

Lower School Biology Reading List

Ecology and Conservation	Wilding: The Return of Nature to a British Farm	Isabella Tree	Forced to accept that intensive farming on the heavy clay of their land at Knepp was economically unsustainable, Isabella Tree and her husband Charlie Burrell made a spectacular leap of faith: they decided to step back and let nature take over. Thanks to the introduction of free-roaming cattle, ponies, pigs and deer – proxies of the large animals that once roamed Britain – the 3,500 acre project has seen extraordinary increases in wildlife numbers and diversity in little over a decade.	
Evolution	The Third Chimpanzee: On the Evolution and Future of the Human Animal	Jared Diamond	Not only is The Third Chimpanzee a mind-boggling survey of how we came to be, but it is also a plea to the next generation to "make better decisions than their parents and get us out of the mess we're in."	
Genetics	Herding Hemingway's Cats: Understanding How our Genes Work	Kat Arney	The language of genes has become common parlance. We know they make your eyes blue, your hair curly or your nose straight. The media tells us that our genes control the risk of cancer, heart disease, alcoholism or Alzheimer's. The cost of DNA sequencing has plummeted from billions of pounds to a few hundred, and gene-based advances in medicine hold huge promise. So we've all heard of genes, but how do they actually work?	
Medicine	This is Going to Hurt: Secret Diaries of a Junior Doctor	Adam Kay	Welcome to the life of a junior doctor: 97-hour weeks, life and death decisions, a constant tsunami of bodily fluids, and the hospital parking meter earns more than you. Scribbled in secret after endless days, sleepless nights and missed weekends, Adam Kay's This is Going to Hurt provides a no-holds-barred account of his time on the NHS front line. Hilarious, horrifying and heartbreaking, this diary is everything you wanted to know – and more than a few things you didn't – about life on and off the hospital ward.	
Popular Science	A Short History of Nearly Everything	Bill Bryson	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. Bill Bryson's challenge is to take subjects that normally bore the pants off most of us, like geology, chemistry and particle physics, and see if there isn't some way to render them comprehensible to people who have never thought they could be interested in science.	
Popular Science	Bad Science	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.	
Popular Science	Does Anything Eat Wasps?	New Scientist	Every year, readers send in thousands of questions to New Scientist, the world's best-selling science weekly, in the hope that the answers to them will be given in the 'Last Word' column - regularly voted the most popular section of the magazine. Does Anything Eat Wasps? is a collection of the best that have appeared, including: Why can't we eat green potatoes? Why do airliners suddenly plummet? Does a compass work in space? Why do all the local dogs howl at emergency sirens? How can a tree grow out of a chimney stack? Why do bruises go through a range of colours? Why is the sea blue inside caves? Many seemingly simple questions are actually very complex to answer.	
Popular Science	Kay's Anatomy: A Complete (And Completely Disgusting) Guide to the Human Body	Adam Kay	Do you ever think about your body and how it all works? Like really properly think about it? The human body is extraordinary and fascinating and, well . . . pretty weird. Yours is weird, mine is weird, your maths teacher's is even weirder. This book is going to tell you what's actually going on in there, and answer the really important questions, like: Are bogeys safe to eat? Look, if your nose is going to all that effort of creating a snack, the least we can do is check out its nutritional value. (Yes, they're safe. Chew away!)	
Popular Science	Moths That Drink Elephants' Tears	Matt Walker	The first professionally researched miscellany guide to the animal kingdom, packed with fascinating and bizarre facts. Did you know that the male flour beetle is the only animal which can mate and impregnate a female he has never met? That virgin male butterflies make better lovers than more experienced ones? Or that rats can learn the difference between Dutch and Japanese? Moths that Drink Elephants' Tears is an entertaining and addictive collection of eclectic insights and unusual facts, detailing the wondrous diversity of animal life that surrounds us.	
Popular Science	Why Can't Elephants Jump?	New Scientist	Well, why not? Is it because elephants are too large or heavy (after all, they say hippos and rhinos can play hopscotch)? Or is it because their knees face the wrong way? Or do they just wait until no one's looking? Read this brilliant new compilation to find out.	

Popular Science	Why Don't Penguins' Feet Freeze?	New Scientist	Why Don't Penguins' Feet Freeze? is the latest compilation of readers' answers to the questions in the 'Last Word' column of New Scientist, the world's best-selling science weekly. Following the phenomenal success of Does Anything Eat Wasps? - the Christmas 2005 surprise bestseller - this new collection includes recent answers never before published in book form, and also old favourites from the column's early days.	
Science and Society	Girls Who Looked Under Rocks: The Lives of Six Pioneering Naturalists	Jeannine Atkins	Girls Who Looked Under Rocks: The Lives of Six Pioneering Naturalists is for a world no longer confined by gender stereotypes, and a place where science is for girls, too! Parents and children will love this portrayal of six women who grew up playing in the dirt and went on to become award winning scientists and writers. All of these women were discouraged from pursuing careers in science, but they all persisted in their passion.	
Science and Society	The Immortal Life of Henrietta Lacks	Rebecca Skloot	Her name was Henrietta Lacks, but scientists know her as HeLa. Born a poor black tobacco farmer, her cancer cells – taken without her knowledge – became a multimillion-dollar industry and one of the most important tools in medicine. Yet Henrietta's family did not learn of her 'immortality' until more than twenty years after her death, with devastating consequences. Rebecca Skloot's fascinating account is the story of the life, and afterlife, of one woman who changed the medical world for ever. Balancing the beauty and drama of scientific discovery with dark questions about who owns the stuff our bodies are made of, The Immortal Life of Henrietta Lacks is an extraordinary journey in search of the soul and story of a real woman, whose cells live on today in all four corners of the world.	
Science and Society	The Secret Race: Inside the Hidden World of the Tour de France	Tyler Hamilton	On a fateful night in 2009, Tyler Hamilton and Daniel Coyle met for dinner in Boulder, Colorado. Over the next eighteen months, Hamilton would tell Coyle his story, and his sport's story, in explosive detail, never sparing himself in the process. In a way, he became as obsessed with telling the truth as he had been with winning the Tour de France just a few years before. The truth would set Tyler free, but would also be the most damning indictment yet of teammates like Lance Armstrong.	
Veterinary Medicine	How Animals Saved My Life: Being the Supervet	Noel Fitzpatrick	It has been 30 years since Noel Fitzpatrick graduated as a veterinary surgeon, and that 22-year-old from Ballyfin, Ireland, is now one of the leading veterinary surgeons in the world. The journey to that point has seen Noel treat thousands of animals - many of whom were thought to be beyond help - animals that have changed his life, and the lives of those around them, for the better.	