

# REVIEWS

## Explaining primary science

Paul Chambers and Nicholas Souter

London: Sage, 2017  
408 pp. £24.99  
ISBN 978 1 4739 1280 9

*A book for trainee and newly qualified teachers (and beyond!) which gives all the science subject knowledge necessary to teach primary science confidently*

This book is aimed at students studying primary science on initial teacher education courses as well as newly qualified teachers. It is a well-written book covering all the major areas of science, starting with key scientific knowledge and backed up by practical activities.

The clear explanations make it a very accessible read for the non-specialist, as it aims at building understanding, thereby ensuring a sound foundation from which to teach and also helping to

build teacher confidence. At the beginning of the book are useful links to the English and Scottish curricula (links to the curricula of Wales and Northern Ireland are not included but I am sure that trainee teachers in these settings will still find the book useful).

Each chapter is set out in the same way: learning objectives followed by background knowledge, a range of suggested practical activities, a summary and useful reflection points for the student to consider after reading the chapter. The activities include questions to direct the learning, safety tips for the student to consider and links to real-life situations – great for helping to build science capital! Children love activities that grab their imaginations and creative activities described that caught my eye were ‘fishing for microbes’, the idea of exploring an ‘enchanted forest’ as a way of studying seed

parts, vermiculite grass heads, and looking at the relationships between arm folding and arm clapping, which certainly got my family intrigued!

The diagrams included in the book are clear and aid understanding; my only criticism is that the photographs are small and the image quality doesn't do the book justice in my opinion. However, I love the range of illustrations used as title pages to each chapter – talking points in themselves!

Nothing works better for a teacher than a practical example (whether new to the profession or not) and I particularly like the way that the authors have incorporated links to chapter-specific videos of experiments and demonstrations through the companion website for Sage Publishing. These short clips are designed to support teaching: set in

laboratories, they include equipment that is not easily accessible in the primary school. However, I can see these being used as great discussion points to extend understanding. The fact that there is no any commentary really makes the student (or child) observe closely and think!

I picked up many tips and ideas as I browsed through the book, including interesting information I didn't know (or had forgotten!) on how elements received their names, such as that the word ‘copper’ comes from *Cuprum*, the Latin name for Cyprus, where the Romans mined much of their copper and the reason why the symbol for copper is Cu!

In summary, I think that this book is a must for all trainee and newly qualified teachers; it would also be a good addition to a staff room bookshelf as a reference point for non-specialist teachers too. I only wish this book had been available to me as a teacher to extend my teaching and help me answer those difficult questions children often come up with!

**Carol Sampey**

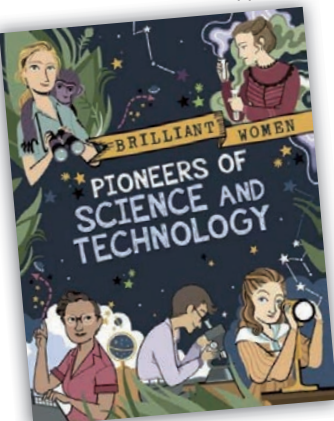
*PSTT Area Mentor, Primary Science Consultant*

## Brilliant women: Pioneers of science and technology

Georgia Amson-Bradshaw  
London: Wayland, 2018  
48 pp. £13.99  
ISBN 978 1 5263 0422 3

*A useful classroom text to place into the hands of young women (ages 9–14) to support them on their journey into science and technology*

Wayland's *Brilliant women* series includes the titles *Pioneers of science and technology*, *Amazing artists and designers*, *Heroic leaders and activists*, and *Incredible sporting champions*. The science text is the focus for this review, and it does not disappoint.



The book does much more than listing women from across the ages; it explains how each woman came to be a scientist and invites the reader to step into their footsteps.

The book does not shy away from the difficulties and adversities that women have faced, making it a useful text to stimulate a discussion about prejudice. For example, Marie Curie attended an illegal underground school because women were forbidden to attend higher education at that time. The book includes relevant historical context to explain the difficulties faced by such pioneers, such as Katherine Johnson's experience of segregation as a black female mathematician at NASA.

There are eight women described in depth, with four pages on each: one on key facts, two pages explaining their life and the final page ending with prompts for ways to get involved in science. For example, readers are invited to join a code club to program like Ada Lovelace or start a local nature campaign like Jane Goodall. The book ends with briefer details about nine other women, a glossary and suggestions for further reading, and links including the Big Bang Fair and the British Science Association.

I would recommend this book as a useful classroom text; it should be placed into the hands of young women to support them on their journey into science and technology.

**Sarah Earle**

*Senior Lecturer, Bath Spa University*

## The poo that animals do

Paul Mason and Tony De Saulles  
London: Wayland, 2017  
32 pp. £11.99  
ISBN 978 1 5263 0394 3

*A humorous insight into animal poo that will delight readers of any age, though aimed at 7–9s*

*The poo that animals do* is a fun and well-illustrated book guaranteed to provoke a range of reactions from ‘Eurgh!’ to ‘Wow!’, alongside much sniggering! Although the text is aimed at independent readers aged 7–9, it would still entertain younger audiences when shared with an adult and be a popular book in any primary classroom.

The book is well set out and the large-size font and wealth of humorous illustrations deceptively convey a great deal of information that is both interesting and educational. Photographs are also included to show real images of animals alongside their cartoon versions and where more exact representations are needed as in the

‘Guess whose poo?’ quiz.

The book is broken down into 14 chapters with engaging headings such as *Pricey poo*, *The poo nursery* and *The poo travel service*, which explore the benefits of ambergris, ‘poo coffee’, the use of dung for breeding dung beetles and the role of poo in the transportation of seeds. The inclusion of a glossary encourages children to find out the meaning of unfamiliar vocabulary so that they can widen their

knowledge of scientific terminology such as *bacteria*, *intestine* and *nutrient*. I like how readers are directed to ‘Find out more about poo’, with links to research the topic further and answer their own questions.

*The poo that animals do* would be a great addition to any primary classroom and is a fun way to educate children about less attractive aspects of the animal world. It will encourage reluctant readers as well as inspire children to share their new knowledge with their peers and families, although they may need to be warned not to do so at the dinner table!

**Kerry-Anne Barber**

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