

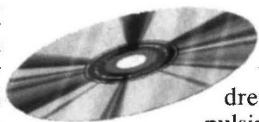
# Hyper-media or media-hype?

Tim Brosnan

CHRISTMAS is coming and if you are looking for a science CD-ROM for your children you could usefully turn to **The Computer Museum Guide to the Best Software for Kids** by Cathy Miranker and Alison Elliott (HarperPerennial, \$16) for advice. This is an impartial and informative collection of reviews written by staff at the Computer Museum in Boston that summarizes more than 200 pieces of software (mostly CD-ROMs) written for children aged 2–12, giving each product between one and four stars for learning, looks and longevity.

Any package you buy should ideally entertain and enthrall your children, helping to turn them on to the joy of learning science. Such software does exist but so does much that is boring — or worse. I have looked at three pieces of software that illustrate radically different approaches to 'having fun in science' and have compared my ratings with the guide's. (One can also access the Computer Museum's list of "best buys" and regular updates on its reviews via its World Wide Web page at <http://www.tcm.org/>.)

I opened **Widget Workshop** (Maxis, \$34.95, £29.99) with keen anticipation because it is published by the company that produces the superb "Sim" range of computer games. This CD-ROM is a collection of attractive computer 'widgets' that can be connected together to perform different kinds of counting, timing and logic activities. These are imaginatively designed and the disc is accompanied by a range of "exploration tools" such as a thermometer and magnifying glass for use in activities intended to relate the computer simulations to the real world. The guide gives it two stars but notes that it is "so challenging that many kids will need your help to take advantage of everything it offers". True, but the reason I was crushingly disappointed when I used it and why I cannot give it even one star is neither this nor its penchant for f.p.s. rather than SI units, nor even that the science covered is consistently way over the level of any 8-year-old I know (its target age). What worries me most about this product is that, in an age when all involved in science education are concerned to show that science is for everyone and to destroy the stereotype of a scientist as a crazy white man in a white coat, it blandly tells us that "the most fun way to look at science is from the point of view of a mad scientist" and rewards success by letting you join the "Mad Scientist Hall of Fame, take over the world and advance to... more science



and more madness". Not only that, some of the activities are highly unethical. In the second one children are told to connect a heart icon (a pulsing switch) to a bulb with a single piece of wire to make it flash and are then told: "That's how a real mad scientist turns on a light bulb".

How many readers of *Nature* would want children to think that this is what they get up to? Is this really the best way to encourage children to believe that science is for them? I think not, and neither do the authors of **Science Adventure II** (Knowledge Adventure/Random House; \$29.99, £29.99), who obviously have their hearts in the right place when they write: "the way to ignite a child's intellect is to introduce him or her to the fun of learning. If we truly achieve this, we no longer have to come up with sneaky ways to get kids to learn."

Unfortunately their CD-ROM does not achieve this. The guide gives it only one star, noting that it "fosters the random acquisition of facts" and that there is "too much looking and not enough doing". They are right. Despite containing a vast amount of information, its poor produc-

tion and lack of interaction and signposting let it down, and all who tried it soon got bored and stopped.

This was not true of the beautiful **Eye-witness Encyclopedia of Science** (Dorling Kindersley; £59, \$79.95), which captivated all who used it. Essentially it is a CD-ROM version of one of their books, but this is like describing the Grand Canyon as a hole in the ground. It has a stylish, clear structure and interface that lets you find out easily what you want to know while guiding you to paths you might not have thought of. The text, illustrations, video clips and hypertext links are attractive, thoughtful and appropriate and the slips few (an example is the widely spaced water molecules in the section on dissolving). Using it, one begins to experience the true fun of learning science with the excitement in the science not the gimmicks. How refreshing to find a hypermedia product that is more media than hype. The guide gives it a fully deserved three stars. If you like the Dorling Kindersley range of books, don't buy them — get the CD-ROMs instead. □

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## HANDS-ON SCIENCE

# Random walks and lucky dips

Graham Farmelo

GENERALLY speaking, the standard of children's science books is pretty dreadful. Anyone who has served on the judging panel of the Rhône-Poulenc Prizes for Science Books will confirm the difficulty of finding six first-class children's books for the shortlist. The problem came to a head last year when the judges shortlisted only four books.

The usual complaints about these science books are that most of them are uninspired, undemanding and formulaic. True, their subject matter is limited by the narrow range of observations that lend themselves to elementary scientific discussion, by the few domestic items that are readily available for experiments and by the all-important safety considerations. Yet, even with these constraints, there is surely still plenty of scope for the talented writer and illustrator to capture the imagination of the young scientist.

In **Riddles in Your Teacup** (2nd edn; Institute of Physics; £10.95, \$22), Partha Ghose and Dipankar Home consider dozens of everyday phenomena that can

be understood using simple scientific ideas — how bees buzz, why one should not lick an ice tray, why migratory birds fly in V-shaped formations, and so on. Many will enjoy dipping into this attractive though rather feebly illustrated little book, which is likely to appeal beyond its main audience of high-school children.

All the other books in this selection aim to make science accessible through experiments and other 'hands-on' activities. Janice VanCleave's **Geometry for Every Kid** (Wiley; \$12.95, £6.95) is a clear if somewhat stolidly presented set of activities for 8–12-year-olds.

It would provide useful back-up material for students struggling with mathematics at school, although the style of presentation is so formal that few children will choose to read it of their own volition. The same could be said of the author's **Electricity** (Wiley; \$11.95, £6.95), which features 20 standard experiments about the nature of electricity. As the publisher claims, these are "simple and fun", but few children these days will find them "mind-boggling".

