

by Anita Ganeri

Scholastic: 1999. £3.99

Wind und Wetter

by Frederike Vogel & Christoph Kraul

Walter Kraul: 1996. DM47

Kachelmanns Wetterstation

by Jörg Kachelmann

& Alexander Lehmann

Franck-KOSMOS: 1998. DM198