

Reading beyond the classroom

Science, Years 7 – 9.

BYRCHALL
HIGH SCHOOL

While in Years 7, 8, and 9 students should try and read a wide variety of books. The more students read then the more they understand about biology, chemistry and physics. Students should read to solve a problem, understand the steps in an experiment, gain base knowledge about a concept, answer their own questions, compare their inquiry results with what others have found, expand their basic understanding of a concept, and for enjoyment.

There are a number of high-quality websites:

<https://arstechnica.com/>

<https://www.atlasobscura.com/>

https://www.bbc.co.uk/news/science_and_environment

<https://www.chemistryworld.com/>

<https://futurism.com/>

<https://www.gizmodo.co.uk/>

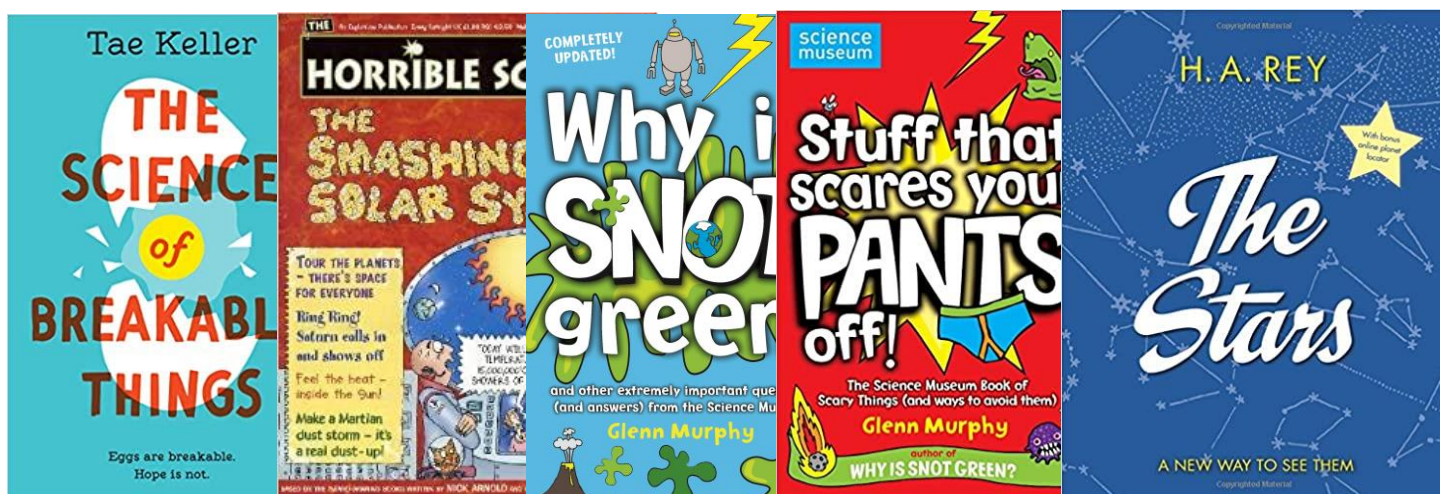
<https://www.npr.org/sections/science/?t=1592912516057>

<https://www.smithsonianmag.com/>

<https://www.space.com/>

<https://www.theguardian.com/science>

In addition to this, our recommendations follow below. These texts do not form part of our schemes of work so reading them will not spoil students' enjoyment of future lessons. They will most likely complement the work we do.



Lower school

Tae Keller

The Science of Breakable Things

When Natalie's science teacher suggests that she enter an egg drop competition, Natalie thinks that this might be the perfect solution to all of her problems. There's prize money, and if she and her friends win, then she can fly her botanist mother to see the miraculous Cobalt Blue Orchids--flowers that survive against impossible odds. Natalie's mother has been suffering from depression, and Natalie is sure that the flowers' magic will inspire her mom to love life again. Which means it's time for Natalie's friends to step up and show her that talking about a problem is like taking a plant out of a dark cupboard and giving it light. With their help, Natalie begins an uplifting journey to discover the science of hope, love, and miracles.

Richard Hammond

Car Science

Top Gear's Richard Hammond peers under the bonnet of the world's top supercars to find out how cars work in this turbo-charged children's science book. Discover the fast and furious physics going on inside every car, from G-force and horsepower to acceleration, inertia, and friction. Help your

child discover all about the science in this explosive tour of their favourite dream cars. Find out how cars revolutionised the world, see how a car functions with jaw-dropping diagrams, cutaway drawings and cool graphics. Steer to the fundamental science behind the mechanics and then sit back for an exciting look into the future of minimal emissions, maximum fun.

Charlotte Jones

Mistakes that Worked

The greatest discoveries are made outside the classroom! Learn all about mistakes that changed the world with this collection of the strange stories behind everyday inventions! It's no accident that you'll love this book!

Bruce Malnor and Carol Malnor

Earth Heroes: Champions of the Wilderness

This book, written for young readers, chronicles the lives of eight conservation heroes that have made significant contributions to wilderness. The authors preface the book by promising that you will feel less like you are reading a history book and more like you are meeting friends as you read the short bios. They stay true to that promise, highlighting not only the achievements, but the personalities of conservation greats such as John Muir, Aldo Leopold, and Teddy Roosevelt. Especially useful is the comparative timeline at the end of each chapter, showing significant points along each hero's lifespan in comparison to other major environmental and pop culture milestones happening in the world.

Bill Nye

Consider the Following

Bill Nye is hot because he makes science so cool. Based on a segment of the wildly popular syndicated TV series Disney Presents Bill Nye the Science Guy, this entertaining nonfiction book poses more than 50 intriguing science-based questions and then takes readers through fun-filled experiments to find the answers and explanations.

Nick Arnold and Phil Gates

Horrible Science Collection

Horrible Science Collection, 20 Books Set. Another fantastic set of books which will have you laughing out loud as you learn about all the weird and whacky facts.

Nick Arnold

Ugly Bugs

This book lifts up the stone on the creepy-crawly world of insects. You don't have to go very far to find them. Pick up any stone, look into any corner, and a hideous creepy-crawly thing is bound to squirm out! Huge hairy spiders! Wriggly centipedes! Slimy slugs and snails!

Nick Arnold

Chemical Chaos

The part that's most likely to make you say "UGH." Chemistry can cause chaos in your brain. Even your teacher knows it! But let's forget the fiendish formulas for now, and take a look at the nasty bits you REALLY want to know about – the nasty bubbling green mixtures, the vile and poisonous potions, the horrible smells, bangs and blasts.

Nick Arnold

Nasty Nature

All the animals in HORRIBLE SCIENCE: NASTY NATURE are the deadliest, most disgusting and nastiest things that nature has to offer! So only read on if you're ready to find out: how vampire bats slurp blood, what a singing gorilla sounds like, how to dodge a man-eating tiger and which Japanese fish dish can kill you.

Nick Arnold

Fatal Forces

This is packed with the most amazing things the science of physics has to offer. Readers can find out how gravity can make them lose their heads, how they can get walloped by a lamp-post, what can make fillings explode and how to reach terminal velocity. Eeek!

Nick Arnold

Blood, Bones and Body Bits

This is a bone-chilling book of bodies to make kids squeal! Peek inside to discover all the squishy secrets of your body — including the nasty bits nobody wants to tell you! Find out what happens when a boil bursts. See what lives in your eyelashes. Gulp at the workings of your disgusting

digestion. And discover why corpses need haircuts even after they're dead. This book of squishy, squelchy and amazing things lets children get the inside story on their insides — if they dare!

Nick Arnold

Sounds Dreadful

If you think you can stomach the sick side of science, then read on. Find out how sound waves make your ear drums tremble, and why you might get a nose bleed listening to church bells!

Nick Arnold

Disgusting Digestion

This book takes you on a no-holds barred tour of the digestion process. Before journey's end, kids will have explored everything from salivary glands to bladders to stomach ulcers.

Nick Arnold

Shocking Electricity

This is packed with sizzling zap-filled facts to electrify every reader. Children can find out about the scientist who gave electric shocks to his eyeballs, that lightning can strike you with heat five times hotter than the sun and much more!

Nick Arnold

Bulging Brains

Bulging Brains is full of the most squishing, gooey and stinky facts about the human brain! It looks like a huge grey bogey or something you'd step in by mistake - but your incredible brain holds all your knowledge, dreams and feelings.

Nick Arnold

Frightening Light

Science with the squishy bits left it! Switch on your brain with Frightening Light! Are you burning to know...what keeps your eyeballs from falling out? why dead bodies can make ghostly glowing lights? how a laser beam can sizzle human flesh?

Randall Munroe

What If?

Randall Munroe left NASA in 2005 to start up his hugely popular site XKCD 'a web comic of romance, sarcasm, math and language' which offers a witty take on the world of science and geeks. It now has 600,000 to a million page hits daily. Every now and then, Munroe would get emails asking him to arbitrate a science debate. In pursuit of answers, Munroe runs computer simulations, pores over stacks of declassified military research memos, solves differential equations, and consults with nuclear reactor operators. His responses are masterpieces of clarity and hilarity, studded with memorable cartoons and infographics. They often predict the complete annihilation of humankind, or at least a really big explosion.

Glenn Murphy

Why is Snot Green?

Prepare to laugh and learn! Scientific answers to mysteries kids really want to know. Sure a lot of kids want to grow up to be astronauts, but according to scientist Glenn Murphy, even MORE kids want to know what happens to astronaut farts. (Short answer: Not good things!) And they want to know: Why don't all fish die from lightening storms? Why haven't we all been sucked into a black hole? Do animals talk? Told in a back-and-forth conversational style, "Why is Snot Green?" presents science just the way kids want to learn it--with lots of laughter.

H. A Rey

The Stars: A New Way to See Them

This book contains the most lucid explanation of the sidereal day I have ever read. If you are looking for a book that explains the big bang theory and modern astronomical theories, this is not your book. If you are want to look up at the sky and recognize stars like old friends, then this is your book.

Along the way, you will learn enough about the relative motions of the earth, sun, planets and stars to understand why different parts of the sky are visible at different times of the year, and from various places on earth.

Glenn Murphy

Stuff That Scares Your Pants Off

Beginning with a gripping description of the worst-case scenarios we've all heard on the news, expert explainer Glenn Murphy explains the science behind our terror and delivers a reassuring message that life is only as scary as we make it!

'The important thing is to never stop questioning.'

Albert Einstein (Scientist)