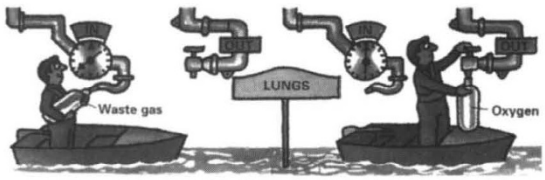
The body in question

Alan Maryon Davis

YOU'D think it would be easy for me, but being a doctor actually makes it harder. I spend hours poring over the human body books in the children's section, trying to find something that will grip the imagination of my two daughters, aged 10 and 12, but in the end I do the sensible thing and let them choose for themselves.

They immediately warm to a book that, in the 20 years since it was first published, has become a minor classic. Now fully revised and updated, Judy Hindley and



Colin King's **How Your Body Works** (Usborne; £7.99 (hbk); £4.99, $7.95 (pbk)) is a lively romp through the mechanics of the body — or, rather, a wonderfully imaginative 'Heath-Robinson' version of how it might work. The cartoon pictures are all levers, gears, conveyor-belts, buckets, hods, funnels and telephone switchboards, with little people pulling, pushing and shoving this or that. It is a riot of busy internal goings-on, and guaranteed to intrigue any child. It begins brilliantly with the digestive system — great scope here of course, with a suitably yukky chunk on being sick — and goes on to cover all the main bodily functions. The text is simple and clear for children of about 8–12 years old, with frequent questions such as "Why do you have pains?" and "What is a scab?". "Great fun", says Lizzie, my 10-year-old.

Although *How Your Body Works* is all physiology and very little anatomy, **Make It Work! Body** by Andrew Haslam with text by Liz Wyse (Two-Can, £8.99) is the opposite. It sets itself a difficult task — to convey a knowledge of the main organs and parts of the body by getting children to make models of them — but I don't think it quite succeeds. The book is liberally illustrated with colour photographs showing step-by-step how to put the models together out of common-or-garden materials. But not only are most of the models fairly fiddly to make, but in a way they also distract from learning about the function. There is little description of this, because most of the space is taken up with design and technology. Imagine spending a morning carving the atlanto-axial joint out of polystyrene, and then finding it doesn't do much to explain why we can turn our heads in all directions. Okay for the occasional school project, but not particularly educational. "All right if you like getting in a mess", says Lizzie.

Moving to a slightly older age group, we come to **The Egg and Sperm Race** by Fran Balkwill and Mic Rolph (Collins, £12.99) — the same stable that produced the award-winning *Cells Are Us* and *Cell Wars* — beautifully illustrated by Rolph with gorgeous pictures of cells, organs, double helixes and the panoply of human biology. My only disappointment is the lack of labels. Is it a brain or a heart or a kidney? Yes, I know the answer, but a lot of children won't. Balkwill's text is lively and informative, set out in undaunting short blocks. The most inviting sections are those in the form of illustrated strips of words and pictures, and there is a fascinating section at the end looking at what your body has done in the past 60 seconds — made about 300 million red blood cells, grown one ten-thousandth of a millimetre of toenail and so on. "Yes, I like this one", says 12-year-old Jessie, "well set out with very good pictures".

And for teenagers there is a new book from Balkwill and Rolph, with the help of Victor Darley-Usmar, **Microbes, Bugs and Wonder Drugs** (Portland, £12.99; distributed in the United States by Cold Spring Harbor Laboratory Press at $20). This is essentially a book about drugs — therapeutic and 'leisure' drugs — with potted histories of their discovery, the way they work and the use they are put to. The subject is covered in surprising depth — the importance of the tertiary structure of drug molecules and receptors for instance — strong stuff for 14-year-olds. The story of AIDS and HIV is there. So too is herpes simplex and acyclovir. And of course we have penicillin, aspirin, anaesthesia and addictive drugs. Once again, the text is written in a clear accessible style, although it comes in rather off-putting long blocks. The pictures are as good as ever, and work best when linked together in strip form. "Really good stories — I learnt a lot", says Jessie.

Finally a grown-ups' book that is a treat for older children as well: **The Guinness Encyclopedia of the Human Being** by Robert Youngson (Guinness, £21.95). This is a most handsomely turned-out work of reference: a large-format hardback, with masses of information and profusely illustrated. It starts with how we evolved and then moves from body system to body system, taking in a smattering of psychology and human behaviour on the way. There are little snippets of history, and glimpses of up-to-the-minute technology, and the whole is thoroughly cross-referenced to guide the reader around. I particularly welcomed the useful "Factfinder" feature at the back — a combined index, medical and biographical dictionary. "All a bit too much for me", observes Jessie. "Maybe when I'm a bit older". Hmmmmm — maybe. □

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Making sense

Fran Balkwill

BEDTIME story. Mother-by-night, scientist-by-day picks up a simple 'body book' and reads: "Cells are blobs of grey jelly with a hard bit called a nucleus in the middle" — not an entirely satisfactory introduction to cell biology. But how to write a better one?

First, find a topic of universal appeal to children that can be reduced to a minimum of words and a maximum of pictures. The challenge (and ultimate reward) of distilling essential concepts into a language that children can understand lies in deciding what to leave out and in maintaining accuracy without complicating things. Young readers need to assimilate one point before proceeding to the next; they gain confidence by grasping a few basic concepts that they can return to again and again.

Science lends itself to storytelling, and a strong narrative style combined with a beguiling and inventive visual language (rather than the turgid abstract phrases of scientific journals) will help to maintain a child's interest. Used sparingly, scientific terms can be popular with children, expecially if accompanied by phonetic spellings, such as 'dee-oxy-rye-bow-new-clay-ick acid' (with apologies to American speakers).

Print runs are usually larger than those for academic books. In Britain, for example, more than 10,000 copies can be sold if the title is adopted by high-street bookshops and book clubs. And it pays to remember that children's science books have international appeal. With foreign editions, sales may exceed 100,000 copies, particularly if the book is part of a series: many publishers and bookshops are enticed by four or more volumes with a common theme or design.

Fun and humour are important: science can be daunting, and a reverential approach may alienate youngsters. That said, anthropomorphism is best avoided: 'Sid the Satellite' is invariably impossible to sustain or contain. But the key to a successful children's science book is the happy marriage of text with illustrations. For it is pictures that initially lure a child in. □

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