All About BOOKS KIDS

Science Edition

CITY OF PARRAMATTA LIBRARIES

Welcome to All About Books Kids, Science!

Hi Everyone,

It has been so nice to see some of you back in the library this month, we have missed seeing all your friendly faces. The little ones have grown so much!

This month we are celebrating National Science Week, so this issue is all about science and some of the great resources we have here in the library. We were also fortunate enough to interview the fantastic Dr. Karl Kruszelnicki, science communicator extraordinaire. Turn to page 4 to view. We love what Dr Karl says about the importance of healthy minds.

"A healthy mind includes being curious, trying to learn as much as you can about the world around you, trying to have friends, and being friendly with your family and everybody else."

We think the best place to fuel that curiosity is the library! You can find answers to all your questions right here.

This issue is chock full of all kinds of interesting science-themed books, from fiction to non-fiction, so make sure you start your own science-themed reading list as we're sure there will be plenty for everyone.

We are also launching our new World Book collection this month. These books have easily digestible text, even for the youngest of readers, engaging layouts and cover a wide range of different topics. We hope you enjoy them as much as we have enjoyed selecting them for you!

Turn to page 16 to find out about our Little Bang Discovery Club program with Wendy from Children's Discovery Museum. Wendy has hosted many events at the library and we are so excited that Children's Discovery Museum has created an on-demand, online version of Little Bangs which you can view for free on our website. It's for preschoolers aged 3-6 years old and presented by Wendy herself!

If you visit our dedicated Science Week website, you'll find plenty of other interesting videos too! Check out our science story time, or our recommended reads, or even see how we turned our picture book collection into dominoes!

Don't forget that our Snap and Share competition is still running throughout August. This month we're asking you to complete 5, 6-word book reviews to submit. For more information, see page 39.

Until next time,

Happy Reading!

Contents

Ten Quirky Questions with
Dr Karl Kruszelnicki

You are a renowned Australian scientist and celebrated author who loves to read. How can we encourage children (and their parents) to read more books?

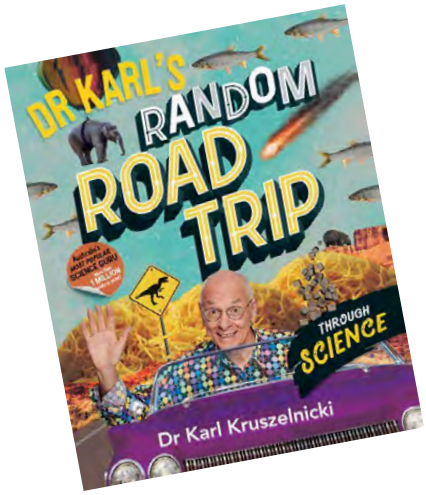
Easy! Read to kids, read with kids, and share books with kids that are related to popular movies. That will get you started off. Harry Potter & Lord of the Rings lead onto all sorts of other books. Our sons and daughters also get us into all sorts of books we didn't know of.

You have worked many jobs in many different fields, including roles as a doctor, taxi driver, roadie and engineer. But what did you want to grow up to be when you were young?

I really had no idea! I did like reading science fiction and so I wanted to fly around in space. Once I realised that people died, I wanted the aliens to come and visit me and then we'd fly around close to the speed of light and never age. My career has been like a paddle pop stick in the gutter of life on a rainy day. Rocked by currents, this way and that way, I had no idea where I would end up!

Many people ask you interesting and mind-boggling questions. What is the most weird/interesting question you have ever been asked?

About a year ago I was giving a talk at a library in Brisbane and a 10 year old student asked 'Why are whales so big?'. I didn't know, so I went looking! It turns out whales are as big as a creature can be while still being able to feed itself. If they were any bigger they couldn't feed themselves! So in a way they are a top predator, protected by their size. There are two ways whales feed – either using big teeth they just chomp animals like squid OR they lunge through water with their mouth open and pick up krill, which is called filter feeding. When a whale does filter feeding it can DOUBLE its weight. It's astonishing!



Your book 'Brain Food' provides us with much food for thought. We would like to know, how do you make the perfect cheese sandwich?

Well first you have to have bread, and there are many different types of bread. As a school kid I used to eat black bread and they used to think I was weird because everybody else had white bread! Then you've got your cheese. I used to like cheddar cheese, still do, but now I'm in love with, both soft cheeses from France and hard, peppery cheeses of Italy. I'm following the rule that if a little here is good, then a little more is better. Put all your cheese inside the sandwich, put a bit of butter on the outside and melt it in a squashy press or jaffle maker, and then you've got your ultimate goodness!

'Dr Karl's Random Road Trip through Science' is your latest book. Road trips are a great way to holiday in Australia. What is your ideal road trip destination and what would you find there?

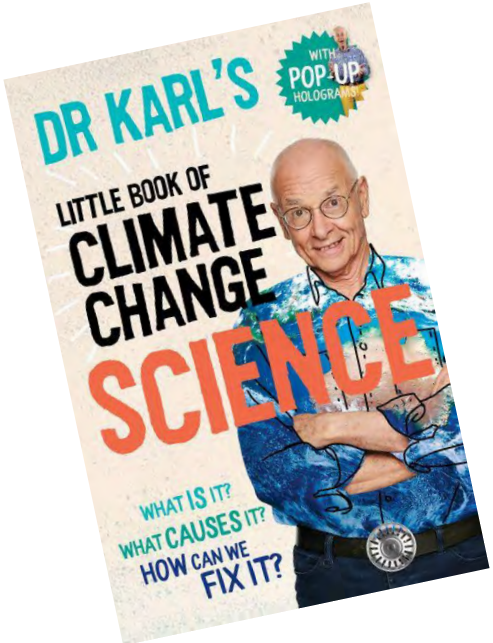
The Central Deserts of Australia. I was working as a doctor at the Kid's Hospital and working 100 hours a week, not seeing my new born baby or my beloved wife, so we decided to hit the road, take off and go outback! I just love the desert! People say what is there to see? And the answer is - go there and you will see. Besides the beauty of the deserts, one thing I really loved was how we finished every single night. Have an early dinner, pack everything away, get the tent ready, then lay down a big ground sheet and put a blanket on. For the first 90 minutes we would look for satellites, and we'd normally see 10 maybe 15 satellites every hour. For the next 90 minutes we'd watch meteors and normally we'd see 10 meteors every hour. We'd then go to bed tired but happy. The sky was our TV set. Here's something for you – why is the sand of the Australian outback red? Because it's rust. It rusted because of the great oxygenation which happened over 2 and bit billion years ago. Look it up!

Chatting with Dr Karl Kruszelnicki

You are an advocate for action on climate change and help people understand the importance of reversing the global heating crisis. What small steps can we take to play our part in helping heal the Earth?

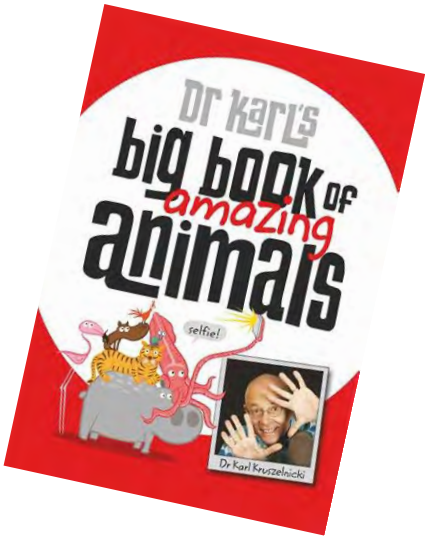
Firstly, climate change is real. And we can reverse it. Go to drawdown.org and it will take you through how you can firstly, stop putting carbon dioxide in the atmosphere and secondly, reverse it and reverse the effects of climate change. So, the first message of hope is that we can reverse global warming. The second message of good hope is that the students of today are the smartest humans ever in the history of the human race. This is called the Flynn Effect. Since the 1930's, when they first started measuring, we've been finding that IQ has been going up by 9 points every generation.

The third message of good hope is we are living in the most peaceful time ever in the history of the human race. You might be thinking 'how can you say that?!' Well in 755AD a revolt occurred in China with the Chinese Emperor killing one in every three people in China, or one in every six in the world. In the 1300's Genghis Khan, to build the world's largest empire, killed one in every nine person alive on Earth. So why do we believe we are living in such bad times? I was part of the problem - commercial media. The motto of commercial news is: if it bleeds it leads. So, three messages of good hope.



In your book 'Karl, the Universe and Everything' you dedicate a whole chapter to the Smell of Books! (We love the smell of books at the library here!). Do you have a favourite book? Why is it your favourite?

Two books and both of them are sciencey. One was an astronomy book somebody gave me at a birthday party. I read it at the party. I learnt we had a moon, and there were planets in our solar system, and that we were orbiting a star, and our star is one of a couple hundred billion in the galaxy, and our galaxy is one of a couple hundred billion in our universe. And that just blew my mind! The other was one of the first astronomy books I read called 'Thunderbolt of the Spaceways'. It's about a person who rode around in this ship which was called the Audacity and he just rode around having adventures. That really impressed me, and as a result I've been reading science fiction ever since. I like science fiction because it blows my mind!



In your book 'Dr Karl's Big Book of Amazing Animals' there are many weird and wonderful animals! What is your favourite animal and why?

My favourite animal is the mantis shrimp that lives on the Great Barrier Reef and there are two amazing things about it. Firstly, it has a little hammer which it bangs to make a noise. That sound generates a temperature hotter than the surface of the Sun! Its hammer moves through the water so quickly that it creates bubbles that eventually collapse. As they collapse they generate temperatures over 5,500°C! Secondly, humans have three different colour receptors in their eyes (red, blue & green), horses and dogs only have two, but the mantis shrimp has a world record of 16! So they can look at a boring bit of ocean floor and see food. They can see things we can't.

Chatting with Dr Karl Kruszelnicki

A while ago you did a research project on belly button fluff and won an award for it. How interesting! Do you have any advice for our young, budding scientists?

Yes, experiments are real. You can't fool nature. TV, YouTube, CGI are all terrific now days but do the experiment and you know it's real. For National Science Week 2020 we're doing something called a watermelon experiment where you try to make a watermelon implode (not explode). Get a regular watermelon, about the size of a human head and put a rubber band around it. Repeat 300 times. Suddenly the watermelon implodes. Why? Do the experiment and find out!

DISCLAIMER: parental/guardian supervision required.

You have written many books over the years to educate people and popularise science. What is one thing you wish everybody knew?

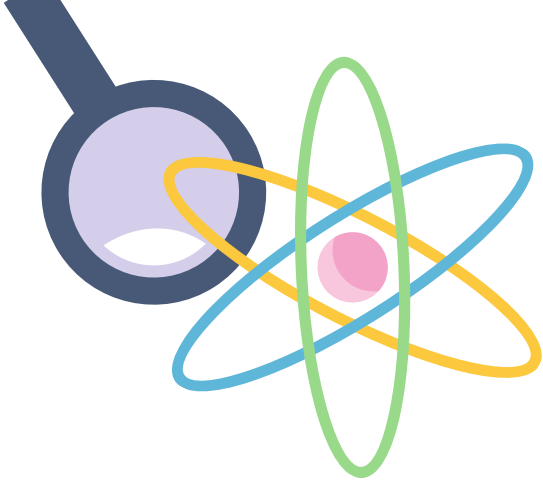
I got this from the scientist Richard Feynman and his book 'Surely You're Joking, Mr Feynman'. He said, if every library in the world was gone and civilisation crumbled and we could only pass one fact on to future generations, it is this fact – everything is made of atoms, which if they're too close repel each other and if they're too far apart attract each other. Why do they repel? Why do they attract? And what are they? This single sentence is something everybody should know and understand.

You grew up a refugee in Australia and were bullied for many of your formative years. Do you have any advice you would give your younger self, and our young readers?

The Greeks, Romans, and I'm sure every other society in the world, got it right – a healthy mind in a healthy body. A healthy mind includes being curious, trying to learn as much as you can about the world around you, trying to have friends, and being friendly with your family and everybody else. For a healthy body you want to do all sorts of exercise and change them around. So you want to have a mixture of a healthy mind in a healthy body, and on that background, the time is always passing. You can always get more money, you can always get more clothes, but you can't get more time. If you try to make each day fun, rather than lying around weeping tears, try to make the best of it and take the long term view and keep a healthy mind and body. I wish I had done that.

When you were younger you spent much of your time at your local library. What can you find in a library and nowhere else?

You can find free books in a library. But one thing you can also find is – librarians! The librarians were wonderful to me at the Wollongong Library. I did a lot of reading and found myself drifting and reading a lot of fairy tales. The librarians got the complete set of fairy tales for the whole world, for all 200 countries! They realised I was interested in it, and what they didn't have they would order in for me. I started reading and realised that all countries have got similarities and differences. Similarities are what makes us together and differences are what makes us special. From here I automatically graduated onto the ultimate fairy stories, which are science fiction. The librarians kept the library stocked with science fiction stories for me. So thank you librarians of the universe. You are the passers on of knowledge. You are the holders of knowledge from one generation to the next. You rock.



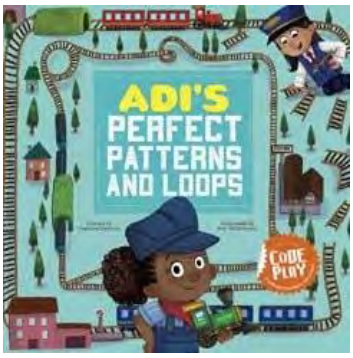
If you were stuck on a deserted island, what three things would you take with you and why?

Well obviously nutrition – food, water, a bit of cheese and fruit of course. Secondly, a friend. We humans needs friends and do better with friends. And thirdly, I'd follow the example of David Bowie, who whenever he was on tour would take with him his own private library of 1,500 books!

Dr Karl is a prolific broadcaster, author and Julius Sumner Miller fellow in the School of Physics at the University of Sydney. Check out his website **drkarl.com** for more science stories, videos and podcasts. You can also book a Science Q&A session for your school!

Science, Picture Books

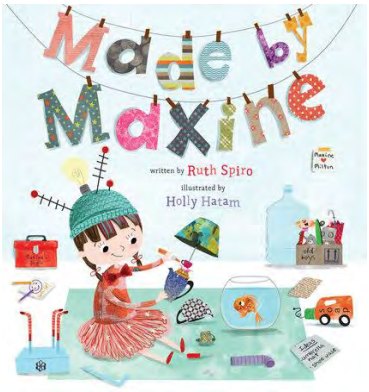
Want to inspire a love of science in your little ones? Look no further than these great picture books, full of simple science concepts, fantastic scientists and incredible stories.



Adi's Perfect Patterns and Loops

by Caroline Karanja
Illustrated by Ben Whitehouse

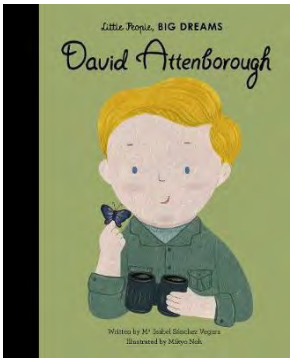
Best friends Adi and Gabi love to play with Adi's toy train. Round and round it goes-choo choo! Watching it loop the track gives the girls an idea. These scientific thinkers use their computer coding knowledge to put the train to work!



Made By Maxine

by Ruth Spiro
Illustrated by Holly Hatam

Maxine loves making new things from old things. She loves tinkering until she has solved a problem. She also loves her pet goldfish, Milton. So when it's time for her school's pet parade, she's determined to create something that will allow Milton to march with the other animals.



David Attenborough

by Maria Isabel Sanchez Vegara
Illustrated by Mikyo Noh

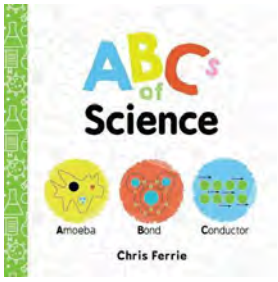
Little David grew up in Leicester on the campus of a university, where his father was a professor. As a child, he spent hours in the science library, collating his own specimens and creating a mini animal museum.

When he was old enough to go to university, he studied science and zoology - but what he wanted most of all was to be close to the animals he was studying. So, he started working in television, visiting animals in their natural habitats and telling the world the untold stories of these animals.

Ara, the Star Engineer

by Komal Singh
Illustrated by Ipek Konak

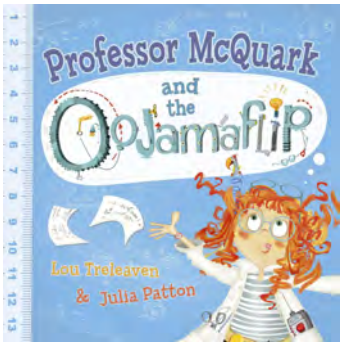
Ara loves numbers- BIG numbers. She wants to program her droid DeeDee (Beep!) to count all the stars in the sky, but she's not sure how. In this whimsical adventure, Ara visits Innovation Plex to enlist the help of four tech trailblazers - inspiring real-life engineers at Google who are today's equivalents of Ada Lovelace and Katherine Johnson. With her new friends, she explores the algorithm of success: coding, courage, creativity, and collaboration. In the end, Ara discovers that the superpower of science and friendship can solve any problem, and be lots of fun.



ABCs of Science

by Chris Ferrie

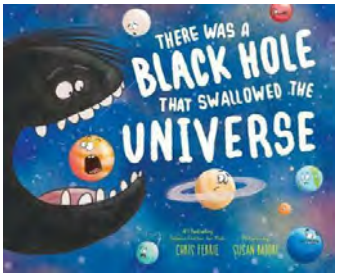
A perfect introduction to science for infants and toddlers. Remember, it only takes a small spark to ignite a child's mind.



Professor McQuark and the Oojamaflip

by Lou Releaven
Illustrated by Julia Patton

It all began on a windy day in Melbourne when I was worried our little bantam hens would blow over the fence! Now that sounds like a story!

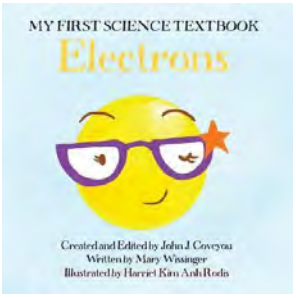


There Was a Black Hole That Swallowed a Universe

by Chris Ferrie
Illustrated by Susan Batori

There was a black hole that swallowed the universe. I don't know why it swallowed the universe - oh well, it couldn't get worse. There was a black hole that swallowed a galaxy. It left quite a cavity after swallowing that galaxy. It swallowed the galaxies that filled universe. I don't know why it swallowed the universe - oh well, it couldn't get worse.

Science, Picture Books

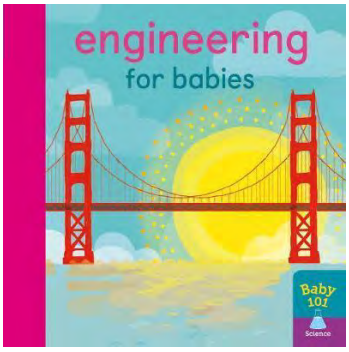


Electrons

by Mary Wissinger

Illustrated by Harriet Rodis

Spark scientific curiosity in kids of all ages! Learn about some of the most fundamental concepts in science BEFORE the social pressure and intimidation of formal schooling sets in. Ellie the Electron's story is the stuff of Chemistry legend, full of mystery and excitement.



Engineering for babies

by Jonathan Litton

Illustrated by Thomas Elliott

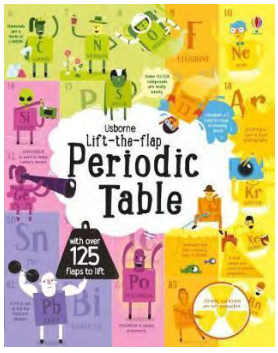
Babies will love learning all about engines, bridges and tunnels, and how they are made.

Marie Curie

by Maria Isabel Sanchez Vegara

Illustrated by Frau Isa

When Marie was young, she was unable to go to college because she was a woman. But when she was older, her scientific work was respected around the world. Her discoveries of radium and polonium dramatically helped in the fight against cancer, and she went on to win the Nobel Prize for Physics!

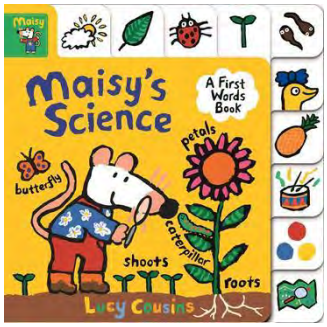


Lift-The-Flap Periodic Table

by Alice James

Illustrated by Shaw Nielsen

Everything in the Universe is made up of just 118 chemical elements, all of which are listed in the Periodic Table. Lift the flaps in this informative book and discover which elements are crucial to life, which are smelly, explosive or radioactive and lots more.



Maisy's Science

by author illustrator, Lucy Cousins

Join Maisy as she investigates the world around her. Each spread is themed around different early science concepts; weather, changing seasons, plants and insects, growing, life cycles, parts of the body, textures, sounds and electricity.

Peppa in Space

by Peppa Pig

It's space day at playgroup and Peppa, George and their friends are learning all about the moon!

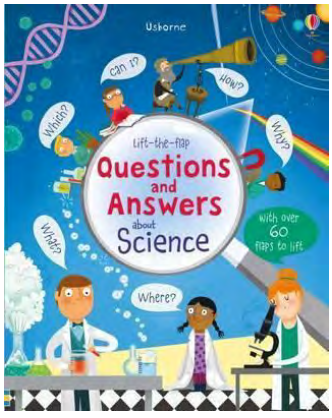
The children are so excited when Madame Gazelle takes them to the space museum to learn how to be real astronauts- Peppa loves jumping up and down on the moon!

Whatcha Building?

by Andrew Daddo

Illustrated by Stephen Michael King

The old milk bar on the corner is coming down to make way for something new. Little Davey Durak is gathering scrap - a short piece of wood here, a long piece there. But what's Davey building? Bruce the builder wants to know, but Davey won't tell ...



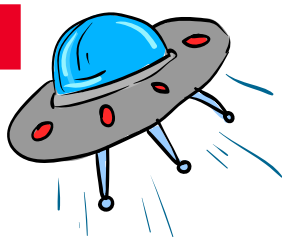
Flip-The-Flap Questions and Answers About Science

by Katie Daynes

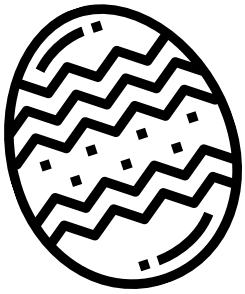
Illustrated by Marie-Eve Tremblay

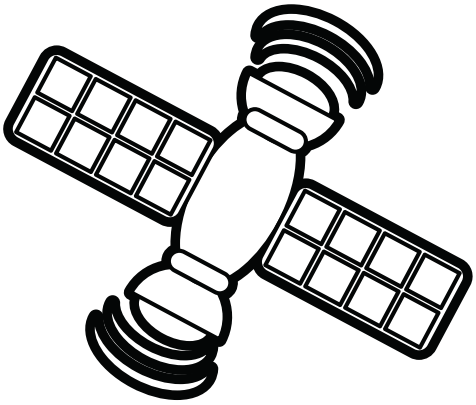
An interactive book with over 60 flaps revealing answers to all kinds of questions about science. Children can lift the flaps to discover the answers to questions such as How do bodies grow? Why do astronauts float? Where does lightning strike? and lots more.

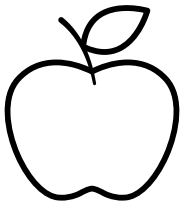
What would you see in space?

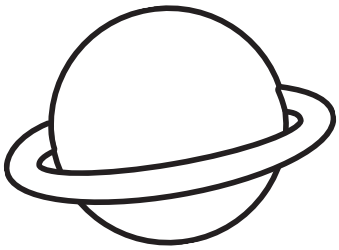


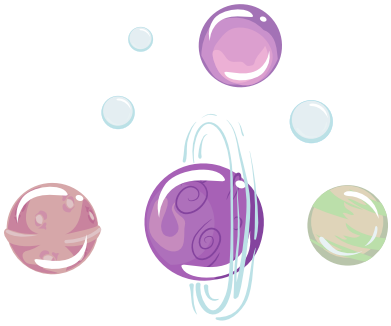
If you were an astronaut, what would you see in space?
Colour in the pictures of the things you would find in space.

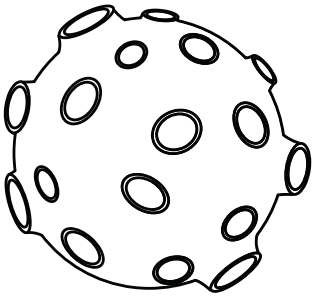


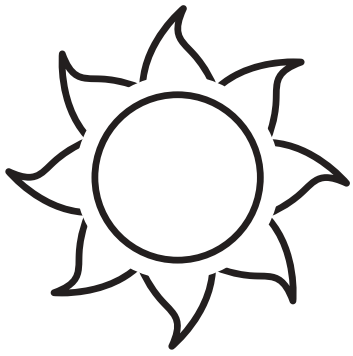


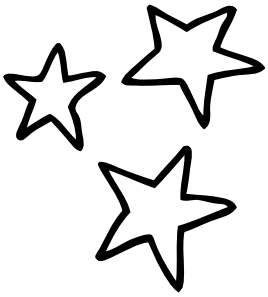


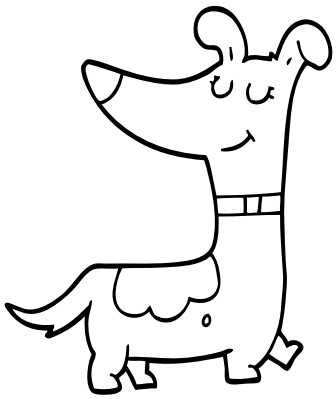


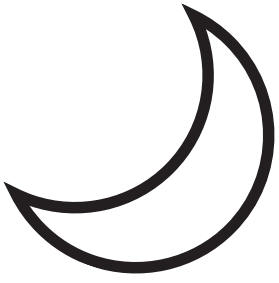


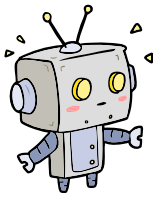




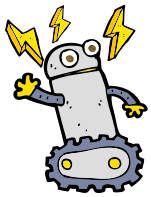






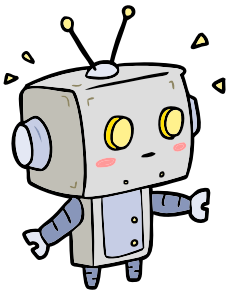


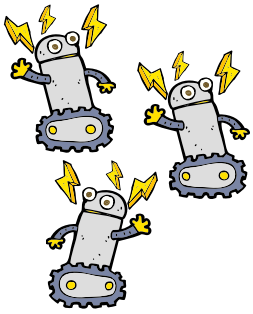
Fun with Robots!

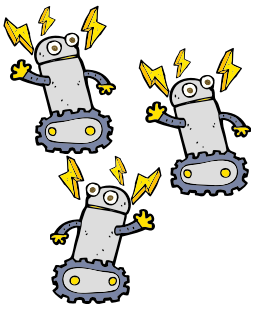


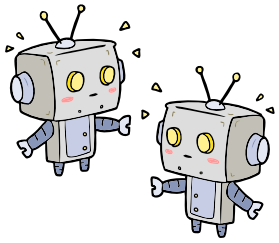
Let's add and subtract some robots!

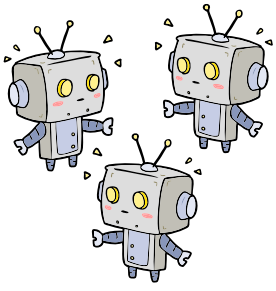
Add or subtract the robots.
Write the correct answer on the space provided.

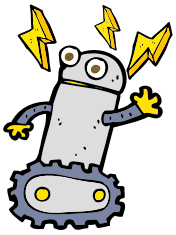


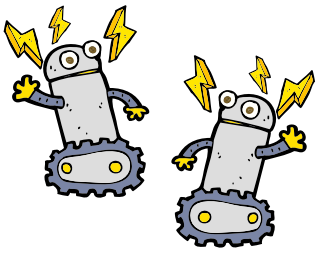


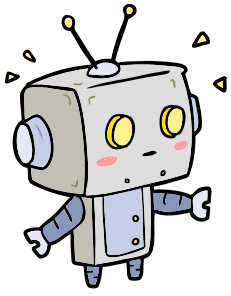












Little Bang Discovery Club on Demand

Introducing Little Bang Discovery on Demand! This series of four videos is presented by Wendy from Children's Discovery Museum. The program is designed to engage preschool children and their caregivers with simple science concepts and science experiments using materials from around your home. Give it a go, we know you'll love it!

Session 1 - Collecting and Classifying

We learn how to sort toys and socks and then go on a treasure hunt to make our own Discovery Box before finishing with the at home task of making a collection.

Session 2 - Measuring and Recording

In this session, we review the collections and then start measuring. We compare the lengths of items in the Discovery Box and measure the children's height with a chopstick or spoon and then in centimetres. We make a coat-hanger balance and use it to compare the weights of Discovery Box items and other things around the house.

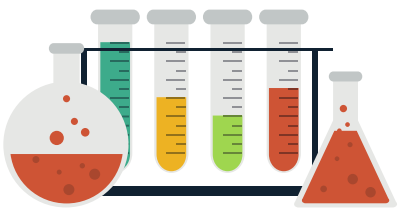
Session 3 - Experimenting

In this session, we do a sliding activity with a ruler and pencil. Then we try a whole host of experiments - the Joys of Attraction, Musical Coat Hanger, Sink and Float and Sink and Salt. We encourage families to think about why they got the results they did.

Session 4 - Science Fair

In the final session, we start discussing the science behind the experiments in the last session, and talk about science fairs. Then we see how to set up some more experiments - Disappearing Pencil, Magnifying with a glass of water, Kissing Balloons and Raw or Boiled? We discuss the science behind these experiments and how science is a just a systematic way of answering questions. Congratulations! You're a scientist!

To view the videos click HERE or head to https://www.cityofparramatta.nsw.gov.au/national-science-week



Little Bang Discovery Club

Collect @ Home

Scientists collect things; they collect information, data and samples. Science is also a collection of known facts, and a process by which we come to know things about the natural world.

Observing and Collecting

Scientists collect things that they are interested in knowing more about, or things that provide evidence for their research. In the process of collecting, scientists learn, and so will you! We can apply our own skills in identifying, selecting, discriminating, evaluating, classifying (sorting) and arranging items.

Make a collection

You can create your own collection and bring it to show everyone at the next session. We'd like you to explain what your collection means to you. Why did you decide to collect these items – did one special item spark the idea for your collection?

Record your observations

Use the notebook and pencil in the Discovery Box to write down information about your collection such as when it was collected, where it was collected, what you observe about the items in it.

Example Collection: Leaves from my park

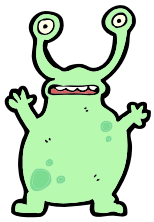
Children's Discovery
ABN: 16 103 244 408
www.childrensdiscovery.org.au
info@childrensdiscovery.org.au

The Little Bang Discovery Club is an initiative of Children's Discovery and Randwick City Council.

This Inspiring Australia initiative is supported by the Australian Government.

Science Fiction!

Interested in something a bit out of this world? We've pulled together some of the best science fiction books in our collection, across all ages, so you can delve into imaginary worlds where whole galaxies of fun and fascination await.



The Little Prince

by Antoine de Saint-Exupery

On the surface it's a simple story, but this little prince is as wise as they come and his messages of compassion and goodwill continue to endure. One of our all time favourites and an absolute classic of the sci-fi genre!

Artemis Fowl

by Eoin Colfer

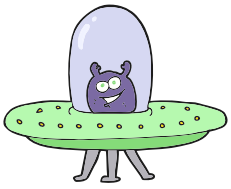
Just twelve years old and Artemis Fowl is a criminal genius, plotting to restore his family's fortune with a spot of corruption and kidnapping. Kidnapping a fairy for ransom, to be precise.

Artemis Fowl has discovered a world below ground of armed and dangerous - and extremely high-tech - fairies. But he may have underestimated their powers. They will fight back. Is the boy about to trigger a cross-species war?

Zombie Bums from Uranus

by Andy Griffiths

Zack Freeman is back ... and so is his crazy runaway bum. But this time they're not fighting each other–this time they've joined forces to save the Earth from the most serious threat it has ever faced: an invasion of zombie bums ... zombie bums from Uranus.



D-Bot Squad Dino Hunter

by Mac Park

Dinosaurs are back, and on the loose! It's up to D-Bot Squad to catch them.

D-Bot Squad is written to get kids reading - and keep them reading. Combining un-put-downable content with success-oriented readability, D-Bot Squad will have even the most reluctant readers devouring all eight books.

A Wrinkle in Time

by Madeleine L'Engle

When Charles Wallace Murry goes searching through a 'wrinkle in time' for his lost father, he finds himself on an evil planet where all life is enslaved by a huge pulsating brain known as 'It'. How Charles, his sister Meg and friend Calvin find and free his father makes this a very special and exciting mixture of fantasy and science fiction, which all the way through is dominated by the funny and mysterious trio of guardian angels known as Mrs Whatsit, Mrs Who and Mrs Which.M.

Howl's Moving Castle

by Diana Wynne Jones

In the land of Ingary, where seven league boots and cloaks of invisibility do exist, Sophie Hatter catches the unwelcome attention of the Witch of the Waste and is put under a spell. Deciding she has nothing more to lose, she makes her way to the moving castle that hovers on the hills above Market Chipping. But the castle belongs to the dreaded Wizard Howl whose appetite, they say, is satisfied only by the souls of young girls…

Ricky Ricotta's Might Robot Series

by Dav Pilkey

Young readers will cheer as Ricky and his enormous flying Robot friend soar through the air and battle the diabolical Dr. Stinky, an evil scientist who threatens to take over the world!

Zita the Spacegirl Series

by Ben Hatke

When her best friend is abducted by an alien doomsday cult, Zita leaps to the rescue and finds herself a stranger on a strange planet. Humanoid chickens and neurotic robots are shocking enough as new experiences go, but Zita is even more surprised to find herself taking on the role of intergalactic hero. Before long, aliens in all shapes and sizes don't even phase her. Neither do ancient prophecies, doomed planets, or even a friendly con man who takes a mysterious interest in Zita's quest.

Science Fiction

Galaxy Zack Series

by Ray O'Ryan

Zack makes the big move from Earth. He is already nervous about starting school and making new friends. Fortunately, when Zack arrives at Sprockets Academy for his first day of school, he meets and befriends Drake Tucker, a Nebulite boy who also loves to explore and learn about the planets.

Diary of a Minecraft Zombie Series

This series gives insight into the life of a 12-year-old Minecraft Zombie. Zack Zombie has to deal with the usual angst that comes from being a pre-teen zombie attending Minecraft Middle School. With the help of his human friend Steve, Zack learns valuable life lessons that help him deal with the challenges of zombie life.

The Giver

by Lois Lowry

Twelve-year old Jonas has never thought there was anything wrong with his world. But from the moment he is selected as the Receiver of Memory, Jonas discovers that their community is not as perfect as it seems.

Star Wars Jedi Academy Series

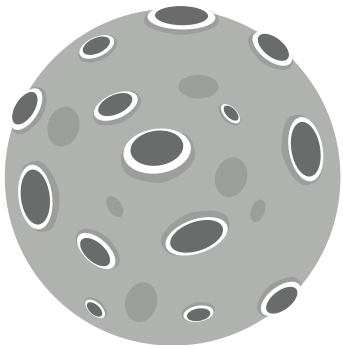
by Jeffrey Brown

Roan's dream is to leave home and attend Pilot School. But just as Roan is mysteriously denied entrance to Pilot School, he is invited to attend Jedi Academy - a school that he didn't apply to and only recruits children when they are just a few years old.

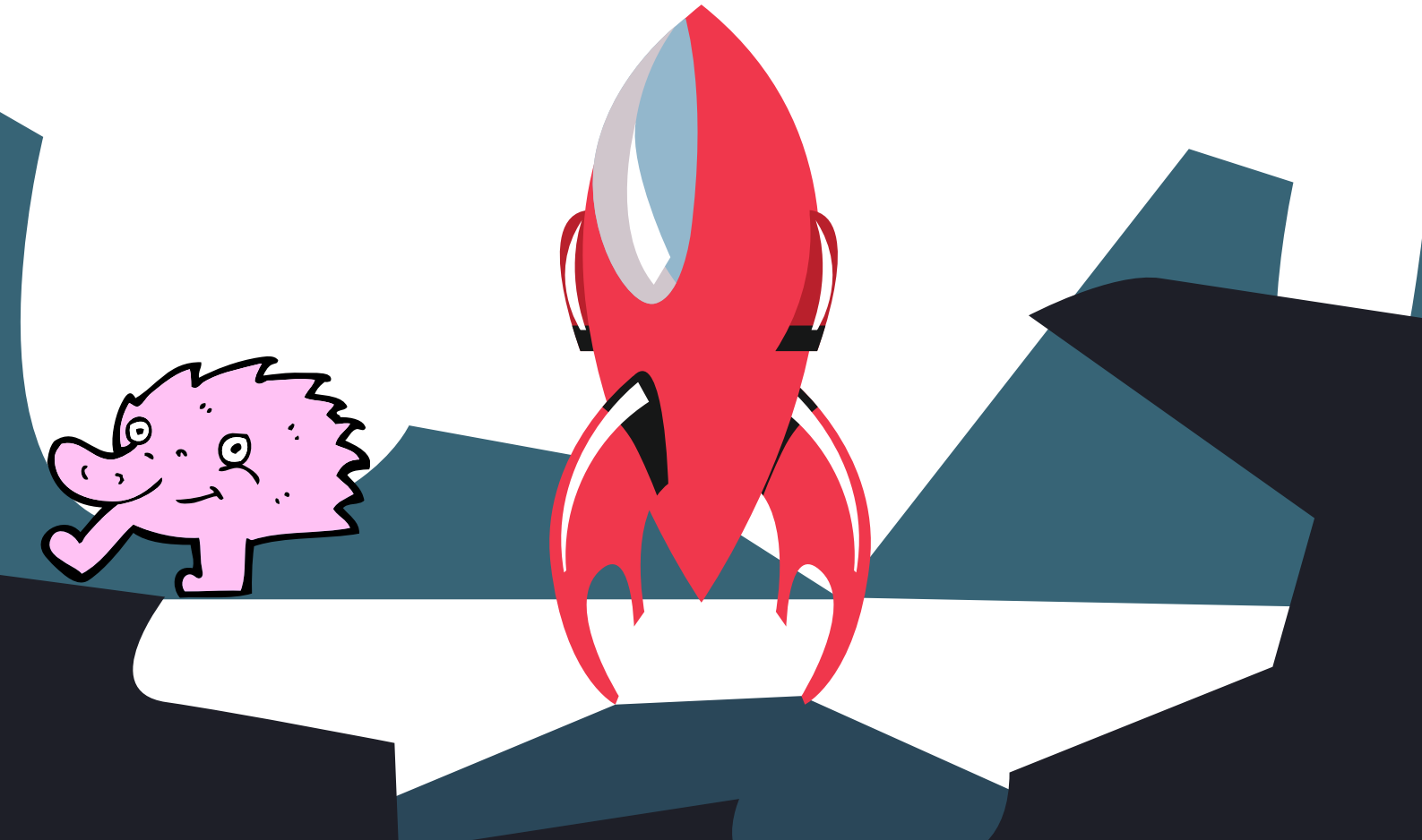
That is, until now…

In Roan's first year at Jedi Academy, under the tutelage of Master Yoda, he learns that he possesses more strength and potential than he could have ever dreamed. Oh, and he learns other important things too - like how to make a baking soda volcano, fence with a lightsaber, slow dance with a girl and lift boulders with the Force.

Science Fiction Drawing Fun!

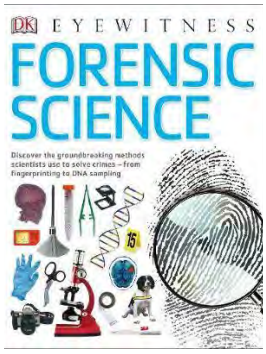


We've started you off, now finish the scene by drawing some wacky space creatures to create a 'Science Fiction' themed scene.



Junior Non-Fiction: Science!

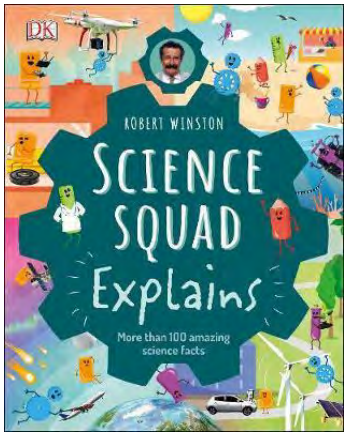
Science books can be found on the non-fiction shelves at Dewey number 500. The topics are so wide-ranging that it can be difficult to choose them, but we love to find and select books that are big, bold and fascinating. Here's a few of our more recent favourites.



Forensic Science

by Chris Cooper

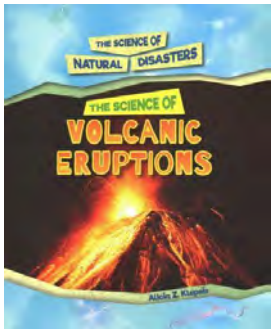
Explore the fascinating, and sometimes gory, world of forensics, where science helps crack the case. How do you know if a red stain is blood or ketchup, or whose blood it is? Can computers really recognize your face in a crowd? Why are fingerprints so important in an investigation?



Science Squad Explains

by Robert Winston

Have you ever wondered what makes electricity? Or what's inside an atom? Or how high the Moon really is? Or what light is made of and why you need it? This is the perfect visual introduction to the key concepts children need to know about all things STEAM.



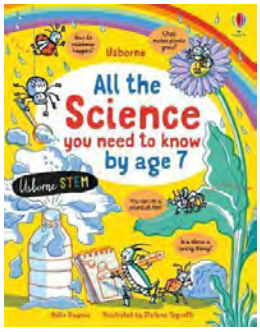
The Science of Volcanic Eruptions

by Alicia Klepeis

Volcanic eruptions are natural disasters with fierce characteristics. They have the power to spew giant clouds of ash and lava into the air, trigger landslides that cover entire towns, and change life as we know it forever.

Discovery Box (Magazine)

Discovery Box teaches kids that reading doesn't always mean long texts or stories. Through thoughtfully crafted captions and images, kids aged 9-12 can discover the world while practicing other modes of reading.

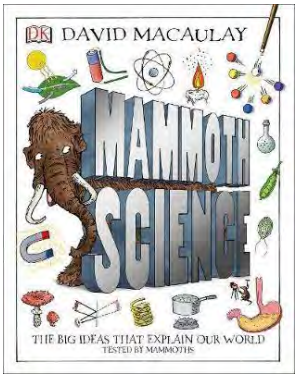


All the Science You Need to Know Before Age 7

by Katie Daynes

Illustrated by Stefano Tognetti

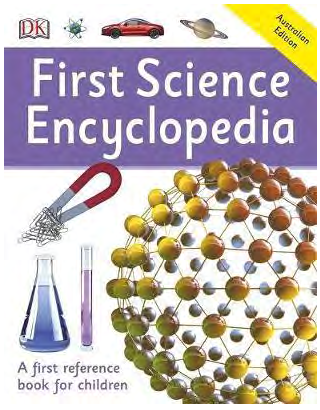
This beautifully illustrated book is a perfect introduction for young children. Budding scientists can explore the world around them, from plants and animals to magnets and mirrors - and try some hands-on experiments along the way. With Quicklinks to specially selected websites with videos and quizzes.



Mammoth Science

DK Publishing

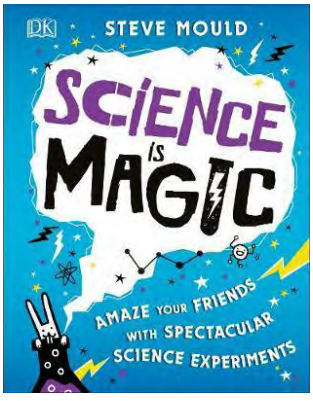
From the interior of an atom to the solar system and beyond, the mammoths seek to understand the science!
These intrepid science demonstrators will go to incredible lengths to educate and entertain. They wrestle with magnets to understand their powerful force, make mammoth models of different materials to explore what gives them mass, and step into an X-ray machine to reveal the bones beneath their woolly exterior.



First Science Encyclopedia

DK Australia

This colourful visual encyclopedia explains different sciences using amazing photography, easy introductions and fascinating, clear explanations. The solar system, genetic inheritance, plant biology, weather - these are just a few of the key areas of science that are included in this great new encyclopedia for kids.

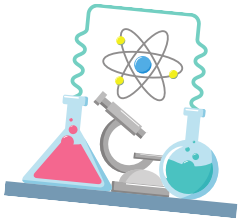


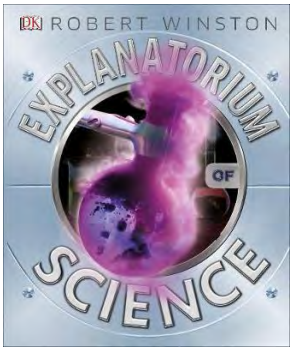
Science is Magic

by Steve Mould

Learn how to bend water with a balloon, turn water into juice, make a glass beaker disappear in oil, and wow your friends with levitating tinsel!

Junior Non-Fiction: Science!

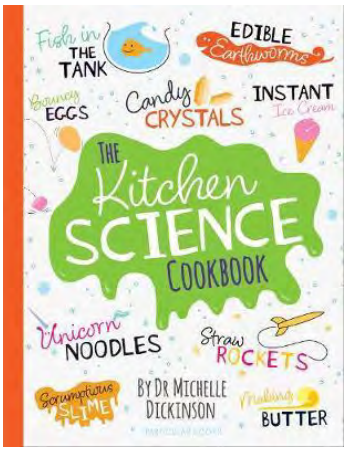




Explanatorium of Science

DK Publishing

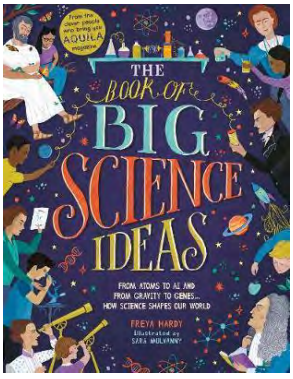
Watch as mixtures merge and matter changes state. Discover how some chemical changes can be reversed, yet others can't, and why some reactions produce a bang! Understand the tricks that light plays and unlock the secrets of electricity to find out how it powers your home.



The Kitchen Science Cookbook

by Dr Michelle Dickinson

No need to be a science expert these easy-to-follow recipes make mind-blowing science experiments fun for everyone. From sticky ice and raising raisins to balloon science and scrumptious slime, nanotechnologist and educator Michelle Dickinson shows that we can all be scientists, no matter how young or old.



The Big Book of Science Ideas

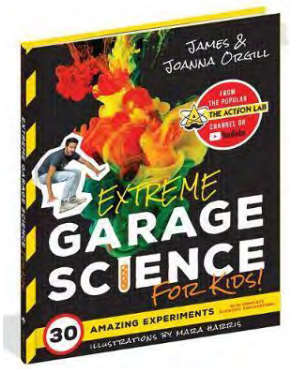
by Freya Hardy

Illustrated by Sara Mulvanny

What is everything made of? What is our place in space? Can machines think? And why does your hat come hurtling back down after you've chucked it into the air? This book has the answers!

Double Helix Magazine

Double Helix is a science magazine from CSIRO for kids and early teens. It's perfect for girls and boys aged 8 to 14 years. Packed full of stories and things to make and do, Double Helix promotes critical thinking, strengthens literacy skills and fosters an interest in the fields of science, technology, engineering and maths.

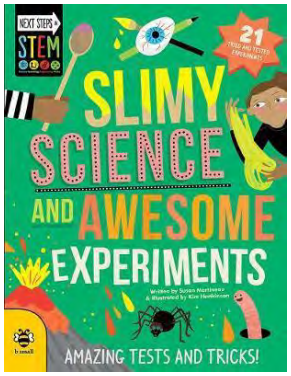


Extreme Garage Science for Kids!

By James Orgill & Joanna Orgill

Illustrated by Mara Harris

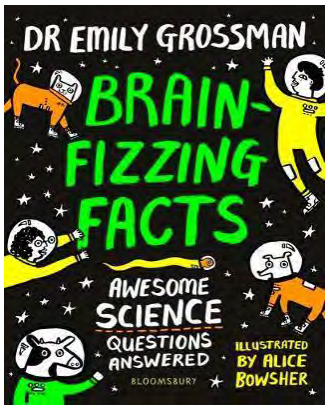
For years, James Orgill has amazed millions of YouTube fans with zany experiments in his popular videos on The Action Lab channel. Now, for the first time, you can do these experiments at home! Extreme Garage Science for Kids! is jam-packed with killer projects and irresistibly nerdy explanations of how the world works. Draw on water.
Remove the iron from your Cheerios. Defy Newtonian physics! Bursting with fun illustrations and full-color, photographed step-by-step instructions, Extreme Garage Science for Kids! is a thrilling scientific adventure for young minds everywhere!



Slimy Science and Awesome Experiments

by Susan Martineau
Illustrated by Kim Hankinson

Amaze your friends and take your next steps in STEM with these weird and wonderful experiments. You don't need any special equipment to get started. Test your tastebuds with Sense-sational Science.



Brain-fizzing Facts : Awesome Science Questions Answered

by Dr Emily Grossman

Illustrated by Alice Bowsher

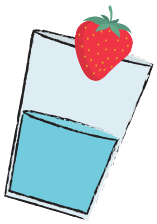
Why is your elbow called your funny bone? How could you escape the grip of a crocodile's jaw? Which animal can breathe through its bottom? And how do these things all link together? This brilliant book will have eyebrows raised and jaws dropping as it uncovers the amazing scientific explanations behind all sorts of questions that can pop into our heads.

Leonardo's Science Workshop : Invent, Create, and Make STEAM Projects Like a Genius

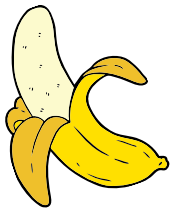
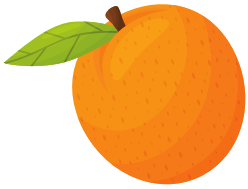
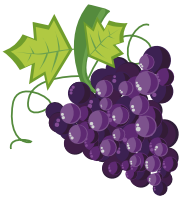
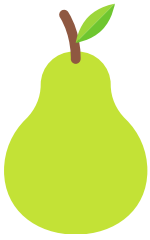
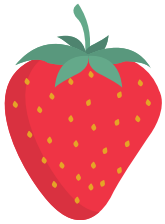
by Heidi Olinger

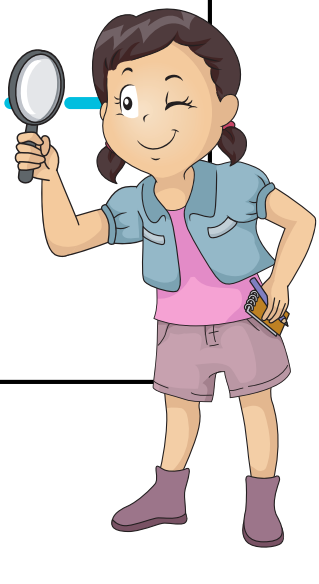
Leonardo's Science Workshop leads children on an interactive adventure through key science concepts by following the multidisciplinary approach of the Renaissance period polymath Leonardo da Vinci: experimenting, creating projects, and exploring how art intersects with science and nature.

Float or Sink?



Which of these fruits will sink or float?
Write your guess in the second column and
record the result!

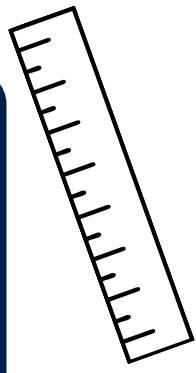
Fruit		Guess	Result
Banana			
Orange			
Grape			
Pear			
Strawberry			



Investigating an Apple

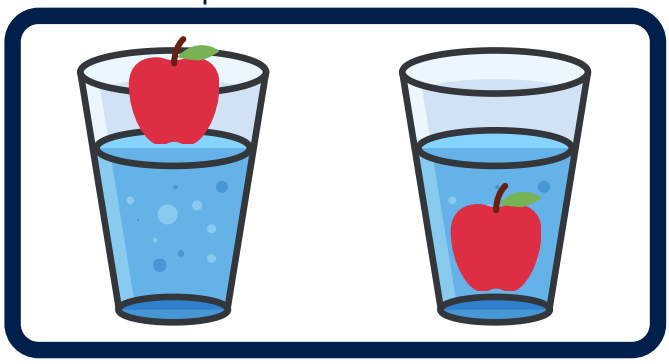
Grab an apple and, start experimenting!

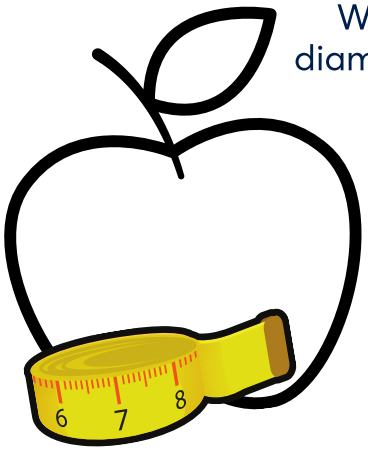
Measure your apple. How tall is it?



Draw your apple.

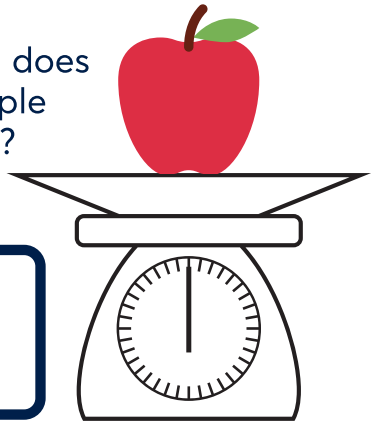
Does your apple sink or float when placed in water?





What is the diameter of your apple?

How much does your apple weigh?



Time to eat your apple! How does it taste?

Sweet **Sour**

Leave your apple out on a bench when you finish eating it.

Describe what you see the next day.

Did you enjoy the taste of your apple?

✓ ✗

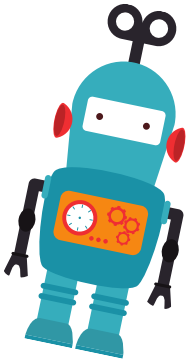
World Book

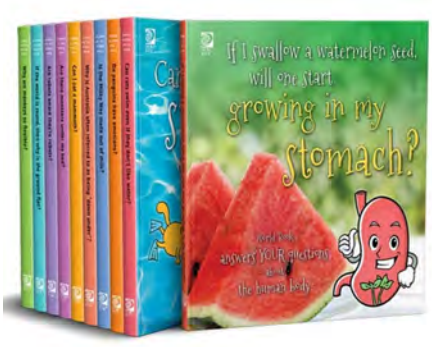
We've been working hard behind the scenes to ensure that as the library doors reopen, we have some fantastic new content for you. Our most exciting acquisition is our new World Book collection of junior non-fiction books.

These books and resources are in different formats, and cover many different topics. They have easily digestible text, even for the youngest of readers, and engaging layouts. We think they're engaging and entertaining and we hope you do too!

Robots

This STEM-focused series shows how these machines are becoming an ever-more-crucial part off our lives. Each volume uncovers the history behind robots and discusses how they may impact out future. Individual volume topics range from the everyday to the truly weird.



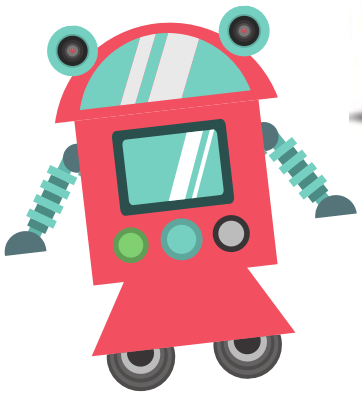


Answer Me This, World Book

Taste the World

Ugh! Yuck! and Whoa!

The Ugh! Yuck! and Whoa! series highlights the most extreme among them: the grossest, the deadliest, and the ugliest! Learning about lesser-known creatures they may never have seen before helps children to better understand ecosystems and the natural world.



Learning Ladder: Animal Homes

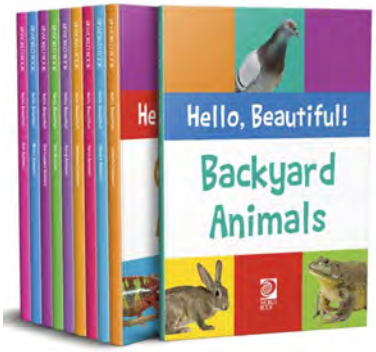
All books are from a child's point of view, answers questions with enough detail to satisfy youthful curiosity, and makes early learning a positive experience.

Learning Ladders is designed to reinforce reading skills and enlarge as well as improve the child's vocabulary.

Cool Tech

Natural Marvels

Natural Marvels takes readers around the globe to explore exceptional land features created by such forces as erosion and volcanic activity. Carefully written text breaks down sometimes complex processes into more easily understood segments.



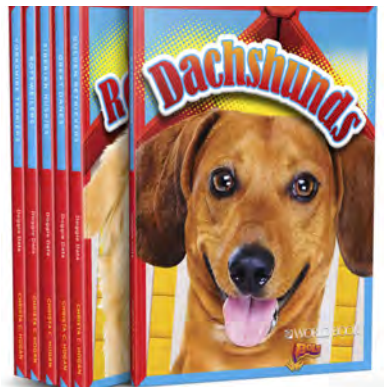
Hello, Beautiful!

It's a big, beautiful world out there, and we want young children to say "Hello"! Big, colourful photographs show off animals to their best advantage. Whether they can only take in the pictures while a grown-up reads to them or can make their way on their own through the simple text, early readers will have fun saying "Hello!" to a different animal with each turn of the page. As they go, they will begin to build a love and respect for the world around them. At the back of the book are basic facts about each pictured animal to help answer their questions.

World Book

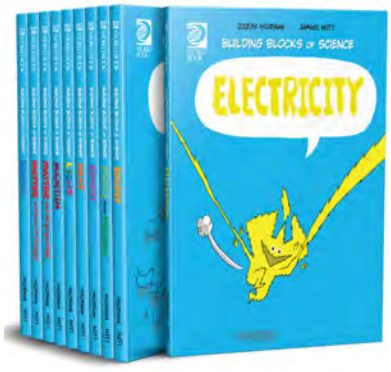
Earth's Changing Climate

Would you believe even rats are affected by climate change? Earth's Changing Climate debunks misconceptions about the causes and effects of climate change by providing fact-based, current evidence. Learning about climate change is an important step toward increasing environmental awareness in the generation growing up today.



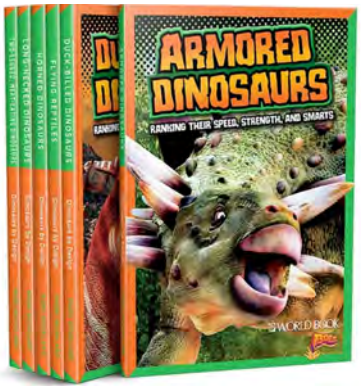
Doggie Data

Discover and explore, Dachshunds, Golden Retrievers, Great Danes, Rottweilers, Sibrian Huskies & Yorkshire Terriers!



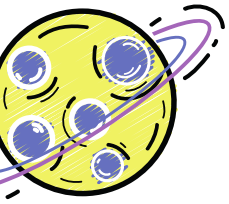
Building Blocks of Science: Physical

Features a whimsical character to guide the reader through a physical science topic.



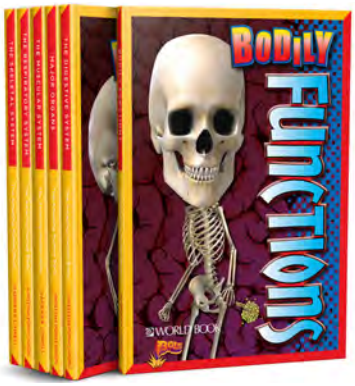
Dinosaurs by Design

From huge long necks to flying reptiles, prehistoric animals were amazing. Compare their features, and see which ones were the strongest, fastest, and hungriest!



Deep Space Discovery

Explore everything from the sun and other stars to the vast galaxies they make up. With up-to-date content, infographics, and closely levelled text, this series will have reluctant readers reaching for more.



Amazing Human Body

Learn how muscles move our bodies, how the respiratory system works, and allow us to live. Discover how digestion keeps us healthy, how bones allow us to stand and protect our organs. Explore the major organs that keep us alive and handle many functions of the human body.

Air Power

Militaries around the world use aircraft to defend and attack. Explore the fastest and most powerful military aircraft in the air today.

Adorable Animals

Colourful photography, growth charts and other infographics, and engaging text take readers on an adventure through the firsts of some of the world's most adorable animals.

My Sky Diary

Pick a spot around the house where you can see outside. Sit here during the day time, then draw what you see. Come back to the same spot at night and draw what you see. Compare your drawings. List down what things are the same and what things are different.

Day

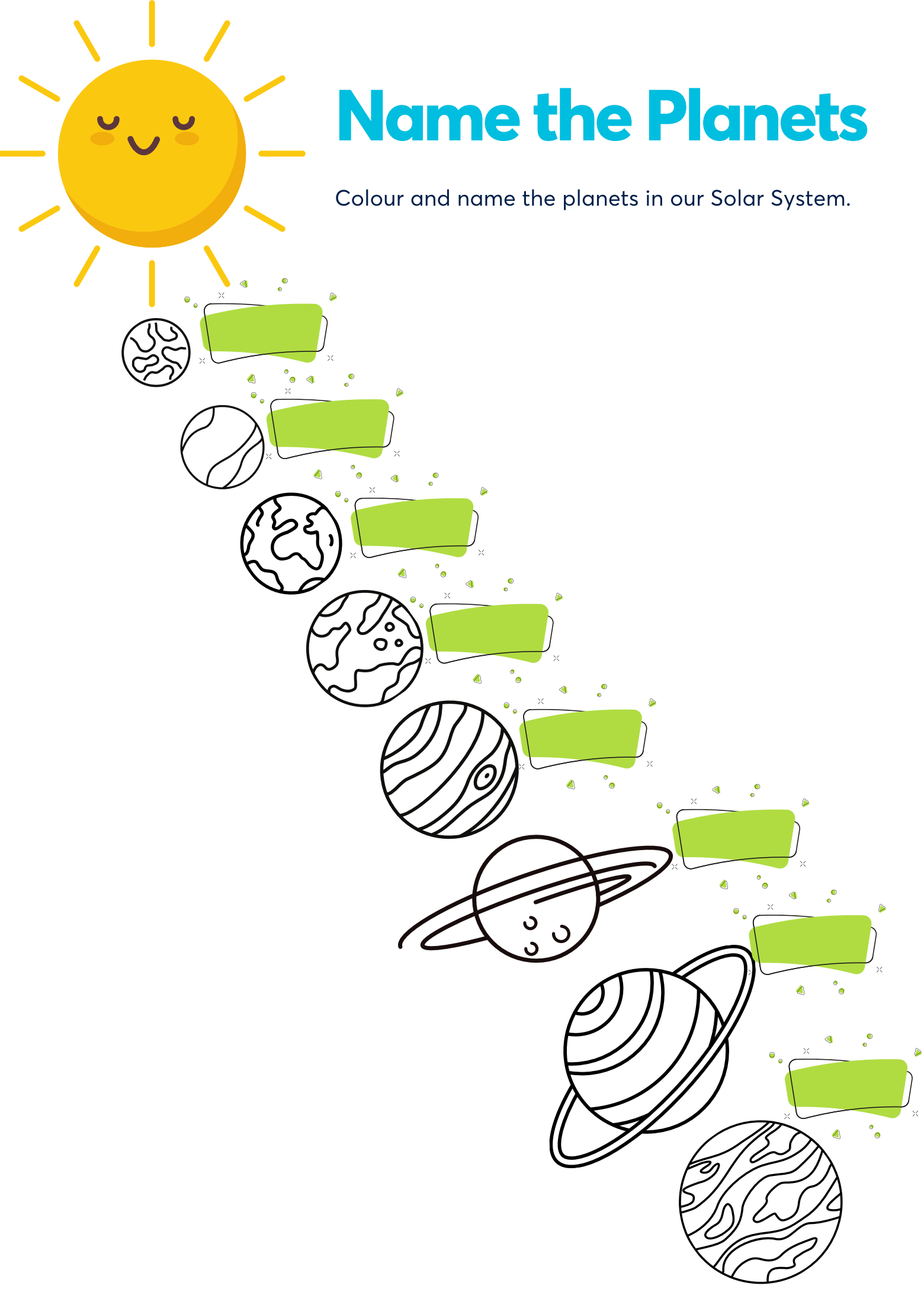
Night

Similarities

Differences

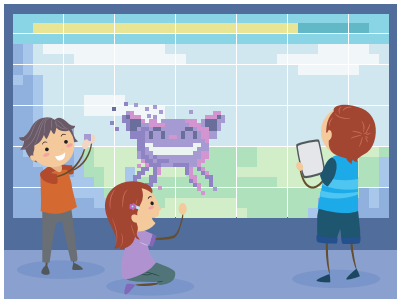
Name the Planets

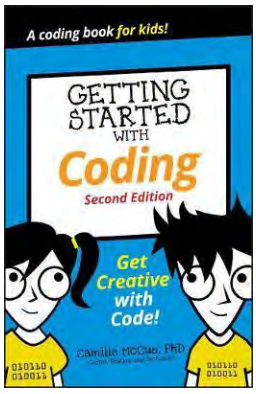
Colour and name the planets in our Solar System.



Junior Non-Fiction: Get Coding!

Coding - it's the future skill that kids need now and one of our most popular non-fiction subject areas. While it may seem daunting to some parents (and kids), it's a lot more simple than it seems! Pick up a book and give it a go.

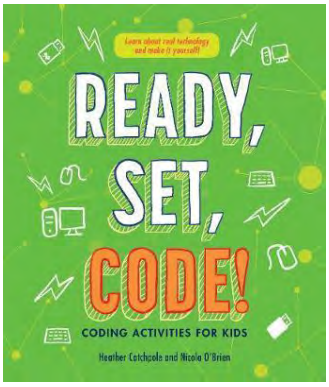




Getting Started with Coding

by Camille McCue

Coding know-how is the coolest new tool kids can add to their creativity toolboxes and all they need to get started is a computer connected to the internet and the lessons in this book. Easy!

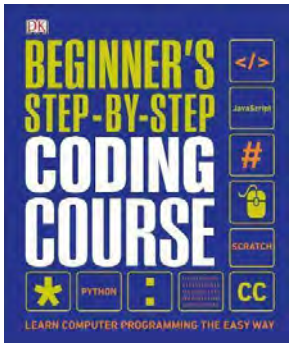


Ready, Set, Code! : Coding Activities for Kids

by Heather Catchpole

Illustrated by Nicola O'Brien

Ready, Set, Code! explains how cutting-edge digital technology works and its surprising uses now and in the future. Filled with interesting examples, each chapter explores a different topic, such as artificial intelligence, sensors and data, and applies it with a fun, hands-on coding project. You will learn how to create your own chatbot, translate messages into different languages, construct a burglar alarm, make digital art and music, and launch a citizen science project. Plus, you'll learn how to protect yourself online and much more.



Beginner's Step-by-Step Coding Course : Learn Computer Programming the Easy Way

Dorling Kindersley

Coding skills are in high demand and the need for programmers is still growing. Covering three of the most popular languages for new coders, this book uses a graphic method to break complex subjects into user-friendly chunks, bringing essential skills within easy reach.

Coding

by Frances Payne

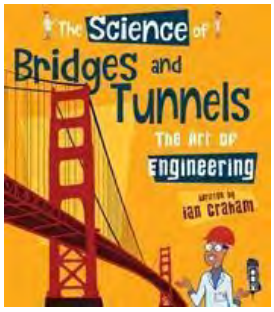
Learning to code is like learning a new language only instead of talking to people we are learning how to talk to computers. This book explains how coding works demystifying it and revealing that people and even other animals are all natural coders.

Coding With ScratchJr

by Alvaro Scrivano

Illustrated by Sue Downing

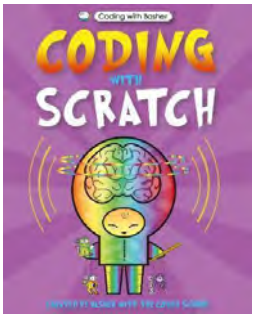
In Coding with ScratchJr, you can land on the moon, travel deep under the sea, take a trip to a magical world, and play a game of basketball.



The Science of Bridges and Tunnels

by Ian Graham

This fascinating guide to the design and construction of bridges and tunnels through the ages combines fact-packed, easy-to-read text with colourful and quirky illustrations.



Coding With Scratch

by Simon Basher & the Coder School

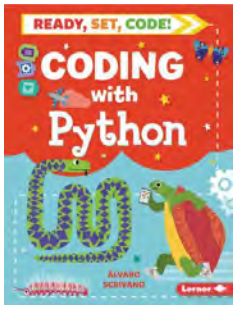
Young readers will learn all the basics of programming, then put their knowledge to the test in a series of apps, before building their first actual computer game. Plus there are lots of fun challenges to try along the way!

Love Coding? Be sure to checkout

Codeclubau.org/projects

An Australian based organisation which provides resources for children to learn to code. It covers many things which are in the NSW curriculum. Covers areas of scratch (scratch.mit.edu) HTML, CSS python, senseHAT, sonic Pi, micro:bit and blender. Appropriate for 7-17 year olds.

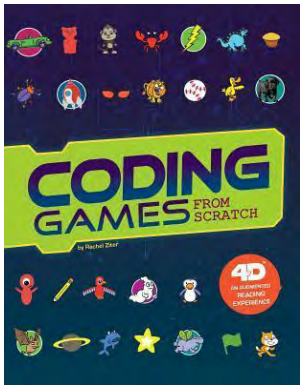
Junior Non-Fiction: Get Coding!



Coding With Python

by Alvaro Scrivano
Illustrated by Sue Downing

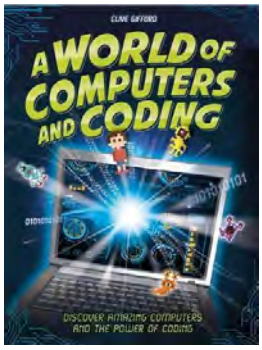
In Coding with Python, you can talk with turtles, travel to South America, draw a flower, and create a caterpillar without paper, pencils, or paint.



Coding Games From Scratch

by Rachel Ziter

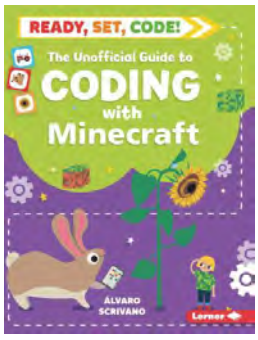
Learn the basics of coding using Scratch by focusing on simple coding techniques and language. This visual, hands-on guide will teach junior makerspace users how to create their games - including animated games, timed games, levels, and live variables - all using Scratch.



A World of Computers and Coding

by Clive Gifford

Step back in time to explore the history of computer gaming - from the first simple pong game to the latest high-tech console. Meet the pioneers of computer programming and gain an insight into how computers work.

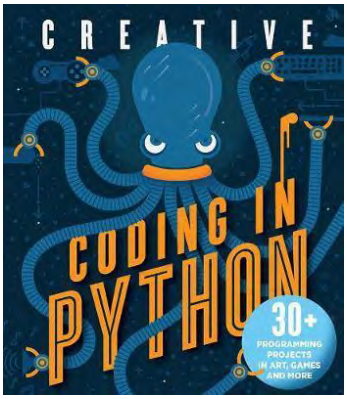


The Unofficial Guide to Coding with Minecraft

by Alvaro Scrivano
Illustrated by Sue Downing

In The Unofficial Guide to Coding with Minecraft, you can walk through a sunflower field, create a sheep pen, get hopping with rabbits, and farm your own field.

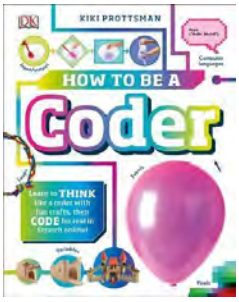
Easy-to-follow, step-by-step instructions will guide you through coding these fantastic projects. Once you've got the hang of it, there are different challenges you can choose to really test your coding skills and troubleshooting hints to help if you need them. Self-directed projects and activities help you learn the basics of coding.



Creative Coding in Python

by Sheena Vaidyanathan

Creative Coding in Python teaches kids the fundamentals of computer programming and demonstrates how to code 30+ fun, creative projects using Python, a free, intuitive, open-source programming language that's one of the top five most popular worldwide.



How to be a Coder

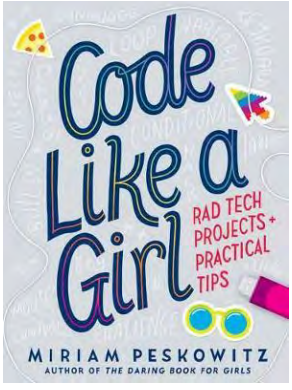
by Kiki Prottsman

Learn to think like a coder without a computer! Each of the fun craft activities included in this book will teach you about a key concept of computer programming and can be done completely offline.

You Can Code: Make Your Own Games, Apps and More in Scratch and Python!

by Kevin Pettman

Learn how to write code, develop awesome apps and games, and build challenges to test your siblings and friends.With step-by-step instructions for using programming languages Scratch and Python, in just minutes you'll be developing your own maze games, drum machines and much more.



Code Like a Girl

by Miriam Peskowitz

Welcome to Code Like a Girl, where you'll get started on the adventure of coding with cool projects and step-by-step tips.

Coding is about creativity, self-expression, and telling your story.

City of Parramatta Libraries

Celebrating Science Week 2020 for Kids

Online Science Story Time
Recommended Reads Video
Domino Video
Little Bangs On Demand

To find out more click HERE or head to
https://www.cityofparramatta.nsw.gov.au/national-science-week

Snap & Share...

Your Stories!

AUGUST

We're looking for our next great read and we need your help!

Write 5, six-word reviews for us and submit for your chance to win a $50 Dymocks Voucher!

Send us a photo of your to-be-read pile or your favourite reading spot for bonus points.

To Enter:

Fill in our online form here:
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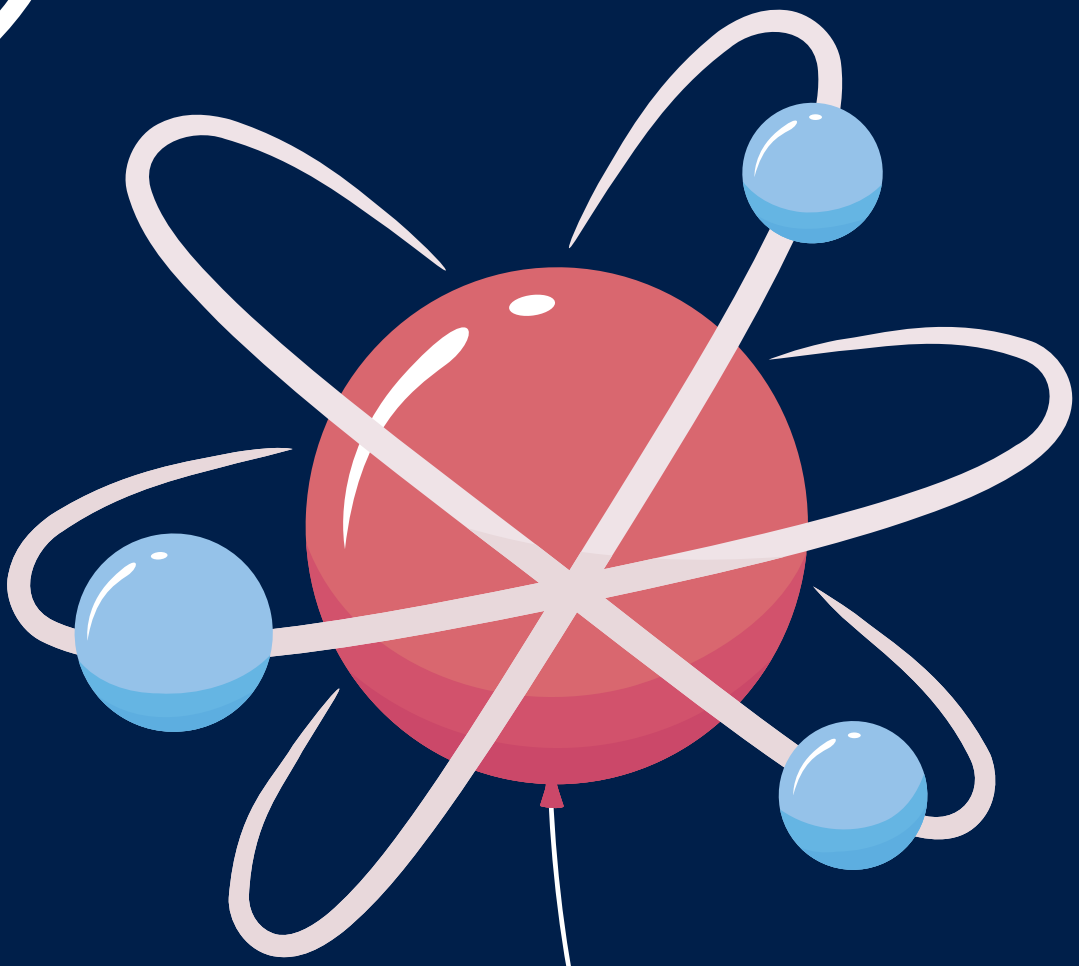
Or pick up an entry form at your closest City of Parramatta Libraries branch!

Submit by Monday 31 August



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