

## Science

Whatever your age, these recommended reads will complement your study of Science and help you to enjoy wider elements of maths. Ask your Science teacher what they'd recommend for you!

Book	Author	Brief Description	Front Cover
A Short History of Nearly Everything	Bill Bryson	A light-hearted journey through the history of important scientific discoveries	
King Solomon's Ring	Konrad Lorenz	This is a collection of observations of different animals and their behaviour, excellent for anyone wanting to go into zoology or veterinary medicine.	
Horrible sciences, microscopic monsters	Nick Arnold	A funny way to imagine the things you see under the microscope	

Kay's Anatomy	Adam Kay	An illustrated and humorous guide to the human body.	
Why Does Asparagus Make Your Pee Smell?	- Andy Brunning	Guaranteed to satisfy curious minds. And did you know that nutmeg can make you hallucinate? Prepare to be astounded by chemical breakdown like never before.	
Women in Science: 50 Fearless Pioneers who Changed the World	Rachel Ignotofsky	The extraordinary women profiled include well-known figures like the physicist and chemist Marie Curie, as well as lesser-known pioneers such as Katherine Johnson, the African-American mathematician who calculated the trajectory of the Apollo 11 mission to the moon.	
Hidden Figures	Margot Lee Shetterly	Dorothy Vaughan, Mary Jackson, Katherine Johnson, and Christine Darden were good at math...really good.  They participated in some of NASA's greatest successes, like providing the calculations for America's first journeys into space.	

		<p>And they did so during a time when being black and a woman limited what they could do. But they worked hard. They persisted. And they used their genius minds to change the world.</p>	
<p><b>The Hitchhikers Guide to the Galaxy</b></p>	<p>Douglas Adams</p>	<p>It's an ordinary Thursday lunchtime for Arthur Dent until his house gets demolished. The Earth follows shortly afterwards to make way for a new hyperspace express route, and his best friend has just announced that he's an alien. At this moment, they're hurtling through space with nothing but their towels and an innocuous-looking book inscribed, in large friendly letters, with the words: DON'T PANIC.</p> <p>The weekend has only just begun . . .</p>	
<p><b>The Science Book</b></p>	<p>DK Books</p>	<p>What is string theory or black holes? And who discovered gravity and radiation? The Science Book presents the fascinating story behind these and other of the world's most important concepts in maths, chemistry, physics and biology in plain English, with easy to grasp "mind maps"</p>	

		and eye-catching artworks	
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## Key Stage 4

Book	Author	Brief Description	Front Cover
Frankenstein	Mary Shelley	The first science fiction novel. If you push the limits of science and morality, what could possibly go wrong?	
The Martian: Young Readers Edition	Andy Weir	Six days ago, astronaut Mark Watney became one of the first people to walk on Mars.  Now, he's sure he'll be the first person to die there.	
The Family That Couldn't Sleep	D.T. Max	This is a medical mystery about a noble venetian family. The book is based on interviews with the family and research into the family disorder, good introduction to the concept of prions.	
What If?: Serious Scientific Answer to Absurd Hypothetical Questions: Serious Scientific Answers to Absurd Hypothetical Questions	Randall Munroe	Serious scientific answers to absurd hypothetical questions	



How To: Absurd Scientific Advice for Common Real-World Problems from Randall Munroe	Randall Munroe	It's full of highly impractical advice for everything from landing a plane to digging a hole.	
The Oxford Book of Modern Science Writing	Selected and introduced by Richard Dawkins	The Oxford Book of Modern Science Writing is a celebration of the finest writing by scientists for a wider audience - revealing that many of the best scientists have displayed as much imagination and skill with the pen as they have in the laboratory.	
The Periodic Table	Primo Levi	Primo Levi's The Periodic Table is a collection of short stories that elegantly interlace the author's experiences in Fascist Italy, and later in Auschwitz, with his passion for scientific knowledge and discovery.	
Do No Harm: Stories of Life, Death and Brain Surgery	Henry Marsh	DO NO HARM offers an unforgettable insight into the highs and lows of a life dedicated to operating on the human brain, in all its exquisite complexity.	

<p><b>Why Do Penguins Feet Freeze?</b></p>	<p>New Scientist</p>	<p>Ever wondered why we have fingerprints? Or whether bumblebees really defy the laws of physics when they fly? And why are eggs egg-shaped? And dogs' noses black? Why do our eyes water when we cut onions? Why doesn't superglue stick to the inside of its tube?</p>	
<p><b>The Secret Science of Superheroes</b></p>	<p>Mark Lorch and Andy Miah</p>	<p>The concept of the superhero has permeated our culture. They fascinate their fans with their incredible superhuman abilities and impressive technology. But do you ever wonder if any of it is plausible or rooted in fact?</p>	
<p><b>The Mould in Dr Florey's Coat: The Remarkable True Story of the Penicillin Miracle</b></p>	<p>Eric Lax</p>	<p>Many people know that in 1928 Alexander Fleming discovered penicillin's antibiotic potential while examining a stray mould that had bloomed in a dish of bacteria in his London laboratory. But few realise that Fleming worked only fitfully on penicillin until 1935, and that he is merely one character in the remarkable story of the antibiotic's development as a drug.</p>	

## Key Stage 5

Book	Author	Brief Description	Front Cover
Bad Science	Ben Goldacre	Debunking some common myths and exploring how poor scientific practice leads to public panic and misunderstanding	
Junk DNA	Nessa Carey	This is a follow on book from the epigenetics revolution, this time Nessa focusses on the junk regions of our DNA and their significance for disease, aging and viral infections. Very accessible if you want to know more about genetics at a higher level.	
Sapiens: A Brief History of Humankind	Yuval Noah Harari	Explores the human species – who we are, how we got here and where we're going.	
What is Life?: How Chemistry Becomes Biology	Addy Pross	Seventy years ago, Erwin Schrödinger posed a profound question: 'What is life, and how did it emerge from non-life?' This problem has puzzled biologists and physical scientists ever since.	

Y: The Descent of Men	Steve Jones	What is the point of being a man? For a brief and essential instant he is a donor of DNA; but outside that moment his role is hard to understand.	
The Lives of a Cell: Notes of a Biology Watcher	Lewis Thomas	Elegant, suggestive, and clarifying, Lewis Thomas's profoundly humane vision explores the world around us and examines the complex interdependence of all things.	
The Man Who Mistook His Wife For A Hat	Oliver Sacks	In this extraordinary book, Dr. Oliver Sacks recounts the stories of patients struggling to adapt to often bizarre worlds of neurological disorder.	
What a Plant Knows	Daniel Chamovitz	How does a Venus flytrap know when to snap shut? Can an orchid get jet lag? Does a tomato plant feel pain when you pluck a fruit from its vines? And does your favourite fern care whether you play Bach or the Beatles?	



Periodic Tales	Hugh Aldersey-Williams	Here you'll meet iron that rains from the heavens. You'll learn how lead can tell your future while zinc may one day line your coffin. You'll discover what connects the bones in your body with the Whitehouse in Washington, the glow of a streetlamp with the salt on your dinner table.	
The Disappearing Spoon	Sam Kean	The fascinating tales in The Disappearing Spoon follow carbon, neon, silicon, gold and every single element on the table as they play out their parts in human history, finance, mythology, conflict, the arts, medicine and the lives of the (frequently) mad scientists who discovered them.	
Uncle Tungsten	Oliver Sacks	Oliver Sacks evokes, with warmth and wit, his upbringing in wartime England. He tells of the large science-steeped family who fostered his early fascination with chemistry. There follow his years at boarding school where, though unhappy, he developed the intellectual curiosity that would shape his later life. And we hear of his return to London, an emotionally bereft ten-year-old who found solace in his passion for learning.	

<p><b>The Shocking History of Phosphorus</b></p>	<p>John Emsley</p>	<p>Born of the age of alchemy and harbouring the kind of mysterious influence that alchemists sought, phosphorus brought wealth to a few but misery to many. For over 300 years, phosphorus maimed, killed, polluted and burned - sometimes on a terrifying scale. Yet, such were its perceived benefits that doctors prescribed it, every home contained it and whole industries were dedicated to its manufacture</p>	
<p><b>Physics of the Future</b></p>	<p>Michio Kaku</p>	<p>We all wish we could predict the future, but most of us don't know enough about the science that makes it possible. That's why Michio Kaku decided to talk to the people who really know - the visionaries who are already inventing the future in their labs.</p>	
<p><b>Physics of the Impossible</b></p>	<p>Michio Kaku</p>	<p>Michio Kaku, bestselling science author and one of the world's most acclaimed physicists, looks at the technologies of the future and explains what's just around the corner, what we might have to wait a few millennia to get our hands on and how surprisingly little of it is truly impossible.</p>	

Parallel Worlds	Michio Kaku	Imagine a future where we are not alone - where our universe is just one of countless parallel worlds, some strangely familiar, some almost unimaginable.	
Six Easy Pieces	Richard Feynman	Feynman introduces the reader to the following topics: atoms, basic physics, energy, gravitation, quantum mechanics, and the relationship of physics to other topics.	
Surely You're Joking Mr Feynman	Ralph Leighton	Over a period of years, Feynman's conversations with his friend Ralph Leighton were first taped and then set down as they appear here, little changed from their spoken form, giving a wise, funny, passionate and totally honest self-portrait of one of the greatest men of our age.	
The Pleasure of Finding Things Out	Freeman Dyson and Richard Feynman	A magnificent treasury of the best short works of Richard P. Feynman, from interviews and speeches to lectures and printed articles.	

Six Not-So-Easy Pieces	Matthew Sands, Richard Feynman	Trying to understand important concepts like relativity? You will find this fascinating.	
The Elegant Universe	Brian Greene	In layman's terms, a comprehensive demystification of string theory.	
The Fabric of the Cosmos	Brian Greene	What is reality? Could we exist without space and time? Can we travel to the past? What are the limits of the universe?	
How to Teach Quantum Physics to Your Dog	Chad Orzel	Emmy is no ordinary dog. When adopted from the shelter by physics professor Chad Orzel, she becomes immediately fascinated by his work. Could she use quantum tunnelling to get through the neighbour's fence? How about diffracting round a tree to chase squirrels? Or using virtual particles to catch bunnies made of cheese?	