Can You Feel the Force? Putting the Fizz Back into Physics

By Richard Hammond

Reviewed by Jennie Hargreaves, Lockerbie Academy, UK

Any book that has in its introduction "Physics is the action department of science... only physics can explain what happens if you throw [an apple] at a brick wall at 200 mph" has my attention.

In addition to such punchy text, Can You Feel The Force? by Richard Hammond includes beautiful colour photographs and is creatively presented in a format that is typical of the publisher, Dorling Kindersley. For example, some of the pages are printed upside down to indicate opposites: the spread on light wave/particle duality has the particle information the right way up but the wave material upside-down. This approach is also used for the 'slip and grip' pages.

The book begins with a timeline for some of the major fathers of science, starting with the ancient Greeks, such as Aristotle, continuing with Archimedes, Copernicus and Galileo, and finally ending with Newton. You won't find any women here, although Marie Curie is included in the modern timeline at the back of the book – together with Einstein, Heisenberg and Dirac.

The book suggests that scientists are eccentric and that science and religion cannot function together because they are diametrically opposed. For example, it states, "Like many great thinkers and scientists, Aristotle was a little eccentric." I am not sure that it will encourage young people to study

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science if we are all seen as mad. Likewise, although the church has held back some scientific ideas, religion and science can both aid our understanding of the world. These stereotypes deserve to be challenged.

The book has some inconsistencies for example, the assertion that "There are forces acting on you all the time" contrasts with the statement that "before you set off, your bike is standing still because there's no force acting on it." There are other criticisms that could be made, but this is a book that can be read and enjoyed even by children who would never open a standard physics book.

My two children, who love reading, found the book very enjoyable. My 9-year-old son wants to make a secret squirter. This is built from a plastic bottle filled with water with the words 'DO NOT OPEN' written on it. Holes are made in the bottle with a pin, and the water will only leak out when the lid is taken off. My 12-yearold daughter initially felt that the book was for 7 to 9-year-olds because of the large print and layout, but eventually got lost in string theory as it does cover some heavy science.

Can You Feel the Force? would be excellent in the school library with a couple of extra copies on the classroom shelf. Teachers could try the short experiments, use the book to generate questions, or give the students tasks to do at home.

Details

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