Wider Reading Examples

Science

The Brain by David Eagleman

Join renowned neuroscientist David Eagleman on a whistle-stop tour of the inner cosmos. It's a journey that will take you into the world of extreme sports, criminal justice, genocide, brain surgery, robotics and the search for immortality. On the way, amidst the infinitely dense tangle of brain cells and their trillions of connections, something emerges that you might not have expected to see: you.





Hidden Figures by Margot Lee Shetterly

Set amid the civil rights movement, the never-before-told true story of NASA's African-American female mathematicians who played a crucial role in America's space program.

Before Neil Armstrong walked on the moon, a group of professionals worked as 'Human Computers', calculating the flight paths that would enable these historic achievements. Among these were a coterie of bright, talented African-American women. Segregated from their white counterparts, these 'coloured computers' used pencil and paper to write the equations that would launch rockets, and astronauts, into space.

Moving from World War II through NASA's golden age, touching on the civil rights era, the Space Race, the Cold War, and the women's rights movement, Hidden Figures interweaves a rich history of mankind's greatest adventure with the intimate stories of five courageous women whose work forever changed the world.

The Disappearing Spoon by Sam Kean

The periodic table is one of our crowning scientific achievements, but it's also a treasure trove of passion, adventure, betrayal and obsession. 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.





A Short History of Nearly Everything by Bill Bryson

Of the billions and billions of species of living things that have existed since the dawn of time, most - 99.9% it has been suggested - are no longer around. Life on Earth, you see is not only brief, but dismayingly tenuous.

Bill Bryson describes himself as a reluctant traveller, but even when he stays safely at home he can't contain his curiosity about the world around him.

A Short History of Nearly Everything is his quest to understand everything that has happened from the Big Bang to the rise of civilization - how we got from there, being nothing at all, to here, being us.

The Body by Bill Bryson

<u>Bill Bryson</u> sets off to explore the human body, how it functions and its remarkable ability to heal itself. Full of extraordinary facts and astonishing stories The Body: A Guide for Occupants is a brilliant, often very funny attempt to understand the miracle of our physical and neurological make up





The End of Everything (Astrophysically Speaking) by Katie Mack

From one of the most dynamic rising stars in astrophysics, an eye-opening look at five ways the universe could end, and the mind-blowing lessons each scenario reveals about the most important ideas in cosmology

We know the universe had a beginning. But what happens at the end of the story?

With lively wit and wry humour, astrophysicist Katie Mack takes us on a mind-bending tour through each of the cosmos' possible finales: the Big Crunch, Heat Death, Vacuum Decay, the Big Rip and the Bounce. Guiding us through major concepts in quantum mechanics, cosmology, string theory and much more, she describes how small tweaks to our incomplete understanding of reality can result in starkly different futures. Our universe could collapse in upon itself, or rip itself apart, or even - in the next five minutes - succumb to an inescapable expanding bubble of doom.

Bad Science by Ben Goldacre

Since 2003 Dr Ben Goldacre has been exposing dodgy medical data in his popular Guardian column. In this eye-opening book he takes on the MMR hoax and misleading cosmetics ads, acupuncture and homeopathy, vitamins and mankind's vexed relationship with all manner of 'toxins'. Along the way, the self-confessed 'Johnny Ball cum Witchfinder General' performs a successful detox on a Barbie doll, sees his dead cat become a certified nutritionist and probes the supposed medical qualifications of 'Dr' Gillian McKeith.

Full spleen and satire, Ben Goldacre takes us on a hilarious, invigorating and ultimately alarming journey through the bad science we are fed daily by hacks and quacks.





The Double Helix ; A personal Account of The Discovery of the Structure of DNA by James D. Watson

By elucidating the structure of DNA, the molecule underlying all life, Francis Crick and James Watson revolutionised biochemistry. At the time, Watson was only 24. His uncompromisingly honest account of those heady days lifts the lid on the real world of great scientists, with their very human faults and foibles, their petty rivalries and driving ambition. Above all, he captures the extraordinary excitement of their desperate efforts to beat their rivals at King's College to the solution to one of the great enigmas of the life sciences.

Periodic Tales ; The Curious Lives of the Elements

by Hugh Aldersey-Williams

Everything in the universe is made of them, including you. Like you, the elements have personalities, attitudes, talents, shortcomings, stories rich with meaning.

Here you'll meet iron that rains from the heavens and noble gases that light the way to vice. 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.

Unlocking their astonishing secrets and colourful pasts, Periodic Tales is a voyage of wonder and discovery, showing that their stories are inextricable from the stories of our own lives.





Unlocking the Universe by Stephen and Lucy Hawking

Have you ever wondered how our universe began?

Or what it takes to put humans on the moon? Do you know what happens in the microscopic world of a life-saving vaccine? What would you do if you could travel through space and time?

Embark on the adventure of a lifetime in this beautiful collection of up-to-the-minute essays, mind-blowing facts and out-of-this-world colour photographs, by the world's leading scientists including Professor Stephen Hawking himself.

Storm in a Teacup ; The Physics of Everyday Life by Helen Czerski

Our world is full of patterns. If you pour milk into your tea and give it a stir, you'll see a swirl, a spiral of two fluids, before the two liquids mix completely. The same pattern is found elsewhere too. Look down on the Earth from space, and you'll find similar swirls in the clouds, made where warm air and cold air waltz.

In Storm in a Teacup, Helen Czerski links the little things we see every day with the big world we live in. Each chapter begins with something small - popcorn, coffee stains and refrigerator magnets - and uses it to explain some of the most important science and technology of our time.

This is physics as the toolbox of science - a toolbox we need in order to make sense of what is around us and arrive at decisions about the future, from medical advances to solving our future energy needs.

It is also physics as the toy box of science: physics as fun, as never before.



Thing Explainer ; Complicated Stuff in Simple Words by Randall Munroe

It's good to know what the parts of a thing are called, but it's much more interesting to know what they do. Richard Feynman once said that if you can't explain something to a first-year student, you don't really get it. In Thing Explainer, Randall Munroe takes a quantum leap past this: he explains things using only drawings and a vocabulary of just our 1,000 (or the ten hundred) most common words. Where do these things come from? How do they work? What do they look like if you open them up? And what would happen if we heated them up, cooled them down, pointed them in a different direction, or pressed this button?

In Thing Explainer, Munroe gives us the answers to these questions and many, many more. Funny, interesting, and always understandable, this book is for anyone -- age 5 to 105 -- who has ever wondered how things work, and why.

