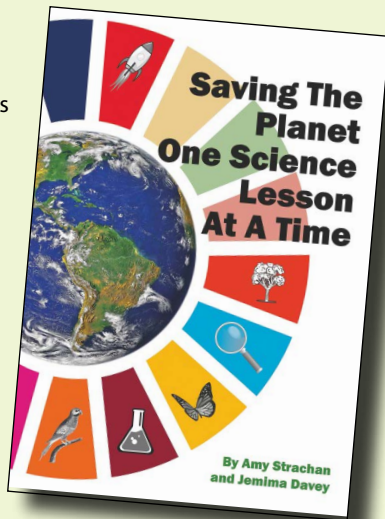


Saving the planet one science lesson at a time

Amy Strachan and Jemima Davey
Hatfield: Millgate House Publishers, 2022
123 pp. £25.00
ISBN 978 0863 57479 5

A framework for embedding global issues into primary science learning using the UN Sustainable Development Goals

This book consists of 17 chapters, one per Sustainable Development Goal (SDG). It is full of ideas and enquiry activities to add purpose and value to science education. The authors' intentions are to support learners to develop an appreciation of their global habitat and empower them to make informed positive decisions – we think this book does exactly that! The big issues covered by the SDGs can be frightening and overwhelming, perhaps leaving children feeling helpless. This book takes a fictional character and context to break down those barriers, making the SDGs accessible to children.



The book would be an excellent resource for planning a science club or a whole-school science week and, with careful planning, these activities could also be integrated into your curriculum. The helpful table at the back of the book guides teachers to cross-reference the science knowledge and enquiry types with an SDG.

Each SDG lesson follows the same pattern, which includes teacher guidance: key understanding, the goal in context, critical thinking and taking action. Following this, there is a four-part child-friendly poster, a section that could be used to guide children through 'purposeful enquiry' and 'create' activities, as well as visual prompt cards.

The images are of extremely high quality; they are eye catching and both children and adults would enjoy looking at them. The linked resources consist of a downloadable PowerPoint, which you can edit to support each SDG lesson. The only thing we would change is that the poster and visual prompt cards, which appear in the book, would also be available in the electronic download to enable us to share them quickly and easily with children.

If you, like many others, first started to seriously consider sustainable education around about the time of COP26, you will find this book an invaluable resource to implement sustainable education approaches into your teaching. If you are already familiar with the SDGs through using the Practical Action resources, this will be another opportunity to further engage with them.

Helen Spring
Primary science and outdoor learning consultant and author
(SpringLearning.co.uk)

Bryony Turford
Primary science consultant and author, Director of My Science Club
(MyScienceClub.com)

Amazon River

Sangma Francis and Rômolo D'Hipólito
London: Flying Eye Books
(Nobrow), 2021

78 pp. £14.99
ISBN 978 1 912 49733 1

A mesmerising kaleidoscope of factual information for ages 8–11

Amazon River is a brightly coloured, engaging and fascinating book. Even before you open the non-fiction masterpiece you are awakened by the stunning iridescence of the front cover, which illuminates the subject matter to the reader.

The contents page displays four sub-headed sections focusing in on the sea, the wildlife, the people and life on the river. What is so striking about the appearance of this book is the illustrations: they are unbelievably colourful and completely memorable. On pages 10–11 we are introduced to a stunning map of the Amazon Basin and explanation of its tributaries and where it all starts. The authors have clearly put a lot of thought into how the book looks and how the reader will absorb some of the key knowledge from the outstanding illustrations.



As we move on through the book, each sub-heading illuminates a beautiful nugget of information, a snippet of information that we are bound to remember. Take the diagram of the water cycle on pages 14–15. This is not a stereotypical textbook diagram version but an Amazon-specific illustration punctuated by captions that speak of how the

cycle works in this rainforest. The section on wildlife is illuminating, creative and incredible, the curiosity of the reader fed by the explanation on how the ecosystem functions.

This book should be the main text a teacher or any educational professional has in the classroom when teaching rainforests, specifically the Amazon. It is a mesmerising kaleidoscope of factual information!

Michael Good
Y6 teacher and science coordinator, Stoneferry Primary School

Scientists are saving the world

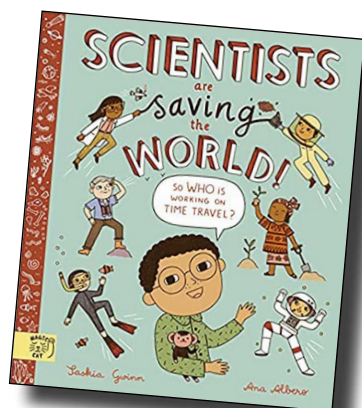
Saskia Gwinn and Ana Albero
London: Magic Cat Publishing, 2022

40 pp. £12.99
ISBN 978 1 913520 54 0

A superb book for all teachers needing a few ideas of the scientific careers that are out there

What can I say? This book is one of my recent favourites for many reasons. I am using it for my science corridor display this term to encourage the children to see that the questions they ask themselves or want to find out the answers to are just how famous scientists began their careers: asking questions. It could be used as an introduction to a career in an area of science the children are currently learning about or as a reference book alongside a science display related to science careers. With adult support and direction it would be suitable for any primary-aged child or could be used independently in key stage 2 (ages 7–11).

Each double-page spread looks at a different scientific career and gives examples of scientists: male, female and historical as well as contemporary ones, listing briefly what they discovered. For example, the robotic engineers page looks at examples where robotic engineers have had an impact, such as on movie sets or using robots to harvest food on farms. It then goes on to focus on Stephanie Wilson and Shigeo Hirose and their robotic creations.



The selection of scientists covered is varied: astrophysicists, arthropodologists, botanists and even acoustic biologists – who even knew that was a career?

The final double-page spread gives the reader the opportunity to discover 'Which scientist inspires you?'

A super, easily read book to inspire future scientists.

Jane Banham Friskney
All Saints Primary School

XO, Exoplanet

Deborah Underwood and Jorge Lacera
New York: Little, Brown, 2021
40pp. £8.99
ISBN 978 0 7595 5743 7

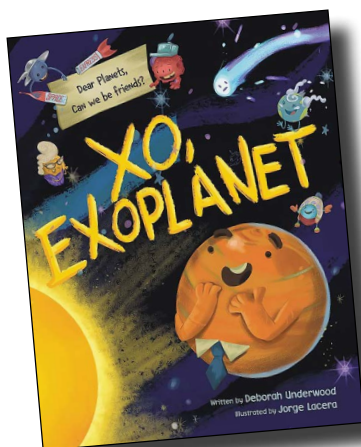
A colourful and comedic fictional story, which introduces the reader to our planets and other celestial bodies beyond our solar system; suitable for ages 4–8

When Neptune notices a planet, an exoplanet, circling a far star, he enlists the other planets in our solar system to send a letter, but soon there is a disagreement on which, exactly, is the exoplanet. This is a colourful and comedic fictional story, which introduces the reader to our planets and other celestial bodies beyond our solar system. Each of the planets and bodies take on a character, which cleverly incorporates their features. The book also has a moral message of kindness and seeing the world from somebody else's point of view.

The front cover draws in the reader via its colourful illustrations and a well-placed question, 'Dear Planets, can we be friends?' The inside front cover, while introducing the characters, develops children's

scientific knowledge and language. You see for the first time all the playful planets; for example, Jupiter, looking smart and in charge in a shirt and tie, and Uranus, wearing a woolly hat to represent its frigid temperatures. Letters are used to great effect throughout and on the back page the reader is written to, also, to explain what we know about exoplanets, to help the reader, parent or educator.

The exoplanet is spotted and the planets decide to write a letter to welcome it to the galaxy. The salutation is an 'XO', a modern way to say 'hugs and kisses', which may resonate with the younger reader and show that the letter was meant to be fun, informal and welcoming. A number of letters back and forth ensue, in which the supposed exoplanet questions being identified as such, as it sees the planets in our galaxy as exoplanets. A comet passing by helps the planets see sense and then generate a decision to apologise for their mistake.



This story would be a great way of introducing young children to the basic scientific language of the solar system, as well as teaching early informal letter writing. What I like above all, is the way in which it celebrates the differences in the planets (and reflects on humans) and how we need to look at the world from somebody else's viewpoint. I highly recommend this book for teachers and parents and I believe it would be a firm favourite with all 4- to 8-year-olds.

Kathryn Jagger
Assistant head teacher and science lead, Spotland Primary School, Rochdale

Battle of the butts: the science behind animal behinds

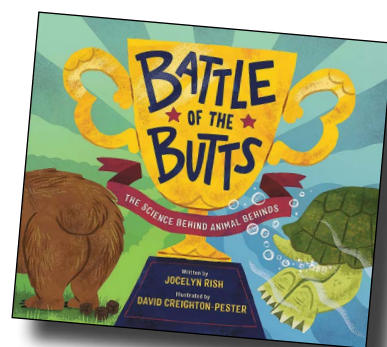
Jocelyn Rish and David Creighton-Pester
Philadelphia, PA: Running Press Kids, 2021
44 pp. £17.99
ISBN 978 0 7624 9777 5

The title alone sold this to the children in my class! Suitable for ages 6–11

Mmm what can I say? My immediate reaction was 'I can guess who is going to love this', and I was right! This book is a delight; children love it and teachers and parents will grow to love it when they see the enthusiasm of the children as they read and absorb all the information from the text and illustrations. I offered this initially to a couple of children during our 'reading for pleasure' time and those children who are normally very set in their ways with regards to the books they will read were, within minutes, asking if they could share a few quotes from it with the rest of the class. As you can imagine, once they had shared a few random facts such as, 'A bombardier beetle deploys its defences before it gets eaten, but frogs have super-fast tongues. If a bombardier beetle gets swallowed by a frog, it sets off its butt bomb inside the frog's stomach. This often makes the frog barf out the beetle still alive!' I had children queuing up for their turn to read it.

The illustrations are bright, colourful and show not only the animal but also the habitat where it lives. I love the way the content is presented initially in a factfile type style, which is then expanded upon in more detail on the next few pages. I was pleased to see a glossary at the back of the book and I was particularly delighted to see an opportunity for the children to review their reading and learning about the animals and their butts in a fun way by rating the various animals in the order of 'butt power'.

It is a hardback book and the paper thickness is certainly sturdy enough for most classroom situations. This is a definite must-have for the school library, especially for



reluctant readers who will be enraptured by the topic area. Even as an adult I learnt some fascinating facts from reading the book – did you know manatees swim using farts? This gives you an idea of the sort of book this is and the audience it will appeal to. It is certainly a winner in my classroom.

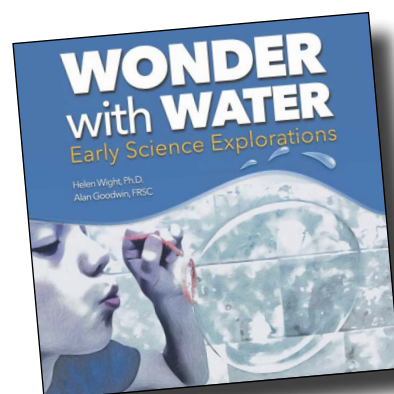
Jane Banham
PSTT Fellow, STEM lead, Friskney All Saints Primary

Wonder with water – early science explorations

Helen Wight and Alan Goodwin
Independently published, 2022
102 pp. £10.56
ISBN 979 8 40553270 7

Engaging experiments that can be accessed by children as young as 3

This is a wonderful little science book full of experiments and investigations with water. The introduction explains how the book works and what every double-page spread contains: the activity name; the equipment needed; a scientific explanation (these are really clear and simple, giving children just the right amount of information to keep them engaged); instructions (in clear bullet points); a simple illustration and questions for the children to explore further.



The images are all in tones of blue, highlighting the water theme nicely, although they do appear a little dated and may not appeal to children on first reading. However, all the investigations and experiments are really engaging and accessible for every household. The science behind each investigation is clear and well explained. Be aware that it is American and therefore contains American spellings (only an issue if using this in class).

I think the book would appeal most to parents of younger children (especially those that are bathed by their parents as this is the perfect time to carry out the majority of the investigations), more so than a book to use in the classroom, although there are lots of really good ideas for those teaching states of matter. I have used this book at bath time with my own children and they loved it, asking again and again for the 'water science book'! My favourite investigation is the Bubble Snake (pages 74–75), with some brilliant opportunities for fair testing (changing the size of the holes/the fabric/the bubble mixture) to see what differences it makes compared to the original investigation.

Overall, this is a lovely child-friendly book for parents to work scientifically with their children using everyday materials. The author sums up the aim of this book perfectly: 'We hope this book inspires exploration, discovery and learning for our next generation of scientists and critical thinkers' – something we hope for all our children!

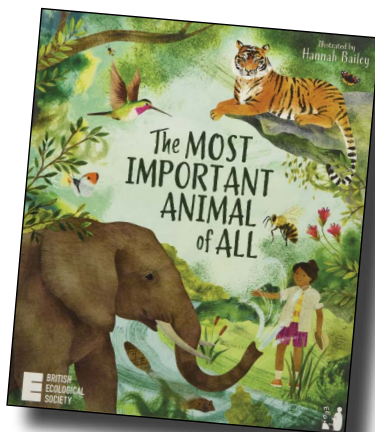
Hayley Collins
KS2 leader, All Saints' CE
Primary School, Clayton-Le-Moors

The most important animal of all

Penny Worms and
Hannah Bailey
Tunbridge Wells, Kent: Mama
Makes Books, 2021
40 pp. £7.99
ISBN 978 1 8381381 4 1

A great introduction for young readers (ages 5–10) to the amazing creatures in our world

This beautifully illustrated and vibrant storybook features both realistic drawings by the award-winning Hannah Bailey and photographs of the various animals depicted throughout the narrative.



The story outlines the learning and investigation of a teacher and her class, where the pupils are challenged to work out which is the most important animal of all in their world. From elephants to bats, beavers to krill, our minds are opened to the amazing abilities and characteristics of these animals that positively impact their ecosystems, other organisms and even us humans. Using important key words throughout, such as pollination, diversity, species and endangered, and relating to topics such as food chains and lifecycles, this book would be an invaluable addition to the classroom.

The book covers a range of topics, making it a great introduction for younger readers to the amazing creatures in our world, but also the negative issues that can affect these animals. It can be used by teachers in a variety of ways, covering many different curriculum topics, such as living things and their habitats, plants and evolution and inheritance.

This is an adaptable resource that teachers can incorporate into their teaching throughout the primary stage, using both text and illustrations to broaden pupils' knowledge of the many incredible creatures in the animal kingdom.

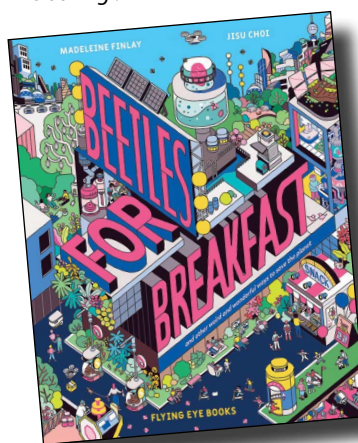
Eleanor Wharton
Primary education student,
Northumbria University

Beetles for breakfast ... and other weird and wonderful ways to save the planet

Madeleine Finlay and Jisu Choi
London: Flying Eye Books
(Nobrow), 2021
88 pp. £14.99
ISBN 978 1 83874022 1

A fun, informative and thought-provoking book, packed with information on how science and technology can help our planet, for ages 7–9

Beetles for breakfast is brightly coloured and the detailed illustrations will appeal to young readers. There is an array of interesting ideas that will be new to the children as they aren't all covered in the primary curriculum. These use attention-grabbing language choices, hooking the reader in, for example in the section where the writer describes having locusts for lunch and doggy diets. The book tends to follow this theme throughout, using easily recognisable everyday items that children are familiar with as a tool for delivering new knowledge surrounding scientific developments. This makes the book feel accessible, but innovative, such as 'making cow poo into cellulose for making clothing'.



As well as an abundance of substantive knowledge, there are also opportunities for children to apply the disciplinary knowledge gained from the book, with ideas for children to try at home, such as making the eco-fridge. This could encourage collaboration

between children, as would completing activities in the *What can I do?* section, although the plastic wormery would require adult help to put holes in the plastic box to be safe and may therefore be better suited to a home environment rather than the classroom.

Each chapter has numbered paragraphs, which are stand-alone sections to read. This allows children to choose which/how many sections to read, making the book more digestible and accessible. The child can be directed to one chapter or even one section of a chapter according to the aims of the session.

While being an exciting and informative book, some words used are not always fully explained and this could make understanding difficult for some children within the specified age range of 7–9; for example, the use of 'genes' and 'fermented'.

Overall, this book is vibrant, engaging and packed with information and guides for children, to inspire them to explore ways of protecting our planet. It looks to the future and encourages children to think about what the world may be like when they are adults, providing interesting, sometimes gory ideas to draw children in. Children will love the idea of eating minibeasts for lunch (the alternative BLT containing beetles)! This is a great resource for forward-thinking young minds.

Kathryn Thomason
Science lead and teaching
assistant development lead,
St Anne's R C Primary School,
Manchester

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