# Key Stage 3 and Key Stage 4

(\* = KS4 only)

### Read

Hidden Figures: The true story of four black women and the space race – Margot Lee Shetterly

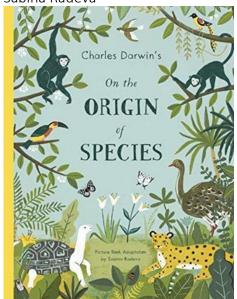


Dorothy Vaughan, Mary Jackson, Katherine Johnson, and Christine Darden were good at math...*really* good.

They participated in some of NASA's greatest successes, like providing the calculations for America's first journeys into space. 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.

In this illustrated picture book edition, we explore the story of four female African American mathematicians at NASA, known as "coloured computers," and how they overcame gender and racial barriers to succeed in a highly challenging STEM-based career.

On the origin of species – retold by Sabina Radeva

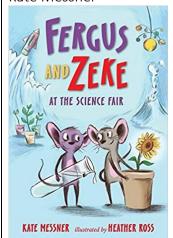


For most of human history, people believed that everything in the world was created at once. But scientists started to challenge that idea and in 1859 Charles Darwin, a naturalist and biologist, wrote a famous book called *On the Origin of Species* that revolutionised the way that we have understood evolution ever since.

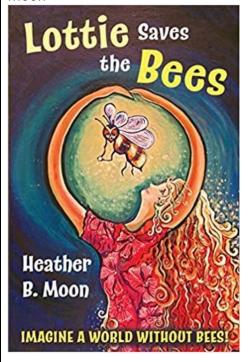
Now molecular biologist and illustrator Sabina Radeva has recreated Darwin's most famous work as a beautifully illustrated book. The stunning pictures bring the theory of evolution to life for young readers, and anyone who wants to learn about evolution.

Pulling together Darwin's observations from his travels around the world and his ground-breaking explanation of how species form, develop, and change over hundreds of thousands of years, *On The Origin of Species* is as relevant and important now as it ever was.

# Fergus and Zeke at the Science Fair – Kate Messner



**Lottie Saves the Bees** – Heather B. Moon



Fergus and Zeke love being the class pets in Miss Maxwell's classroom, and they do everything the students do -- listening at Storytime, painting masterpieces during art class, and keeping their own special journals. But when it's time for the school science fair, the mice aren't sure just how to get involved. Lucy wants to time them as they run through a maze, but they want to do an experiment, not be an experiment. Then Zeke comes up with a great idea: since Lucy is training animals for her experiment, maybe he and Fergus can do the same thing! Unfortunately, the only animals available are the students themselves. Can Fergus and Zeke turn the tables and train Lucy in time for the science fair?

An electrifying, children's illustrated adventure story with a sprinkling of mystery.

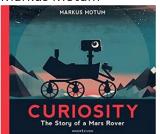
Lottie Saves the Bees takes the young reader on an imaginative journey throughout Europe. Heather B. Moon weaves fun and friendship with a passion for caring for the environment. Absolutely perfect for fans of Jacqueline Wilson.

Professor Molly O'Hara has a bizarre dream. It's important that she meets Lottie under the gigantic glass domes of the Eden project in Cornwall. It is here that twelve-year-old Lottie Lovall discovers The Secret Bee Project. She must follow the clues and solve the riddles which lead to the only solution to the devastating problem.

It's a scary fact that if the world's bee population dies, eventually all living things may die. Lottie has only seven days to save the bees. Can she master her newly learned detective skills before the bee population is destroyed for ever?

Unlock the magical adventure now.

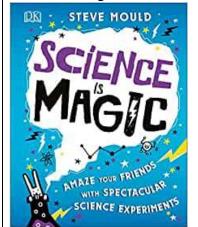
Curiosity: The story of a Mars Rover – Markus Motum



Discover the incredible story of the search for life on Mars, told from the unique perspective of Curiosity, the Mars Rover sent to explore the red planet.

Markus Motum's stylish illustrations and diagrams reveal how a robot travelled 350,000,000 miles to explore a planet where no human has ever been.

Science is Magic – Steve Mould



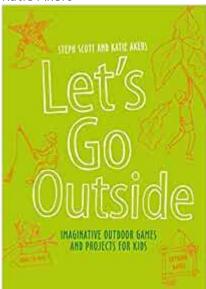
Think magic is just an illusion? Think again...
Discover science – real magic at your fingertips.
Join bestselling author Steve Mould to find out the scientific secrets behind amazing tricks. Bend water with a balloon, learn the art of levitation, and make glass disappear. Packed with tricks, optical illusions and fascinating facts, this book is a must-have for scientists and magicians alike.

The wild weather book – Fiona Danks and Jo Schofield



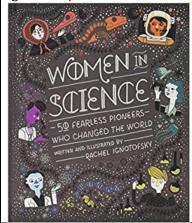
When it's wet, or windy or cold, there is no need to stay cooped up indoors: it's a great opportunity to rush outside for some fun. So don't wait for the sun: take this book with you and go outdoors for a wild weather adventure.

**Let's go outside** – Steph Scott and Katie Akers



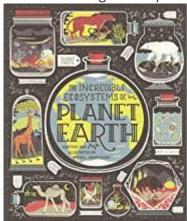
Get the most from the outdoors whatever the weather. With just a few essentials in your backpack and a little help from nature you can make, do and play any of the activities in this book.

# Women in science – Rachel Ignotofsky



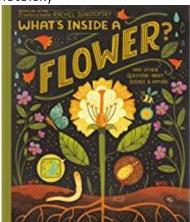
A gloriously illustrated celebration of trailblazing women. Women in Science highlights the contributions of fifty notable women to the STEM fields of science, technology, engineering and mathematics, from both the ancient and modern worlds.

# The incredible ecosystems of Planet Earth – Rachel Ignotofsky



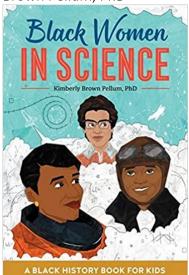
An illustrated tour of our planets ecosystems both large and small, from reefs, deserts and rainforests to a single drop of water.

# What's inside a flower? – Rachel Ignotofsky



Budding backyard scientists can start exploring their world with this stunning introduction to these flowery show-stoppers, from seeds to roots to blooms. Learning how flowers grow gives kids beautiful building blocks of science and inquiry.

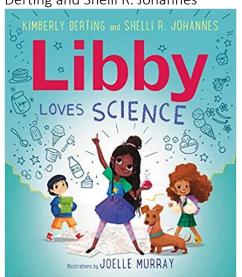
# **Black women in science** – Kimberly Brown Pellum, PhD



Throughout history, black women have blazed trails across the fields of science, technology, engineering, and mathematics. *Black Women in Science* brings something special to black history books for kids, celebrating incredible black women in STEM who have used their brains, bravery, and ambition to beat the odds.

Black Women in Science stands out amongst other black history books for kids-featuring 15 powerful stories of fearless female scientists that advanced their STEM fields and fought to build a legacy. Through the triumphs of these amazing women, you'll find remarkable role models.

# **Libby loves science** – Kimberly Derting and Shelli R. Johannes



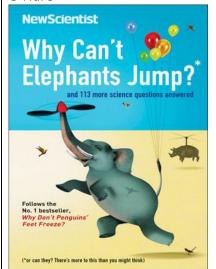
In this STEM-themed picture book, Libby and her friends are put in charge of the science booth at their school fair. There is only one problem: no one is visiting their booth! Does everyone think science is boring?

# The fangirl's guide to the galaxy: A handbook for girl geeks



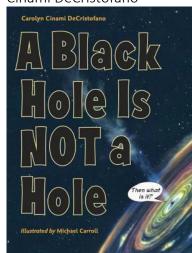
Fanfic, cosplay, cons, books, memes, podcasts, vlogs, OTPs and RPGs and MMOs and more—it's never been a better time to be a girl geek. The Fangirl's Guide to the Galaxy is the ultimate handbook for ladies living the nerdy life, a fun and feminist take on the often male-dominated world of geekdom. With delightful illustrations and an unabashed love for all the in(ternet)s and outs of geek culture, this book is packed with tips, playthroughs, and cheat codes for everything from starting an online fan community to planning a convention visit to supporting fellow female geeks in the wild.

# Why can't elephants jump? – Mick O'Hare



Why can't elephants jump? Is it because they are too large or heavy? Or is it because their knees face the wrong way? Or do they just wait until no one's looking? Read this compilation to find out.

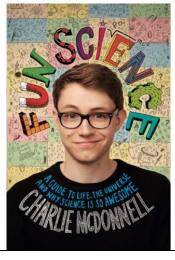
# A black hole is not a hole — Carolyn Cinami DeCristofano



Get ready to S-T-R-E-T-C-H your mind!
In a lively and often humorous text, the book starts off with a thorough explanation of gravity and the role it plays in the formation of black holes.
Paintings by Michael Carroll, coupled with real telescopic images, help readers visualize the facts and ideas presented in the text, such as how light bends, and what a supernova looks like.

A BLACK HOLE IS NOT A HOLE is an excellent introduction to an extremely complex scientific concept. Back matter includes a timeline which sums up important findings discussed throughout, while the glossary and index provide a quick point of reference for readers. Children and adults alike will learn a ton of spacey facts in this far-out book that's sure to excite even the youngest of astrophiles.

### Fun science – Charlie McDonnell

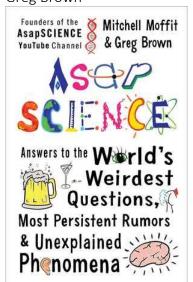


Welcome, fellow humans (and others), to the the world of FUN SCIENCE! I'm Charlie, also known across the internet as "charlieissocoollike".

In my book, I'll be taking you on an awesome journey through the cosmos, beginning with the Big Bang through to the Solar System and the origins of life on Earth, all the way down to the particles that make up everything around us (including you and me!).

(Written by a Science Fan NOT at scientist!)

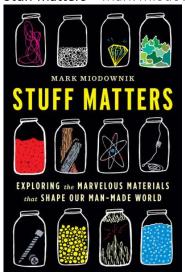
ASAP science: Answers to the world's weirdest questions, most persistent rumours and unexplained phenomena – Mitchell Moffit and Greg Brown



Applying the fun, illustrated format of their addictive videos to topics ranging from brain freeze to hiccups to the science of the snooze

button, *AsapSCIENCE* takes the underpinnings of biology, chemistry, physics, and other hard sciences and applies them to everyday life through quirky and relatable examples that will appeal to both science nerds and those who didn't ace chemistry. This is the science that people actually want to learn, shared in a friendly, engaging style. And in the spirit of science, no subject is taboo. Amid the humor is great information and cocktail conversation fodder, all thoughtfully presented. Whether you're a total newbie or the next Albert Einstein, this guide is sure to educate and entertain...ASAP.

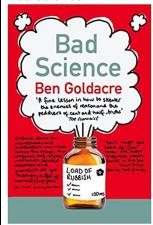
**Stuff matters** – Mark Miodownik



In *Stuff Matters*, Miodownik entertainingly examines the materials he encounters in a typical morning, from the steel in his razor and the graphite in his pencil to the foam in his sneakers and the concrete in a nearby skyscraper. He offers a compendium of the most astounding histories and marvellous scientific breakthroughs in the material world.

Full of enthralling tales of the miracles of engineering that permeate our lives, *Stuff Matters* will make you see stuff in a whole new way.

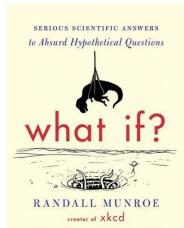
Bad Science\* - Ben Goldacre



Full of spleen, this is a hilarious, invigorating and informative journey through the world of *Bad Science*. When Dr Ben Goldacre saw someone on daytime TV dipping her feet in an 'Aqua Detox' footbath, releasing her toxins into the water, turning it brown, he thought he'd try the same at home. 'Like some kind of Johnny Ball cum Witchfinder General', using his girlfriend's Barbie doll, he gently passed an electrical current through the warm salt water. It turned brown. In his words: 'before my very eyes, the world's first Detox Barbie was sat, with her feet in a pool of brown sludge, purged of a weekend's immorality.' Dr Ben Goldacre is the

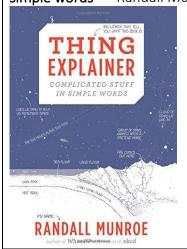
author of the Bad Science column in the Guardian. His book is about all the 'bad science' we are constantly bombarded with in the media and in advertising. At a time when science is used to prove everything and nothing, everyone has their own 'bad science' moments from the useless pie-chart on the back of cereal packets to the use of the word 'visibly' in cosmetics ads.

# What if?\* – Randall Munroe



Hilarious and informative answers to important questions you probably never thought to ask. 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. 'My friend and I were arguing about what would happen if a bullet got struck by lightning, and we agreed that you should resolve it . . . ' He liked these questions so much that he started up What If.

### Thing explainer: Complicated stuff in simple words\* - Randall Munroe

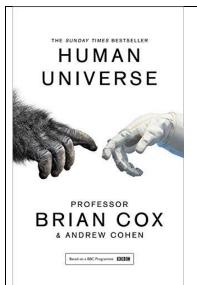


In Thing Explainer: Complicated Stuff in Simple Words, things are explained in the style of Up Goer Five, using only drawings and a vocabulary of the 1,000 (or "ten hundred") most common words. Explore computer buildings (datacenters), the flat rocks we live on (tectonic plates), the things you use to steer a plane (airliner cockpit controls), and the little bags of water you're made of (cells)

### Human universe\* - Brian Cox and Andrew Cohen

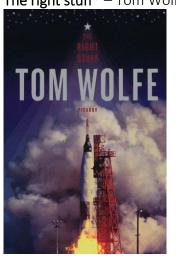
Human life is a staggeringly strange thing. On the surface of a ball of rock falling around a nuclear fireball in the blackness of a vacuum the laws of nature conspired to create a naked ape that can look up at the stars and wonder where it came from.

Human Universe is first and foremost a love letter to humanity; a celebration of our outrageous fortune



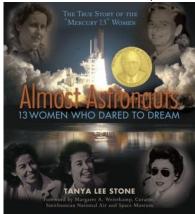
in existing at all. I have chosen to write my letter in the language of science, because there is no better demonstration of our magnificent ascent from dust to paragon of animals than the exponentiation of knowledge generated by science. Two million years ago we were apemen. Now we are spacemen. That has happened, as far as we know, nowhere else. That is worth celebrating.

**The right stuff\*** – Tom Wolfe



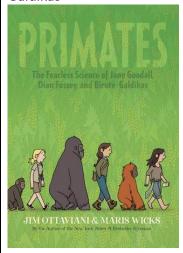
Tom Wolfe began *The Right Stuff* at a time when it was unfashionable to contemplate American heroism. Nixon had left the White House in disgrace, the nation was reeling from the catastrophe of Vietnam, and in 1979--the year the book appeared-Americans were being held hostage by Iranian militants. Yet it was exactly the anachronistic courage of his subjects that captivated Wolfe. In his foreword, he notes that as late as 1970, almost one in four career Navy pilots died in accidents. "*The Right Stuff*," he explains, "became a story of why men were willing--willing?--delighted!--to take on such odds in this, an era literary people had long since characterized as the age of the anti-hero."

Almost astronauts: 13 women who dared to dream\* – Tanya Lee Stone



What does it take to be an astronaut? Excellence at flying, courage, intelligence, resistance to stress, top physical shape — any checklist would include these. But when America created NASA in 1958, there was another unspoken rule: you had to be a man. Here is the tale of thirteen women who proved that they were not only as tough as the toughest man but also brave enough to challenge the government. They were blocked by prejudice, jealousy, and the scrawled note of one of the most powerful men in Washington. But even though the Mercury 13 women did not make it into space, they did not lose, for their example empowered young women to take their place in the sky, piloting jets and commanding space capsules. ALMOST ASTRONAUTS is the story of thirteen true pioneers of the space age.

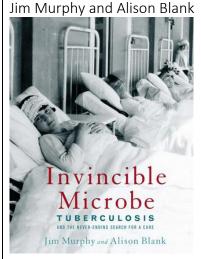
Primates: The fearless science of Jane Goodall, Dian Fossey, and Birute Galdikas\* – Jim Ottaviani



Jim Ottaviani returns with an action-packed account of the three greatest primatologists of the last century: Jane Goodall, Dian Fossey, and Biruté Galdikas. These three ground-breaking researchers were all students of the great Louis Leakey, and each made profound contributions to primatology—and to our own understanding of ourselves.

Tackling Goodall, Fossey, and Galdikas in turn, and covering the highlights of their respective careers, *Primates* is an accessible, entertaining, and informative look at the field of primatology and at the lives of three of the most remarkable women scientists of the twentieth century. Thanks to the charming and inviting illustrations by Maris Wicks, this is a nonfiction graphic novel with broad appeal.

Invincible Microbe: Tuberculosis and the never-ending search for a cure  $^{\star}$  –

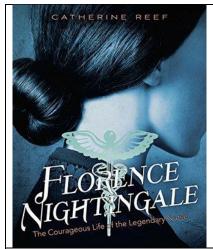


This is the story of a killer that has been striking people down for thousands of years: tuberculosis. After centuries of ineffective treatments, the microorganism that causes TB was identified, and the cure was thought to be within reach—but drugresistant varieties continue to plague and panic the human race.

The "biography" of this deadly germ, an account of the diagnosis, treatment, and "cure" of the disease over time, and the social history of an illness that could strike anywhere but was most prevalent among the poor are woven together in an engrossing, carefully researched narrative. Bibliography, source notes, index.

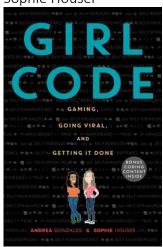
Florence Nightingale: The courageous life of the legendary nurse\* — Catherine Reef

Most people know Florence Nightingale was a compassionate and legendary nurse, but they don't know her full story. This riveting biography explores the exceptional life of a woman who defied the stifling conventions of Victorian society to pursue what was considered an undesirable vocation. She is best known for her work during the Crimean War, when she vastly improved gruesome and deadly conditions and made nightly rounds to visit patients, becoming known around the world as the Lady with the Lamp. Her tireless and inspiring work continued after the war, and her modern methods in nursing



became the defining standards still used today. *Includes notes, bibliography, and index*.

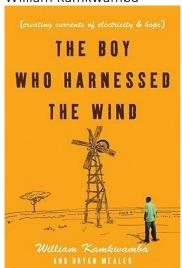
Girl code: Gaming, going viral and getting it done\* – Andrea Gonzales, Sophie Houser



Perfect for aspiring coders everywhere, *Girl Code* is the story of two teenage tech phenoms who met at Girls Who Code summer camp, teamed up to create a viral video game, and ended up becoming world famous. The book also includes bonus content to help you get started coding!

Get ready for an inside look at the tech industry, the true power of coding, and some of the amazing women who are shaping the world. Andy and Sophie reveal not only what they've learned about opportunities in science and technology but also the true value of discovering your own voice and creativity.

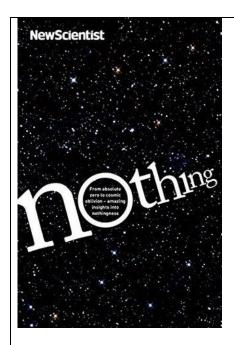
The boy who harnessed the wind\* - William Kamkwamba



William Kamkwamba was born in Malawi, a country where magic ruled and modern science was mystery. It was also a land withered by drought and hunger, and a place where hope and opportunity were hard to find. But William had read about windmills in a book called Using Energy, and he dreamed of building one that would bring electricity and water to his village and change his life and the lives of those around him. His neighbors may have mocked him and called him misala—crazy—but William was determined to show them what a little grit and ingenuity could do.

**Nothing \***— New Scientist

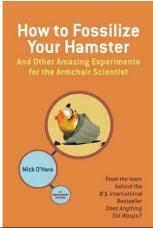
Zero, zip, nada, zilch. It's all too easy to ignore the fascinating possibilities of emptiness and non-existence, and we may well wonder what there is to



say about nothing. But scientists have known for centuries that nothing is the key to understanding absolutely everything, from why particles have mass to the expansion of the universe; without nothing we'd be precisely nowhere.

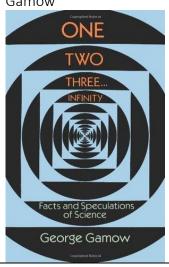
With chapters by 22 science writers, including top names such as Ian Stewart, Marcus Chown, Helen Pilcher, Nigel Henbest, Michael Brooks, Linda Geddes, Paul Davies, Jo Marchant and David Fisher, this fascinating and intriguing book revels in a subject that has tantalised the finest minds for centuries, and shows there's more to nothing than meets the eye.

# **How to fossilise your hamster\*** - Mick O'Hare



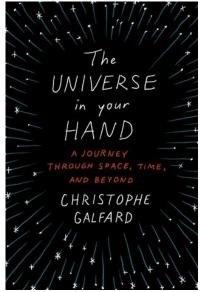
In this fascinating and irresistible new book, O'Hare and the *New Scientist* team guide you through one hundred intriguing experiments that show essential scientific principles (and human curiosity) in action. Explaining everything from the unusual chemical reaction between Mentos and cola that provokes a geyser to the geological conditions necessary to preserve a family pet for eternity, *How to Fossilize Your Hamster* is fun, hands-on science that everyone will want to try at home.

# One, two, three...infinity \*— George Gamow



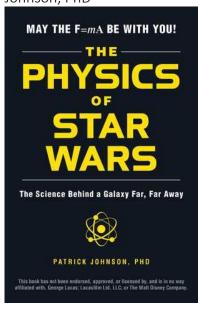
. *Infinity* also includes over 120 delightful pen-and-ink illustrations by the author, adding another dimension of good-natured charm to these wideranging explorations.

# The universe in your hand\* – Christophe Galfard



Christophe Galfard's mission in life is to spread modern scientific ideas to the general public in entertaining ways. Using his considerable skills as a brilliant theoretical physicist and successful young adult author, The Universe in Your Hand employs the immediacy of simple, direct language to show us, not explain to us, the theories that underpin everything we know about our universe. To understand what happens to a dying star, we are asked to picture ourselves floating in space in front of it. To get acquainted with the quantum world, we are shrunk to the size of an atom and then taken on a journey. Employing everyday similes and metaphors, addressing the reader directly, and writing stories rather than equations renders these astoundingly complex ideas in an immediate and visceral way.

**The physics of Star Wars \***— Patrick Johnson, PhD



Explore the physics behind the world of Star Wars, with engaging topics and accessible information that shows how we're closer than ever before to creating technology from the galaxy far, far away—perfect for every Star Wars fan!

Ever wish you could have your very own lightsaber like Luke Skywalker and Obi-Wan Kenobi? Or that you could fly through space at the speed of light like Han Solo and Poe Dameron?

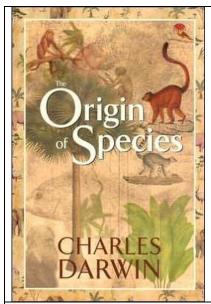
Well, those ideas aren't as outlandish as you think.

In *The Physics of Star Wars*, you'll explore the mystical power of the Force using quantum mechanics, find out how much energy it would take for the Death Star or Starkiller Base to destroy a planet, and discover how we can potentially create our very own lightsabers. The fantastical world of Star Wars may become a reality!

# **The origin of species\*** – Charles Darwin

Darwin's theory of natural selection issued a profound challenge to orthodox thought and belief: no being or species has been specifically created; all are locked into a pitiless struggle for existence, with extinction looming for those not fitted for the task.

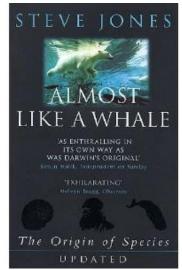
Yet *The Origin of Species* (1859) is also a humane and inspirational vision of ecological interrelatedness, revealing the complex mutual



interdependencies between animal and plant life, climate and physical environment, and—by implication—within the human world.

Written for the general reader, in a style which combines the rigour of science with the subtlety of literature, *The Origin of Species* remains one of the founding documents of the modern age.

Almost like a whale\* - Steve Jones

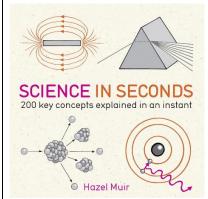


Steve Jones takes on the challenge of going back to the book of the millennium, Charles Darwin's The Origin of Species. Before The Origin, biology was a set of unconnected facts. Darwin made it into a science, linked by the theory of evolution, the grammar of the living world. It reveals ties between cancer and the genetics of fish, between brewing and inherited disease, between the sex lives of crocodiles and the politics of Brazil. Darwin used the biology of the nineteenth century to prove his case. Now, that science has been revolutionized and his case can be reargued using the twentieth century's astonishing advances.

From AIDS to dinosaurs, from conservation to cloned sheep, bursting with anecdotes, jokes and irresistible facts, Almost Like a Whale is a popular account of the science that makes biology make sense. It will catch the millennial mood and tell all those for whom Darwin is merely a familiar name what he really meant. It exposes the Darwinian delusions which try (and fail) to explain human behaviour in evolutionary terms, and, while giving an up-to-date account

of our own past, shows how humans are the first species to step beyond the constraints of biology.

### Science in seconds\* - Hazel Muir

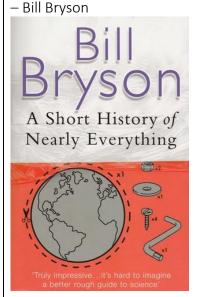


"Science in Seconds" explains 200 of the most important concepts in various branches of science. The book uses easily understood language and clear illustrations for each concept, making it ideal for those with little or no experience in the sciences. Readers can gain a preliminary understanding and may be motivated to seek more information. Generous cross-referencing and a glossary of terms add clarity and context.

The book explains key concepts in the following subjects: Physics, Chemistry, Biology, Ecology, Biotechnology, Anatomy and physiology, Medicine, Earth science, Energy generation, Astronomy, Space flight, Information technology

"Science in Seconds" is an excellent resource for students recently introduced to these concepts and as a quick-look reference for interested readers.

## A short history of nearly everything\*



In Bryson's biggest book, he confronts his greatest challenge: to understand—and, if possible, answer—the oldest, biggest questions we have posed about the universe and ourselves. Taking as territory everything from the Big Bang to the rise of civilization, Bryson seeks to understand how we got from there being nothing at all to there being us. To that end, he has attached himself to a host of the world's most advanced (and often obsessed) archaeologists, anthropologists, and mathematicians, travelling to their offices, laboratories, and field camps. He has read (or tried to read) their books, pestered them with questions, apprenticed himself to their powerful minds. A Short History of Nearly Everything is the record of this quest, and it is a sometimes profound, sometimes funny, and always supremely clear and entertaining adventure in the realms of human knowledge, as only Bill Bryson can render it. Science has never been more involving or entertaining.

# Watch (documentaries)

The Mars Generation



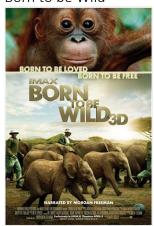
Aspiring teenage astronauts reveal that a journey to Mars is closer than you think

ANY DAVID ATTENBOROUGH DOCUMENTARY (too many to list!)



David Attenborough shares his journey across the world showing the way flora and fauna interact with one another. Most recently, his documentaries highlight how human life is impacting our planet and sets in motion the realisation and need to stop polluting the planet.

Born to be Wild



Born to be Wild is a brief (40-minute) nature documentary about conservationists who adopt and raise displaced orangutans and elephants in Borneo and Kenya, respectively, preparing the animals for re-entry into their natural habitats. The stories are compelling, teaching valuable lessons about environmentalism and empathy, and the animals themselves are wondrous.

Micro Cosmos

It is impossible to tell that *Microcosmos* was made over 20 years ago. It's a wonderful film about bugs, of all things, using microscopic cameras that make the bugs appear larger than life. It's literally like *Bugs Life*, but real. Also, the film is silent except for scoring — no narration, no words, no lessons. Just bugs.

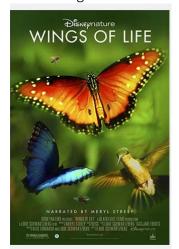


### A beautiful planet



Astronauts on the International Space Station captured fifteen months' worth of footage of Earth; the documentary explores our small blue dot, the daily lives of the astronauts, the technology of space, and about the international cooperation between astronauts.

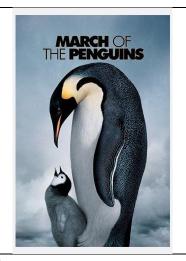
### Wings of life



A kaleidoscopically coloured exploration of the birds and the bees (don't worry, that's not a metaphor), this Disneynature documentary for children offers a bug's-eye-view of the world, focusing on butterflies, bees, bats, birds, and other flying creatures, offering insight into their importance to the circle of life via pollination. It's full of great lessons, particularly for kids who seem to hate bugs for no reason. Plus, it's narrated by Meryl Streep.

### March of the Penguins

Narrated by the one and only Morgan Freeman, this blockbuster documentary for kids follows a flock of emperor penguins as they leave their oceanic habitat to march across the Antarctic tundra. The imagery is stunning, the penguins adorable, and the story one that will help children understand animal behaviour. That said, while it's relatively tame, some of the penguins meet their demise on the journey, which might force a conversation about mortality. Overall, though, it's a

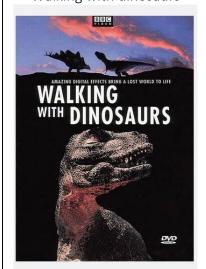


breath-taking example of feature-length documentary storytelling.



Jane focuses on the tireless efforts of conservationists to help endangered animals recover. In this case, said conservationist is Jane Goodall, the world's most famous and renowned primatologist, who spent more than five decades living among chimpanzees in the wilds of Tanzania. Hers is a story of overcoming adversity at every turn and about channelling passions into positive change. For any child even remotely interested in working among animals, it's a tale of hope, compassion, and aspiration.

### Walking with dinosaurs



This six-part BBC series gives the Mesozoic Era the nature documentary treatment, complete with computer-generated recreations of dinosaur behaviour and narration by Sir Kenneth Branagh. The dramatic recreations do include some of the requisite mayhem (re: eating) and some of the information has been proven outdated in the intervening two decades. But in terms of educational content for kids who love dinosaurs, it's hard to beat.

# Project Nim

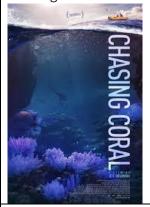
A documentary about Nim Chimpsky, the chimpanzee who became the focus of a landmark experiment in the 1970s, which aimed to show that an ape could learn to communicate with language.

### Science fair



Science fair follows nine high school students from around the globe as the navigate rivalries, setbacks, and of course, hormones on their journey to compete at The International Science and Engineering Fair.

### **Chasing Coral**



Coral reefs around the world are vanishing at an unprecedented rate. A team of divers, photographers and scientists set out on a thrilling ocean adventure to discover why and to reveal the underwater mystery of the world.

### The Farthest

It is one of humankind's greatest achievements. More than 12 billion miles away a tiny spaceship is leaving our solar system and entering the void of deep space – the first human-made object ever to do so.



# Watch (film)

Hidden Figures (Age 12+)



The story of a team of female African-American mathematicians who served a vital role in NASA during the early years of the U.S. space program.

The theory of everything (Age 11+)



This is the extraordinary story of one of the world's greatest living minds, the renowned astrophysicist Stephen Hawking, who falls deeply in love with fellow Cambridge student Jane Wilde. Once a healthy, active young man, Hawking received an earth-shattering diagnosis at 21 years of age. With Jane fighting tirelessly by his side, Stephen embarks on his most ambitious scientific work, studying the very thing he now has precious little of - time. Together, they defy impossible odds, breaking new ground in medicine and science, and achieving more than they could ever have dreamed. The film is based on the memoir Travelling to Infinity: My Life with Stephen, by Jane Hawking, and is directed by Academy Award winner James Marsh.

Apollo 13 (Age 14+)

"Houston, we have a problem." Those words were immortalized during the tense days of the Apollo 13 lunar mission crisis in 1970, events recreated in this epic historical drama from Ron Howard. Astronaut Jim Lovell (Tom Hanks) leads command module pilot Jack Swigert (Kevin Bacon) and lunar module driver Fred Haise (Bill



Paxton) on what is slated as NASA's third lunar landing mission. All goes smoothly until the craft is halfway through its mission, when an exploding oxygen tank threatens the crew's oxygen and power supplies. As the courageous astronauts face the dilemma of either suffocating or freezing to death, Mattingly and Mission Control leader Gene Kranz (Ed Harris) struggle to find a way to bring the crew back home, all the while knowing that the spacemen face probable death once the battered ship re-enters the Earth's atmosphere.

### Interstellar (Age 12+)



With our time on Earth coming to an end, a team of explorers undertakes the most important mission in human history; traveling beyond this galaxy to discover whether mankind has a future among the stars.

The Martian (age 12+)



During a manned mission to Mars, Astronaut Mark Watney (Matt Damon) is presumed dead after a fierce storm and left behind by his crew. But Watney has survived and finds himself stranded and alone on the hostile planet. With only meagre supplies, he must draw upon his ingenuity, wit and spirit to subsist and find a way to signal to Earth that he is alive. Millions of miles away, NASA and a team of international scientists work tirelessly to bring "the Martian" home, while his crewmates concurrently plot a daring, if not impossible rescue mission. As these stories of incredible bravery unfold, the world comes together to root for Watney's safe return.

### The Imitation Game (Age 15+)



During the winter of 1952, British authorities entered the home of mathematician, cryptanalyst and war hero Alan Turing (Benedict Cumberbatch) to investigate a reported burglary. They instead ended up arresting Turing himself on charges of 'gross indecency', an accusation that would lead to his devastating conviction for the criminal offense of homosexuality - little did officials know, they were actually incriminating the pioneer of modern-day computing. Famously leading a motley group of scholars, linguists, chess champions and intelligence officers, he was credited with cracking the so-called unbreakable codes of Germany's World War II Enigma machine. An intense and

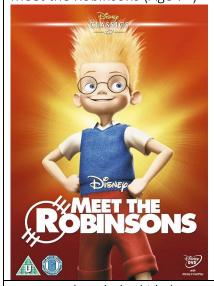
haunting portrayal of a brilliant, complicated man, THE IMITATION GAME follows a genius who under nail-biting pressure helped to shorten the war and, in turn, save thousands of lives.

### Big Hero 6 (Age 7+)



With all the heart and humour audiences expect from Walt Disney Animation Studios, "Big Hero 6" is an action-packed comedy-adventure about robotics prodigy Hiro Hamada, who learns to harness his genius-thanks to his brilliant brother Tadashi and their like-minded friends: adrenaline junkie Go Go Tamago, neatnik Wasabi, chemistry whiz Honey Lemon and fanboy Fred. When a devastating turn of events catapults them into the midst of a dangerous plot unfolding in the streets of San Fransokyo, Hiro turns to his closest companion-a robot named Baymax-and transforms the group into a band of high-tech heroes determined to solve the mystery.

### Meet the Robinsons (Age 7+)



An orphan who dreams of someday finding a family to call his own finds his fate taking an unexpected turn when a mysterious stranger named Wilbur Robinson transports him into the future. Based on the book A Day With Wilbur Robinson by William Joyce, Meet the Robinsons tells the story of a boy with a lifelong wish to belong, and shows what happens when he meets an incredible collection of characters who just might have the power to make his wildest fantasies come true.

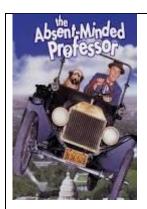
Honey, I shrunk the kids (Age 7+)



An absent-minded inventor leaves his latest creation, a shrinking ray, unattended in his attic, where it is accidentally triggered by his young children. When the newly tiny youngsters are tossed out with the trash, they must survive the long journey across the lawn to make it home in this fantasy-adventure.

The absent minded professor (Age 7+)

Fred MacMurray stars in this Walt Disney comedy hit concerning absent-minded professor Ned Brainard (MacMurray), a science teacher at a small-town college,



who is so scatter-brained that he has forgotten to show up at his own wedding. Missing his wedding ceremony twice, he is determined not to do it again. But, when he gets involved in some chemical experiments, he leaves he poor bride-to-be Betsy (Nancy Olsen) stranded at the altar again. Although his weddings plans are not successful, his experiments are --he develops a black and rubbery substance that bounces very high and seems to defy gravity. He calls it "flubber." When he substitutes the formula for the motor in his old Model T Ford, he can fly through the sky in his car. Continuing on with practical uses for the substance, he applies it to the college basketball team's sneakers, permitting them to rocket over the heads of the opposing team and win an easy victory. But when word of Brainard's discovery comes to the attention of nefarious alumnus Alonzo Hawk (Keenan Wynn), Hawk plans to steal Barinard's car and his formula to "flubber."

### E.T (Age 7+)



Both a classic movie for kids and a remarkable portrait of childhood, E.T. is a sci-fi adventure that captures that strange moment in youth when the world is a place of mysterious possibilities (some wonderful, some awful), and the universe seems somehow separate from the one inhabited by grown-ups. Henry Thomas plays Elliott, a young boy living with his single mother (Dee Wallace), his older brother Michael (Robert MacNaughton), and his younger sister Gertie (Drew Barrymore). Elliott often seems lonely and out of sorts, lost in his own world. One day, while looking for something in the back yard, he senses something mysterious in the woods watching him. And he's right: an alien spacecraft on a scientific mission mistakenly left behind an aging botanist who isn't sure how to get home. Eventually Elliott puts his fears aside and makes contact with the "little squashy guy," perhaps the least threatening alien invader ever to hit a movie screen. As Elliott tries to keep the alien under wraps and help him figure out a way to get home, he discovers that the creature can communicate with him telepathically. Soon they begin to learn from each other, and Elliott becomes braver and less threatened by life. E.T. rigs up a communication device from junk he finds around the house, but no one knows if he'll be rescued before a group of government scientists gets hold of him.

Journey to the centre of the Earth (Age 14+)

Academy Award-winning visual effects artist Eric Brevig makes his feature directorial debut with this adaptation of the classic Jules Verne fantasy starring Brendan Fraser.



When an ambitious science professor (Fraser) develops a decidedly unconventional hypothesis, the mere mention of his name is enough to elicit laughter within the academic community. However, during a subsequent excursion to Iceland, the professor and his nephew make a major scientific discovery that sends them miles beneath the surface of the Earth, where they discover not only strange new worlds, but also encounter creatures so alien they appear to be from another world entirely.

Flight of the navigator (Age 11+)



The year is 1978: 12-year-old David Freeman (Joey Cramer), playing in the woods near his home, is knocked unconscious. He awakens and heads home, only to find strangers living there. He also finds that the year is 1986, and that he's been officially missing for eight years. NASA officials determine that David was abducted by aliens during his blackout, and hope to scan the boy's brain in order to unlock a few secrets of the universe. Answering the call of a strange, unseen force, David boards a well-hidden spaceship and takes off, guided by the jocular voice of a computer named MAX (voiced by none other than Paul Reubens, aka Pee-Wee Herman). Realizing that he can't fit in to 1986 so long as he's a child of the '70s, David hopes to retrace the steps of his alien abductors and get back to his own time.

# 20,000 leagues under the sea (Age 11+)



This 1954 Disney version of Jules Verne's 20,000 Leagues Under the Sea represented the studio's costliest and most elaborate American-filmed effort to date. Kirk Douglas plays a trouble-shooting 19th century seaman, trying to discover why so many whaling ships have been disappearing of late. Teaming with scientist Paul Lukas and diver Peter Lorre, Douglas sets sail to investigate--and is promptly captured by the megalomaniac Captain Nemo (James Mason), who skippers a lavish, scientifically advanced submarine. The film's special effects, including a giant squid, were impressive enough in 1954 to win an Academy Award.

### Planet of the apes (Age 15+)

This big budget "re-imagining" of the 1968 original departs somewhat from both that classic science fiction film and the source novel by author Pierre Boulle. Mark Wahlberg stars as Leo Davidson, an astronaut of the early 21st



century whose unauthorized mission to rescue a chimp companion from a mysterious space storm goes awry when he and his ship are lost through a rip in the fabric of time. Leo crash-lands on a planet where intelligent, talking apes are the dominant species and humans a conquered slave class. Befriending both a chimpanzee activist named Ari (Helena Bonham Carter), who's sympathetic to humans, and a beautiful human rebel, Daena (Estella Warren), Leo quickly becomes a prominent figure of resistance to his fellow humans. This makes him an instant source of irritation for the militant and ambitious General Thade (Tim Roth) and his trusted adjutant, Attar (Michael Clarke Duncan), who intend to hunt Leo down and crush the burgeoning human uprising. War looms between ape and human as Leo and his band head for a sacred site deep in an off-limits desert, where secrets about the planet's ape and human ancestry wait to be revealed.

### Back to the future (Age 12+)



Contemporary high schooler Marty McFly (Michael J. Fox) doesn't have the most pleasant of lives. Browbeaten by his principal at school, Marty must also endure the acrimonious relationship between his nerdy father (Crispin Glover) and his lovely mother (Lea Thompson), who in turn suffer the bullying of middle-aged jerk Biff (Thomas F. Wilson), Marty's dad's supervisor. The one balm in Marty's life is his friendship with eccentric scientist Doc (Christopher Lloyd), who at present is working on a time machine. Accidentally zapped back into the 1950s, Marty inadvertently interferes with the budding romance of his now-teenaged parents. Our hero must now reunite his parents-to-be, lest he cease to exist in the 1980s. It won't be easy, especially with the loutish Biff, now also a teenager, complicating matters.

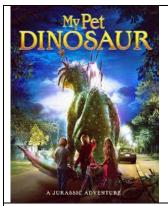
### Archive (age 14+)



2038. Two and a half years into a three-year research contract, George Almore is on the verge of a breakthrough. Stationed halfway up a snow-capped mountain near Kyoto at a secret facility codenamed 'The Garden', he has been working on a model that is a true human-equivalent android. His prototype is almost complete. But this most sensitive phase of his work is also the riskiest. Especially as George has an ulterior motive for his work that must be hidden at all costs: Being re-united with his dead wife, Jules.

My pet dinosaur (Age 9+)

When a young boy named Jake accidentally makes a new friend in an experiment gone wrong a troubled town is



plunged into chaos. But with the creature rapidly evolving every day, Jake finds it increasingly difficult to keep his new pet secret. Jake's friends and new girl Abbie realize they are not the only ones interested in this strange, mischievous little dinosaur and soon discover that the only thing more mysterious than what it is, is who is looking for it.

Alternate Universe: A rescue mission (Age 11+)



Two teenage sisters who have lost their parents in a car accident, begin to suspect that they are actually alive and trapped in an alternate universe. With the help of their physics teacher and a friend they embark on a quest to find their mom and dad.

War of the planet of the apes (age 15+)



In War for the Planet of the Apes, the third chapter of the critically acclaimed blockbuster franchise, Caesar and his apes are forced into a deadly conflict with an army of humans led by a ruthless Colonel. After the apes suffer unimaginable losses, Caesar wrestles with his darker instincts and begins his own mythic quest to avenge his kind. As the journey finally brings them face to face, Caesar and the Colonel are pitted against each other in an epic battle that will determine the fate of both their species and the future of the planet.

Gravity (Age 14+)



Gravity stars Sandra Bullock and George Clooney in a heart-pounding thriller that pulls you into the infinite and unforgiving realm of deep space. Bullock plays Dr. Ryan Stone, a brilliant medical engineer on her first shuttle mission, with veteran astronaut Matt Kowalsky (Clooney). But on a seemingly routine spacewalk, disaster strikes. The shuttle is destroyed, leaving Stone and Kowalsky completely alone - tethered to nothing but each other and spiralling out into the blackness. The deafening silence tells them they have lost any link to Earth and any chance for rescue. As fear turns to panic, every gulp of air eats away at what little oxygen is left. But the only way home may be to go further out into the terrifying expanse of space.

### TRON: Legacy (Age 10+)



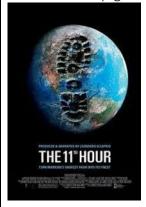
The Master Control Program is booted back up in this revamped Tron continuation that sees the return of original star Jeff Bridges as Kevin Flynn, the brilliant computer programmer whose disappearance leads his son, Sam (Garrett Hedlund), to search for him in and out of the computer world.

2012 (Age 14+)



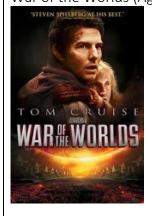
Disaster movie maven Roland Emmerich (Independence Day, The Day After Tomorrow) crafts this apocalyptic sci-fi thriller following the prophecy stated by the ancient Mayan calendar, which says that the world will come to an end on December 21, 2012. When a global cataclysm thrusts the world into chaos, divorced writer and Father Jackson Curtis (John Cusack) joins the race to ensure that humankind is not completely wiped out.

The 11<sup>th</sup> Hour (Age 12+)



"The 11th Hour" is the last moment when change is possible. The film explores how we've arrived at this moment -- how we live, how we impact the earth's ecosystems, and what we can do to change our course. Featuring ongoing dialogues of experts from all over the world, including former Soviet Prime Minister Mikhail Gorbachev, renowned scientist Stephen Hawking, former head of the CIA R. James Woolsey and sustainable design experts William McDonough and Bruce Mau in addition to over 50 leading scientists, thinkers and leaders who discuss the most important issues that face our planet and people.

### War of the Worlds (Age 13+)



This is a contemporary retelling of H.G. Wells' seminal sci-fi classic. The adventure/thriller reveals humankind's extraordinary battle against an extra-terrestrial invasion fleet, as seen through the eyes of one American family. Located somewhere in the New England United States, the family -- like millions of others around the globe -- is forced to take refuge from the aliens' highly advanced weapons and impenetrable shields, which are unstoppable against anything that mankind can throw at them. Unable to fight back and finding it more and more difficult to remain hidden from the aliens, the human race faces the end of its existence.

### I, Robot (Age 13+)



In the future presented in the film, humans have become exceedingly dependent on robots in their everyday lives. Robots have become more and more advanced, but each one is pre-programmed to always obey humans and to, under no circumstances, ever harm a human. So, when a scientist turns up dead and a humanoid robot is the main suspect, the world is left to wonder if they are as safe around their electronic servants as previously thought. Will Smith stars as Del Spooner, the robot-hating Chicago cop assigned to the murder investigation. Bridget Moynahan, Bruce Greenwood, James Cromwell, and Chi McBride also star.

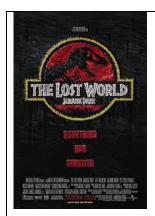
### Jurassic Park (Age 11+)



Steven Spielberg's phenomenally successful sci-fi adventure thriller is graced by state-of-the-art special effects from the team of Stan Winston, Phil Tippett and Michael Lantieri from George Lucas's Industrial Light & Magic. The film follows two dinosaur experts -- Dr. Alan Grant (Sam Neill) and Dr. Ellie Sattler Laura Dern) -- as they are invited by eccentric millionaire John Hammond (Richard Attenborough) to preview his new amusement park on an island off Costa Rica. By cloning DNA harvested from pre-historic insects, Hammond has been able to create living dinosaurs for his new Jurassic Park, an immense animal preserve housing real brachiosaur, dilophosaurs, triceratops, velociraptors, and a Tyrannosaur Rex. Accompanied by cynical scientist Ian Malcolm (Jeff Goldblum), who is obsessed with chaos theory, and Hammond's two grandchildren (Ariana Richards and Joseph Mazzello), they are sent on a tour through Hammond's new resort in computer controlled touring cars. But as a tropical storm hits the island, knocking out the power supply, and an unscrupulous employee (Wayne Knight) sabotages the system so that he can smuggle dinosaur embryos out of the park, the dinosaurs start to rage out of control. Grant then must bring Hammond's grandchildren back to safety as the group is pursued by the gigantic man-eating beasts.

# Jurassic Park: The Lost World (Age 11+)

Just when you'd think that scientists would realize dinosaurs and humans don't mix, along comes The Lost World: Jurassic Park to prove you wrong. In this sequel, John Hammond (Richard Attenborough) summons chaos theorist and onetime colleague Ian Malcolm (Jeff Goldblum) to his home with some startling information -- while nearly everything at his Jurassic Park had been



destroyed, engineers were also operating a second site, where other dinosaurs, resurrected through DNA cloning technology, had been kept in hiding. Hammond has learned the dinosaurs on the second island are alive and well and even breeding; Hammond wants Malcolm to observe and document the reptiles before Hammond's financiers can get to them. Malcolm declares he had enough of the dinosaurs the first time out but decides to make the trip when he finds out that his girlfriend, palaeontologist Sarah Harding (Julianne Moore), is already there. However, Ian and Sarah aren't the only visitors expected on the island; a camera crew led by ecological activist Nick Van Owen (Vince Vaughn) is on the way, as is Roland Tembo (Pete Postlethwaite), a world-class wild game hunter who is supposed to round up the dinosaurs and who hopes to bag a prehistoric trophy for himself in the process. This sequel to Jurassic Park boasted even more impressive special effects than the first film, though the acting and screenplay aren't always at the same level.

### Jurassic Park 3 (Age 11+)



Director Joe Johnston takes over the creative reins from Steven Spielberg for this third instalment in the thriller franchise. Sam Neill returns as Dr. Alan Grant, a scientist who's tricked by wealthy couple Paul and Amanda Kirby (William H. Macy and Tea Leoni) into a fly-over of Isla Sorna. The object of their sightseeing tour is one of the Costa Rican islands populated by ferocious, genetically bred dinosaurs and the "site B" setting of Jurassic Park 2: The Lost World (1997). After their plane crash-lands, it's revealed that the Kirby's are seeking their teenage son, lost on the island after a paragliding accident. Trapped on Isla Sorna, Grant and his companions discover some painful truths the hard way. Among their discoveries: some of the scaly monsters possess more advanced communicative abilities than previously believed, the dreaded Tyrannosaurus Rex has a larger and more lethal competitor and flying Pteranodons pose an even graver threat than some of their land-locked brethren. Jurassic Park III is the first in the series not to be based upon a novel by original author Michael Crichton.

### Jurassic World (Age 11+)

Steven Spielberg returns to executive produce the longawaited next instalment of his ground-breaking Jurassic Park series, Jurassic World. Colin Trevorrow directs the epic action-adventure based on characters created by Michael Crichton. The screenplay is by Rick Jaffa & Amanda Silver and Derek Connolly & Trevorrow, and the story is by Rick



Jaffa & Amanda Silver. Frank Marshall and Patrick Crowley join the team as producers.

Jurassic World: Fallen Kingdom (Age 11+)



It's been three years since theme park and luxury resort Jurassic World was destroyed by dinosaurs out of containment. Isla Nublar now sits abandoned by humans while the surviving dinosaurs fend for themselves in the jungles. When the island's dormant volcano begins roaring to life, Owen (Chris Pratt) and Claire (Bryce Dallas Howard) mount a campaign to rescue the remaining dinosaurs from this extinction-level event. Owen is driven to find Blue, his lead raptor who's still missing in the wild, and Claire has grown a respect for these creatures she now makes her mission. Arriving on the unstable island as lava begins raining down, their expedition uncovers a conspiracy that could return our entire planet to a perilous order not seen since prehistoric times.

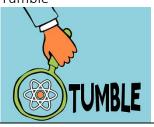
# Listen (Podcasts)

Infinite Monkey Cage



Witty, irreverent look at the world through scientists' eyes. With Brian Cox and Robin Ince.

Tumble



Tumble is a science podcast for kids, to be enjoyed by the entire family. We tell stories about science discoveries, with the help of scientists! Join Lindsay and Marshall as they ask questions, share mysteries, and share what science is all about.

**Imaginary Worlds** 

Imaginary Worlds is a podcast about science fiction and other fantasy genres hosted by Eric Molinsky.



### **Brains On**



Brains On! is an award-winning audio show for kids and families. Each week, a different kid co-host joins Molly Bloom to find answers to fascinating questions about the world. Our mission is to encourage kids' natural curiosity and wonder using science and history...but there's no age limit on curiosity, and episodes of Brains On can be enjoyed by anyone.

# The Show About Science



Created by Nate when he was 5 years old, The Show About Science is an awesome adventure into the wondrous world of scientific research and discovery! For the last 4 years, Nate has filled each episode with fascinating information from scientists and educators from around the globe. Together, Nate and his guests explore everything from chemistry to climate change, evolution to extra-terrestrials, and human brains to bat biology. If you're curious about science, then this is the show for you!

**Origin Stories** 



What makes us human? How are we different from chimpanzees? Who are out earliest ancestors and how do we know? Origin stories is The Leakey Foundation's podcast about how we became human

This award-winning show combines science and narrative to explore our human story and explain why we are the way we are. Listen and explore human evolution one story at a time.

### Curious Minds



Curious Minds is a podcast (Radio-On-Demand) about Science, Technology, and History. Each episode brings interesting stories from a wide range of subjects: from Physics and Astronomy to Medicine, Art and Science Fiction.

### Eyes on Conservation

The Eyes on Conservation Podcast is an interview series featuring conservations with top experts in the fields of conservation, wildlife and environmental justice.



### The Adaptors



A podcast about life on Earth during a weird time: now. We visit people who are thinking about the future and figuring out how we will adapt to a changing planet.

# Meanwhile from the Future



Meanwhile in the Future is a brand-new podcast from Gizmodo in which we try to really overthink what the future has in store for us. Every episode will tackle one potential future scenario — everything from a sudden ice age, to the end of antibiotic effectiveness, to a world in which contact sports are banned due to head injury — and try to work out how that future would really go down.

### Science Friday



Covering the outer reaches of space to the tiniest microbes in our bodies, Science Friday is the source for entertaining and educational stories about science, technology, and other cool stuff.

### StarTalk Radio



StarTalk Radio, from Curved Light Productions, was the first popular commercial radio program devoted to astronomy, physics, and everything else about life in the universe, now in its 11th season as a radio show and podcast. The show is hosted by renowned astrophysicist Neil deGrasse Tyson, the Director of the Hayden Planetarium at the American Museum of Natural History in New York City.

# People Behind the Science

People Behind the Science's mission is to inspire current and future scientists, share the different paths to a successful career in science, educate the general population on what scientists do, and show the human side of science.

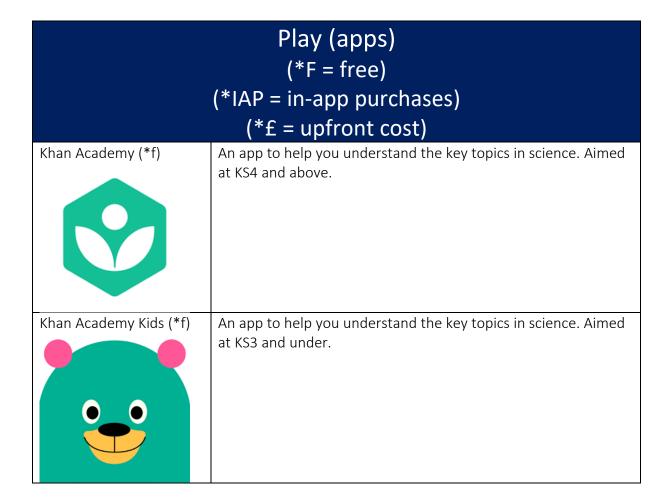
In each episode, a different scientist will guide us through their journey by sharing their successes, failures, and passions. We are



excited to introduce you to these inspiring academic and industry experts from all fields of science to give you a variety of perspectives on the life and path of a scientist.

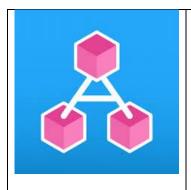


From corals to coastal science, connect with ocean experts to explore questions about the ocean environment.



NASA (*f)	Come explore with NASA and discover the latest images, videos, mission information, news, feature stories, tweets, NASA TV and featured content with the NASA app.
Gene quest (*f)	They live among us people living ordinary lives, unaware that
	their genes may hold the clue to curing illness.  This is your mission take on the role of a scientist and explore east London to find people with genetic knockouts!  Educational and fun, learn about genes, DNA and medical
	research in this FREE platform game.
BrainPOP (*f with *IAP)	Help kids understand their world with the BrainPOP Featured Movie app. Our animated movies engage via narrative, humour, and characters who speak in a voice kids can relate to, encouraging self-directed learning and further exploration of the world around them, and the world within them.
	Our free Featured Movie topics rotate daily and tie into current events, historical milestones and figures, holidays, and more!  BrainPOP's entertaining and informative animations are recognized across the world as a unique and engaging learning resource. Each movie is paired with an interactive quiz so kids can test their new knowledge, and all movies are close captioned, so it's easy for them to read along.
	Some of the content is free, some is only unlocked after purchase.
DIY Sun Science (*f)	DIY sun science, funded by NASA, allows families and educators to investigate and learn about the sun at home, school, or anywhere you go.  Hands on activities include over a dozen, easy to use, activities about the sun. Each activity includes step-by-step instructions that have been tried and tested by teachers and kids alike.
Twinkl Architect (*f)	Build amazing towers, bridges and anything you can think of in this ground-breaking augmented reality realistic physics game!  Experiment with forces, materials, friction and surfaces in the

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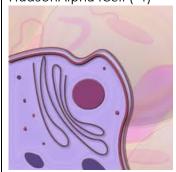
open-ended Creative Mode before testing your skills in several varied challenges with friends on up to 3 different devices.

### Tinycards (\*f)



Introducing a fun new way to prepare for tests and memorize vocabulary! Tinycards is a flashcards app made by the team behind Duolingo, the most downloaded education app in the world.

### HudsonAlpha iCell (\*f)



Take a journey inside the cell.

iCell gives students, teachers, and anyone interested in biology a 3D view inside a cell. Included are examples of three types of cells: animal, plant, and bacteria. Learn about the various parts of the cell, which biologists, biochemists, and DNA researchers at the HudsonAlpha Institute study and use to advance the limits of biotechnology.

You can use your finger to tap on parts of the cell to select and zoom in on that particular organelle. Each organelle comes with a name and a short description of its function in the cell.

# TocaLab: Elements (£3.99 or £4.99 for bundle of the two TocaLab apps)



### Calling all future scientists!

Welcome to Toca Lab: Elements! Explore the colourful and electrifying world of science and meet all 118 of the elements from the periodic table.

Discover elements by experimenting with the lab tools!

- \* Take your element for a spin in the centrifuge.
  - \* Warm them up in the Bunsen burner.
- \* Put the element on ice with the cooling agent!
- \* Add a drop or two of mysterious liquids from the test tubes.
  - \* Change their voltage and make them magnetic with the oscilloscope.

Each element has its own personality. In Toca Lab: Elements, what does Neon sound like? Is Gold heavy or light? Is Nitrogen squishy or hard? Explore, inspect, and study each one and let us know! Can you find all 118?

The time has come, future scientists, to head into the lab to explore and discover. Put on your lab coat and protective eye gear because things are about to get experimental!

Toca Lab: Elements is a place for playing and having fun, and with it we hope to inspire kids to explore science. While the periodic table in Toca Lab: Elements is accurate, the way new elements are created is not. Instead, it's a fun way to experiment, discover and create curiosity in the world of science. Toca Lab: Elements is just a starting point for further exploration!

TocaLab: Plants (£3.99 or £4.99 for bundle of the two TocaLab apps)



Just like with the first app in the Toca Lab Series, Toca Lab: Elements, your curiosity will lead the way. Choose your plant, then visit five different locations in the lab:

- Grow light: Shine the light on your plant and watch what happens! Does your plant bask and happily sigh in the light, or groan and wriggle away? What happens when you turn the light up a notch or two?
- Watering tank: Put your plant in the tank and fill it up with water. Will your plant float? How does your plant behave when it's soaking wet?
- Nutrition station: What's the optimal diet for your plant? Try the three different nutrition formulas and discover which ones your plant character likes!
- Cloning machine: Spin the wheel on the cloning machine and before you know it, you'll have five little versions of your plant. Wonder what the clones can do? Experiment and find out!
  - Crossbreeding apparatus: Here you can mix two plants to create something unexpected. Try it and see what happens!

Have fun experimenting at each station to see how the plants evolve. Keep experimenting until you've collected all 35 plant characters in the app. Once you've collected a plant, keep

experimenting to continue to evolve it! Who says kids can't be
scientists? Toca Lab: Plants brings out the budding botanist in
everybody!