I was often left hoping for more, but was unable to find it.

Russell Stannard's **Our Universe** (Kingfisher; £9.99, \$14.95) satisfied my hunger. Here is a delightful book, written as a dialogue between the author and his young readers, weaving questions and answers into a story that is factual without being dry, exciting without being oversold. What do you need to read this book? "Imagination", replies Stannard. "There is no other way to make the journey."

Philip's Atlas of the Universe by Patrick Moore (Philips, £25) is a serious book. It is hugely informative and stamped throughout with its author's hallmark: engaging prose, a blistering pace and plenty of the latest colourful photographs from space missions and amateurs, beautifully executed original drawings and information-packed tables. I was once told that Moore periodically reserves a hotel room for a week, packs up all the illustrations for his latest book, moves in, shuts the door and starts dictating text as fast as his secretary can write it down. Be that as it may, Moore knows astronomy as does no other popularizer and he can write about it in a way that is accessible to all educated interested readers. But as its title implies, this is no introduction to the Universe; rather, it is an atlas that belongs in the classroom. And every serious armchair astronomer (of any age) will welcome it as a reference book that can be opened to any page and read with pleasure.

To end on a similarly high note we have David Levy's Skywatching (Harper-Collins, £14.99). Levy is an amateur astronomer in the best sense of the word: not only does he find comets, but, as shown by last year's collision of comet Shoemaker-Levy 9 with Jupiter, he is also capable of losing them. His experiences and love for the subject come across vividly in his writing. This "Ultimate Guide to the Universe", ostensibly aimed at those brave souls willing to forgo late-night television for a real show in the night sky, has been masterfully produced in a tradition reminiscent of Fred Hoyle's Astronomy and the many editions of the Larousse Encyclopedia of Astronomy, two books that I grew up with, kindling my own interest in astronomy. Brilliantly illustrated, every page of Skywatching is meticulously laid out and blended into a single volume that will serve as a reference manual in the library as well as a field guide at the telescope. All involved in the project deserve credit for creating the best popular book on amateur astronomy that I have seen in a long time.

Barry Madore, the father of a seven- and an eight-year old, is at IPAC, California Institute of Technology, 770 South Wilson, Pasadena, California 91125, USA. LITTLE ONES -

## More light than heat

Ros Cotter

Fire: Friend or Enemy? Kingfisher, £12.99; published as *Taming Fire* in the USA by Scholastic at \$19.95. The cover entices the young reader in through an impressive embossed display of erupting magma. Fire continues to play visually upon the topics inside, which besides volcanoes include lightning, cooking, blacksmithing, rockets and fireworks. There are plenty of historical snippets too (on firearms, fire festivals and signalling with fire, for example) and a whole cast of celebrities (Thor, Prometheus, Lavoisier, Nobel and Franklin, to name a few).

The language is lively (that magnificent word 'conflagration' is vividly explained) and illuminates an imaginative range of scientific and cultural information. I asked my inquisitive ten-year-old nephew Freddie for his opinion. He would have liked more on lightning and something on the ecological effects of bush fires. Rather disappointingly, he considered that the book belonged in the school library ("for fire projects"), indicating that despite stickers and even a pull-out pizza in the cooking section, it had not quite made it over the education-entertainment barrier.

Taming Fire is indeed comprehensively indexed and is a valuable reference book. But details that might intrigue a parent or teacher (how the tinder mushroom works, why humans started to cook their food) kindled less interest in Freddie than the fact that tallow candles "filled the room with smoke and smelled awful".

The book ends with a rather drab page of fogeyish safety tips (the reader is advised to encourage his or her parents to check smoke detectors regularly). Given the dangerous fascination and excitement of fire, perhaps these would have benefited from the interactive treatment accorded to other subjects.

Ros Cotter is on the editorial staff of Nature.

## **Energetic reading**

Ian Fells

From the Big Bang to Electricity. Kingfisher, £12.99; published as Exploring Energy in the USA by Scholastic at \$19.95. This is a very colourful book with lively diagrams, photographs and drawings printed on a black glossy background. It deals with energy in an encyclopaedic way, starting with the Sun and proceeding through muscles, water wheels, steam, electricity, light bulbs (first invented by Swan, not Edison as the text claims) all the way to nuclear power and renewables.

A certain amount of 'do it yourself' is

required of the reader; diagrams and drawings open out and parts of pages are removed by tearing along dotted lines. I was reluctant to let my young grandson tear bits of pages out of a book; not a habit to be encouraged. But he enjoyed applying stickers of rockets, engines, nuclear steam presurisers (sic) and bicycle dynamos to the appropriate spaces on the pages. We liked the real feather overlaid by a plastic sheet that becomes charged when the plastic is rubbed and then removed.

The detail in the book is considerable, with a strong historical gloss only really appropriate for 11–12-year-olds. The price for 45 pages seems a bit expensive, even for an indulgent grandfather.

Ian Fells is in the Department of Chemical Engineering, University of Newcastle upon Tyne, Newcastle upon Tyne NE1 7RU, UK.

## **Change for the better**

Trevor Davies

**The World of Weather.** Kingfisher, £12.99; published as *Wind and Weather* in the USA



by Scholastic at \$19.95. I do not often read children's books. Perhaps I should, as I enjoyed this one: the snappy design meant that I could dip in and extract fascinating information before my attention span was exhausted and allowed me to indulge my indiscipline of reading pages in an almost random order.

There are things to do, such as opening up inner pages, exploring the overlays, using 3D places (impressive) and placing stickers

glasses (impressive!) and placing stickers on pages. The pages are colourful and 'busy', but the science is presented in eminently digestible pieces.

The weather is, of course, a wonderfully accessible medium for illustrating physics and the book takes full advantage of this. I would like to think that the young reader will absorb some of the excitement of science that the book conveys. The description and explanations for weather, and the underlying physics, are sound, although the pedant would argue that a few have been compromised in the cause of explanation. The publishers are justified in their approach: the important thing is to interest a child sufficiently for him or her to want to know more. Only the 'targeted consumer' can be a judge in that regard, but this middle-aged 'expert' believes that they have put together an entertaining and informative "living encyclopedia". I will be disappointed if it does not succeed.

Trevor Davies is in the Climatic Research Unit, University of East Anglia, Norwich NR4 7TJ, UK.