



## WIDER READING IN SCIENCE

Reading is an essential skill in the study of Science, be this the activity of learning the fundamentals of the taught curriculum or reading for pleasure. Many scientists attribute their interest in the subject at least in part to the science books they read recreationally when young. It is perhaps surprising then that the active promotion of science reading for pleasure seldom features among the stated aims and objectives of secondary science programmes. We have tried to address this deficit in numerous ways.

We encourage reading in every lesson and spend considerable efforts building pupils confidence with tier 2 and 3 language. We discuss the etymological basis of many of the words used in Science and we build in considerable opportunities to read during lessons.

Each year a wide variety of engaging science books are published, many of which have the power not only to extend knowledge but also to excite the interest and imagination of children and young people. Encouraging pupils to engage with these texts may develop a lifelong reading habit. Our school has a well-stocked library and interesting popular Science books are recommended.

In the classroom pupils will read a range of texts to develop their understanding. These include science textbooks, scientific reports, newspaper articles, materials from scientific websites.

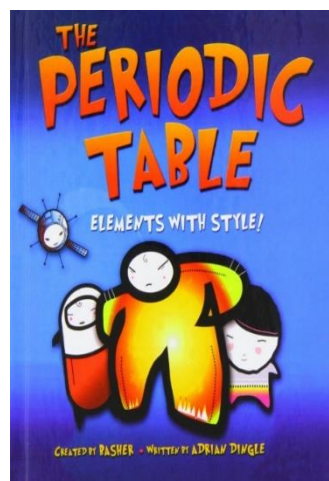
Below are some examples of key reading materials that are used in KS3 and KS4 Science.

	Term 1	Term 2	Term 3
Year 7	Class reading of the laboratory rules. Research using website: 'Cell animations and Education'.	Articles from BBC Science Focus magazines used for guided reading, as part of reading week in Science.	Savannah food web activity, using information to construct a food web. Articles from BBC Science Focus magazines used for guided reading, as part of reading activity in Science.
Year 8	Research using NHS website on deficiency diseases. BBC Climate change article for information. Homework task: Rock types, used for information.	Articles from BBC Science Focus magazines used for guided reading, as part of reading week in Science. Comprehension activity on elements, mixtures and compounds	'The Plague at Eyam', a play script. Articles from BBC Science Focus magazines used for guided reading, as part of reading activity in Science.
Year 9	Oxford publications, 'The Extinction of dinosaur theories', article used for guided reading. 'Dairy Sire' directory used for information. 'The Discovery of DNA' information timeline card sort. Homework task: Writing chemical word equations from information.	Articles from BBC Science Focus magazines used for guided reading, as part of reading week in Science. Comprehension activity, 'Bev and Kev's Big Night Out'. Research using BBC Bitesize on Energy resources. Comprehension activity, 'Human Genome Project'.	Evidence based information: 'Did Man Land on the Moon, or was it faked?'. This activity is then followed by a debate. Articles from BBC Science Focus magazines used for guided reading, as part of reading activity in Science.

Year 10	Information on a car chase that is used to calculate acceleration and draw motion graphs. Research on stem cells and the diseases they treat. Comprehension on stem cells.	Articles from BBC Science Focus magazines used for guided reading, as part of reading week in Science. Gene mutation, guided reading activity.	Research using NHS website on causes, symptoms and treatments of communicable diseases. Information on the life cycle assessment of paper and plastic bags. Articles from BBC Science Focus magazines used for guided reading, as part of reading activity in Science. Information about a child's morning where the pupils then identify parts of EM spectrum.
Year 11	Research on plants that are used for medicines using a variety of scientific websites.	Information timeline on the Evolution of the Earth's atmosphere.	Articles from BBC Science Focus magazines used for guided reading, as part of reading activity in Science.

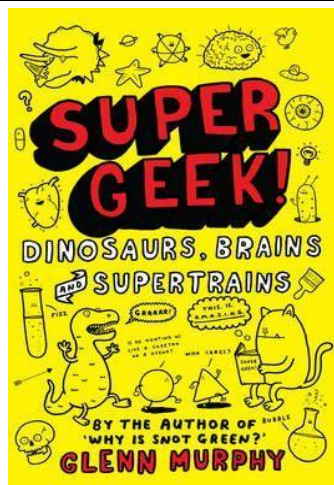
We also have a range of books in the library that we recommend for pupils to read to foster further interest and curiosity in Science:

	<p><b>Horrible Science – Ugly Bugs</b></p> <p>Science with the squishy bits left in! What do slugs do with their slime? Why do flies throw up on your tea? How do insects drink your blood? Get the awful answers in Ugly Bugs!</p>
	<p><b>Pocket Pal – Science Experiments</b></p> <p>Learn how to make fake boogers, grow your own stalactite and even create invisible ink plus many, many more projects!</p>



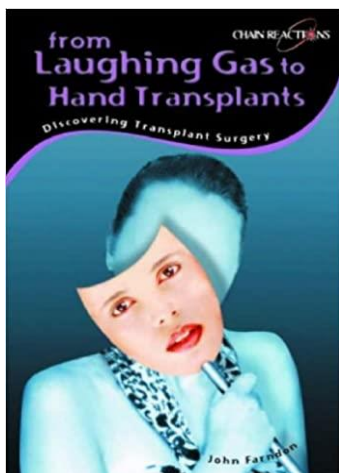
### The Periodic Table – Elements with Style

The Periodic Table introduces budding chemists to the world of the elements as it's never been seen before. Designed to resemble popular networking Web sites, the pages of this book feature "homepages" for each of the chemical elements -- complete with witty and informative profiles written by the elements themselves, plus a personally chosen picture.



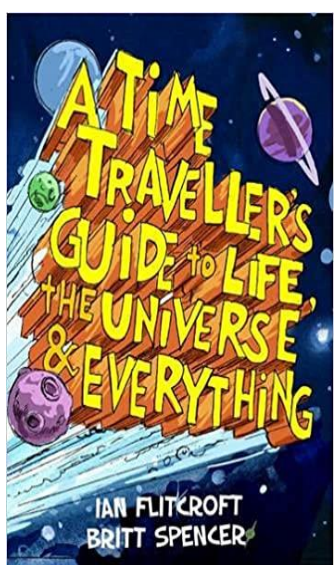
### Super Geek! – Dinosaurs, Brains & Supertrains

Are you a Super Geek? How much do you REALLY know about the science that matters? This book features over 300 fun science questions and answers chosen by Glenn Murphy to test your knowledge. Find out all about dinosaurs and prehistoric life, blood and guts, brains, senses and feelings, weather and climate change, natural disasters, trains, planes and transport, and lots more!



### From Laughing Gas to Hand Transplants

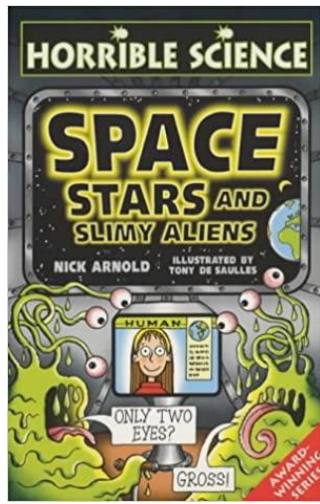
This series looks at developments, inventions and discoveries in science and how a discovery or invention by one individual can lead to a series of discoveries by others and even a chain of scientific breakthroughs. Each book charts a few connected developments in the particular field of science from first discoveries through to current applications.



### A Time Traveller's Guide to Life, the Universe & Everything

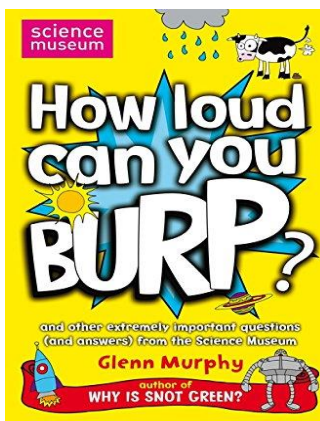
Einstein said his first ideas about relativity came from looking in the mirror and wondering what it would be like to chase after a beam of light. In this graphic novel, he invites us on just such a journey through the universe . . . and beyond.

Along the way, you'll learn about the science behind everything from the origins of the universe to black holes, climate change, evolution vs. intelligent design, and the meaning of life.



### Horrible Science – Space, Stars and Slimy aliens

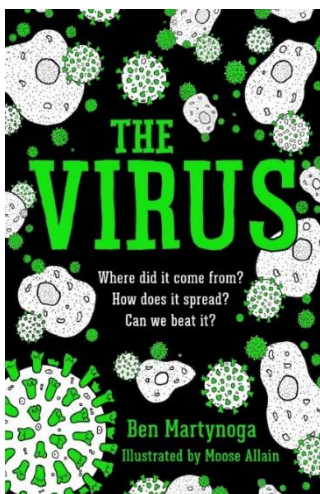
Science with the squishy bits left in. Space, Stars and Slimy Aliens is off on another planet. Are you spaced-out to discover: which astronomers killed people? why space makes the guts explode? What the moon smells like? If you think you can stomach the sick side of Science, then read on as we blast into outer space. Zoom around the planets with Oddblob the alien, find out which galaxies eat each other and see if you've got what it takes to be a staggering stargazer. With fantastic fact files, quirky quizzes and crazy cartoons Space, Stars and Slimy Aliens is out of this world. Science has never been so horrible



### How loud can you burp?

How loud can you burp? Could we use animal poo to make electricity? Why is water wet, and is anything wetter than water? What's the deadliest disease in the world? What are clouds for? What's the difference between a brain and a computer?

This is a wonderfully funny and informative book which helps us take a fresh look at the world (and universe) we live in, with no boring bits and an abundance of fascinating facts!



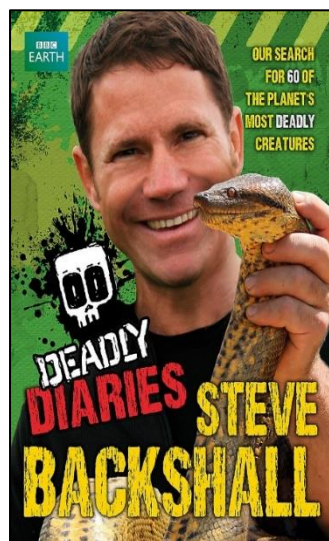
### The Virus

It's 15,000 times smaller than a flea and we can kill it with a bar of soap – so how did a tiny, fragile virus change the world?

Join science expert Dr Ben Martynoga and illustrator extraordinaire Moose Allain on a fascinating, sometimes funny, and occasionally scary journey through the world of viruses.

Explore the science behind viruses and the COVID-19 pandemic in a fascinating story of hijacked human cells and our own internal emergency services.

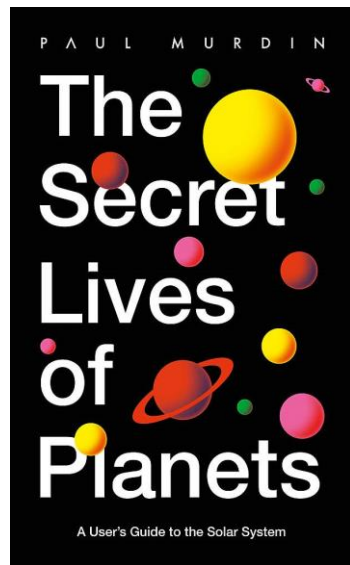
Along the way, you'll learn what viruses are, how they work, and how we can overcome – or at least learn to live alongside – those that do us harm.



### Deadly Diaries

In his first ever DEADLY DIARIES Steve Backshall shares what it means to him to film the world's top predators. Learn how it feels to have a blue whale silently power past you in crystal clear Indian Ocean waters or to dangle beneath a helicopter in order to be dropped onto a crocodile nest while the mother crocodile is still there!

The book covers Steve's travels across six continents in six months as he finds the 60 creatures that are most deadly in their world. 224 pages, packed with 175 colour photos to tie in with the third BBC TV series of DEADLY 60.

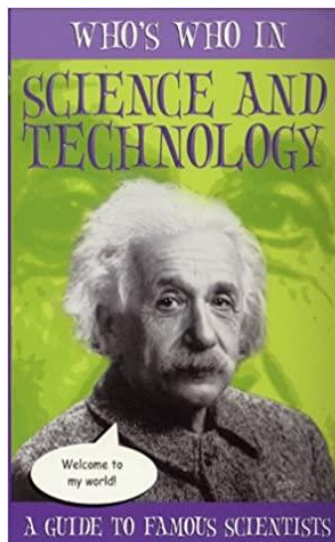


### **The Secret Lives of Planets**

Everyone's been looking up at the night sky this year as we've celebrated 50 years since Neil Armstrong first set foot on the moon.

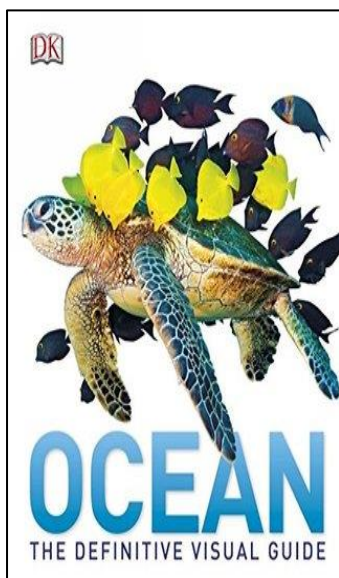
Astronomer Paul Murdin's inside guide will help you learn all about the solar system and its planets and satellites.

It looks at the universe from a longer perspective and reveals how Saturn's moon, Titan, boasts lakes which contain liquid methane surrounded by soaring hills and valleys (exactly as the earth did before life evolved); Mercury is the shyest planet; and that the biggest volcano on Mars is 10 times the depth of the Grand Canyon.



### **Who's Who in Science and Technology**

'Who's Who in Science and Technology' contains biographies of 170 of the most important scientists and inventors from Ancient Greece through to the 20th century. Written in an informal, friendly style, the book provides essential information about their lives. Aimed at children of 8-12 years, the book is easy to use, with cross references, a glossary and an index. The text is interspersed with appealing cartoon-style illustrations.



### **Ocean – The Definitive Visual Guide**

Ocean is illustrated with a blend of beautiful and informative artworks, maps, and photography, it is a broad-ranging, in-depth guide to both physical oceanography and marine life.

Thoroughly updated to include the latest research on ocean science and profiles of newly discovered species, Ocean remains an indispensable, all-encompassing visual guide to the marine world.

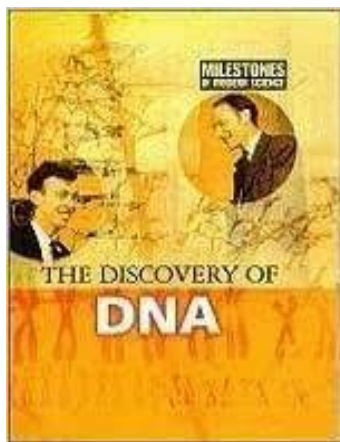
Bill Bryson  
**A REALLY  
SHORT  
HISTORY  
OF NEARLY  
EVERYTHING**

'This most enjoyable of books [A Short History of Nearly Everything is] a travelogue of science, with a witty, engaging, and well-informed guide' The Times

### **A Really Short History of Nearly Everything**

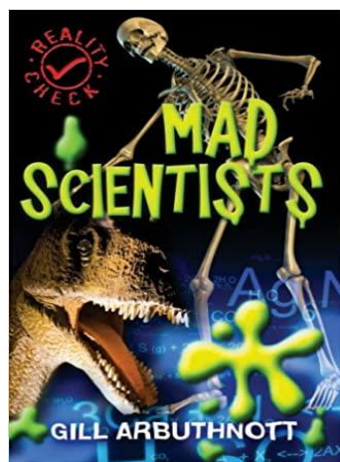
Bill's own fascination with science began with a battered old schoolbook he had when he was about ten or eleven years old in America. It had an illustration that captivated him - a cutaway diagram showing Earth's interior as it would look if you cut into it with a large knife and carefully removed about a quarter of its bulk. And he very clearly remembers thinking: "How do they know that?"

Bill's story-telling skill makes the "How?" and, just as importantly, the "Who?" of scientific discovery entertaining and accessible for all ages. In this exciting edition for younger readers, he covers the wonder and mysteries of time and space, the frequently bizarre and often obsessive scientists and the methods they used, the crackpot theories which held sway for far too long, the extraordinary accidental discoveries which suddenly advanced whole areas of science when the people were actually looking for something else (or in the wrong direction) and the mind-boggling fact that, somehow, the universe exists and, against all odds, life came to be on this wondrous planet we call home.



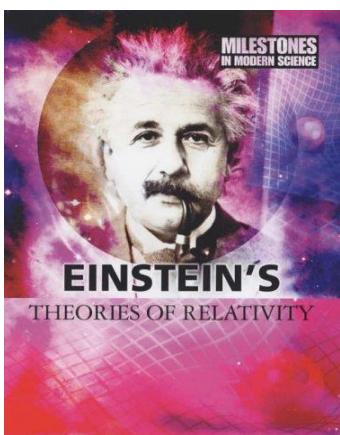
### **The Discovery of DNA**

This fabulous series takes key scientific developments from the last century and investigates how they came about, their creation or discovery, and their long-term effects. Each book places the development in the context of its time, to increase awareness of some of the amazing discoveries that have helped to shape the world today, and the key people behind each of these scientific milestones. "The Discovery of DNA" charts the developments that led to the discovery of the structure of DNA by Watson and Crick in 1953 a revelation which allowed the science of genetics to take off at breakneck speed, advancing our understanding of the make-up of living things beyond recognition.



### **Mad Scientists**

From the man who ate everything, to the cat that's both alive and dead...A hilarious but informative look at some of science's strangest ideas - and thinkers!



### **Einstein's Theories of Relativity**

Einstein's Theories of Relativity looks at the life and times of the man himself and the beliefs about the laws of physics prior to his theories. It explains what relativity is, & how we can understand it in relation to our everyday lives, before investigating in detail the theories of Special and General Relativity. The book goes on to show how these amazing ideas opened up a whole new understanding of universal forces, from the power in the nucleus of an atom to the way massive bodies in space behave.