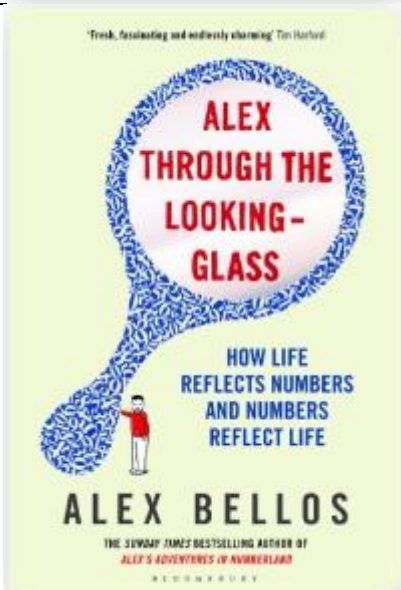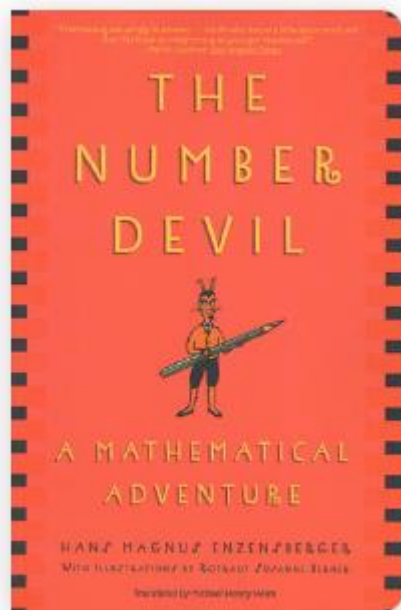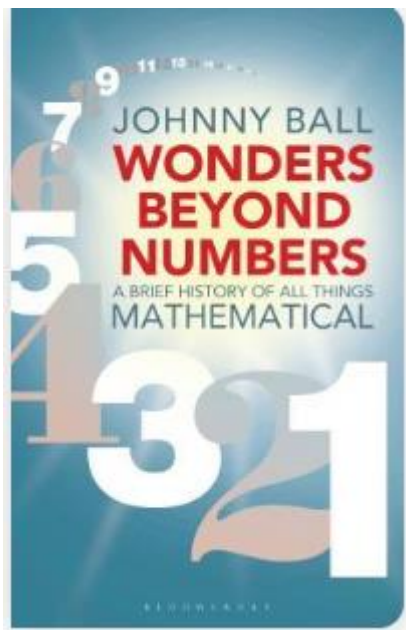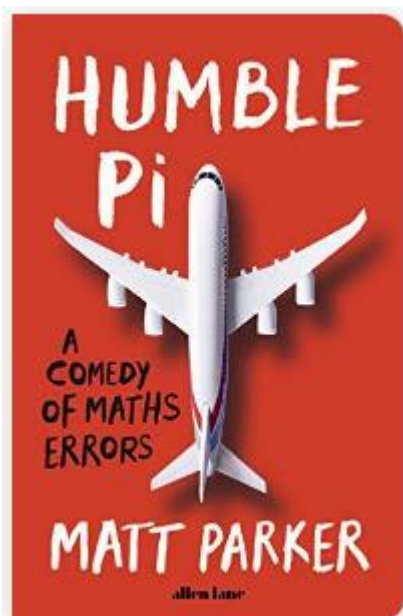|	
Alex's Adventures in Numberland. The world of maths can seem mind-boggling, irrelevant and, let's face it, boring. This groundbreaking book reclaims maths from the geeks. Mathematical ideas underpin just about everything in our lives: from the surprising geometry of the 50p piece to how probability can help you win in any casino. In search of weird and wonderful mathematical phenomena, Alex Bellos travels across the globe and meets the world's fastest mental calculators in Germany and a startlingly numerate chimpanzee in Japan. Packed with fascinating, eye-opening anecdotes, *Alex's Adventures in Numberland* is an exhilarating cocktail of history, reportage and mathematical proofs that will leave you awestruck.	
Alex through the looking glass. From triangles, rotations and power laws, to fractals, cones and curves, bestselling author Alex Bellos takes you on a journey of mathematical discovery with his signature wit, engaging stories and limitless enthusiasm. As he narrates a series of eye-opening encounters with lively personalities all over the world, Alex demonstrates how numbers have come to be our friends, are fascinating and extremely accessible, and how they have changed our world.	
The Number Devil The international best-seller that makes mathematics a thrilling exploration. In twelve dreams, Robert, a boy who hates math, meets a Number Devil, who leads him to discover the amazing world of numbers: infinite numbers, prime numbers, Fibonacci numbers, numbers that magically appear in triangles, and numbers that expand without. As we dream with him, we are taken further and further into mathematical theory, where ideas eventually take flight, until everyone - from those who fumble over fractions to those who solve complex equations in their heads - winds up marveling at what numbers can do. Hans Magnus Enzensberger is a true polymath, the kind of superb intellectual who loves thinking and marshals all of his charm and wit to share his passions with the world. In The Number Devil , he brings together the surreal logic of Alice in Wonderland and the existential geometry of Flatland with the kind of math everyone would love, if only they had a number devil to teach it to them.	

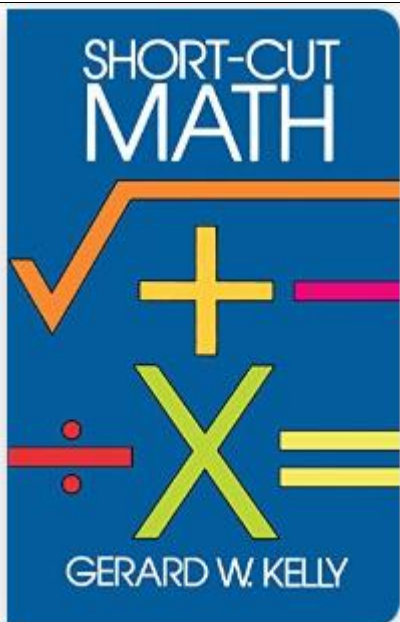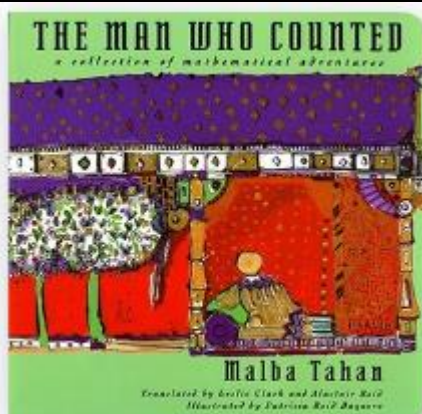|	
	Wonders beyond Numbers In this book, Johnny Ball tells one of the most important stories in world history - the story of mathematics. By introducing us to the major characters and leading us through many historical twists and turns, Johnny slowly unravels the tale of how humanity built up a knowledge and understanding of shapes, numbers and patterns from ancient times, a story that leads directly to the technological wonderland we live in today. As Galileo said, 'Everything in the universe is written in the language of mathematics', and *Wonders Beyond Numbers* is your guide to this language. Mathematics is only one part of this rich and varied tale; we meet many fascinating personalities along the way, such as a mathematician who everyone has heard of but who may not have existed; a Greek philosopher who made so many mistakes that many wanted his books destroyed; a mathematical artist who built the largest masonry dome on earth, which builders had previously declared impossible; a world-renowned painter who discovered mathematics and decided he could no longer stand the sight of a brush; and a philosopher who lost his head, but only after he had died. Enriched with tales of colourful personalities and remarkable discoveries, there is also plenty of mathematics for keen readers to get stuck into. Written in Johnny Ball's characteristically light-hearted and engaging style, this book is packed with historical insight and mathematical marvels; join Johnny and uncover the wonders found beyond the numbers
	Humble Pi The book-length answer to anyone who ever put their hand up in math class and asked, "When am I ever going to use this in the real world?" "Fun, informative, and relentlessly entertaining, *Humble Pi* is a charming and very readable guide to some of humanity's all-time greatest miscalculations--that also gives you permission to feel a little better about some of your own mistakes." --Ryan North, author of *How to Invent Everything* Our whole world is built on math, from the code running a website to the equations enabling the design of skyscrapers and bridges. Most of the time this math works quietly behind the scenes . . . until it doesn't. All sorts of seemingly innocuous mathematical mistakes can have significant consequences. Math is easy to ignore until a misplaced decimal point upends the stock market, a unit conversion error causes a plane to crash, or someone divides by zero and stalls a battleship in the middle of the ocean. Exploring and explaining a litany of glitches, near misses, and mathematical mishaps involving the internet, big data, elections, street signs, lotteries, the Roman Empire, and an Olympic team, Matt Parker uncovers the bizarre ways math trips us up, and what this reveals about its essential place in our world. Getting it wrong has never been more fun.

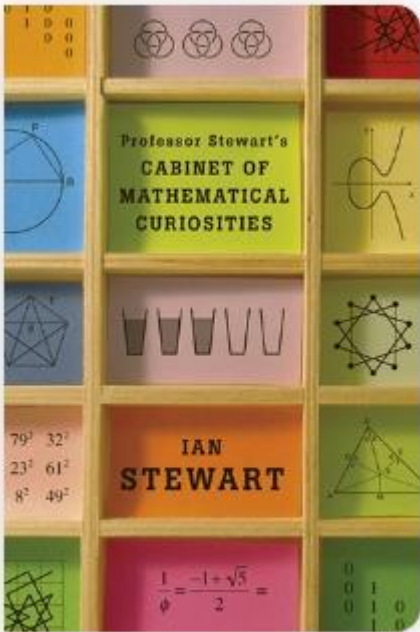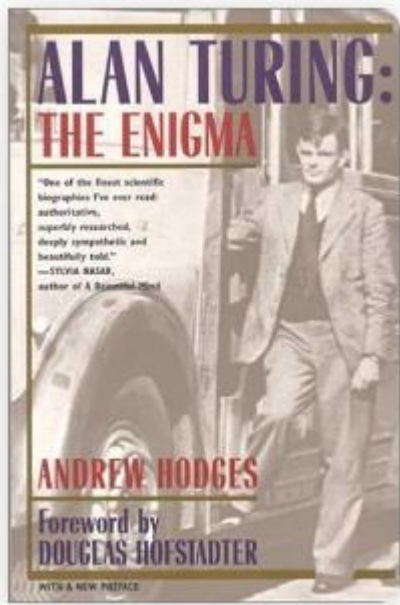|	
	Short-cut Maths Can you multiply 362 x .5 quickly in your head? Could you readily calculate the square of 41? How much is 635 divided by 2½? Can 727,648 be evenly divided by 8? If any of these questions took you more than a few seconds to solve, you need this book. Short-Cut Math is a concise, remarkably clear compendium of about 150 math short-cuts — timesaving tricks that provide faster, easier ways to add, subtract, multiply, and divide
	Murderous Maths (set of 10) All the Murderous Maths books feature a range of characters including One-Finger Jimmy, Half Smile and their gang, Dolly Snowlips, Professor Fiendish, Pongo McWhiffy and the terribly lovely Veronica Gumfloss, the evil Gollarks from the planet Zog, Urgum the Axeman and so on. They also include sneaky tricks, games, jokes (most of which are repeatable) and what's more - you'll find yourself picking up all sorts of advice and tips on how to cope with maths in all its various forms.
	The Man who Counted A collection of famous mathematical puzzles, taken from a popular newspaper column, features the "writings" of the fictional author, Malba Tahan, who describes different mathematical puzzles and solutions applied to real situations. Malba Tahan is the creation of a celebrated Brazilian mathematician who was looking for a way to bring some of the mysteries and delights of mathematics to a wider public. He turned out to be a born storyteller. The adventures of Beremiz Samir, The Man Who Counted, take the reader on an exotic journey in which, time and again, he summons his extraordinary mathematical powers to settle disputes, give wise

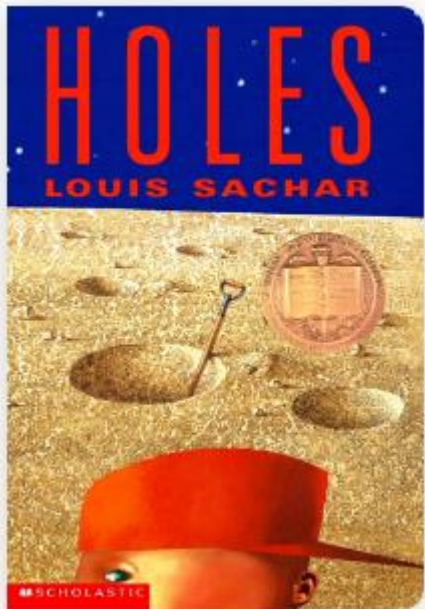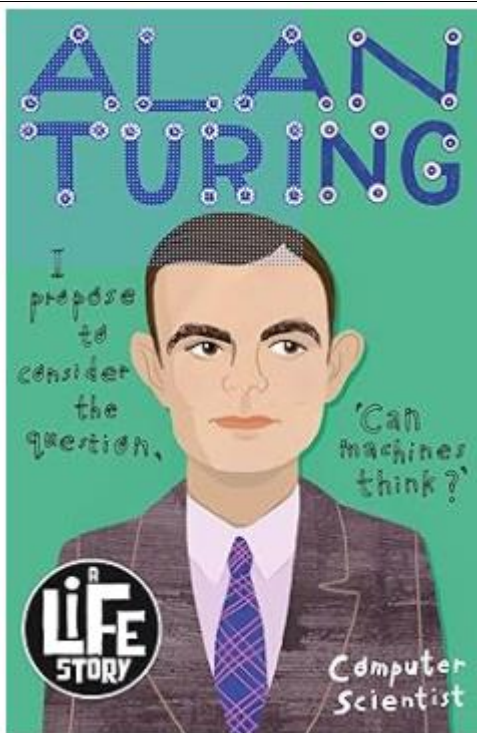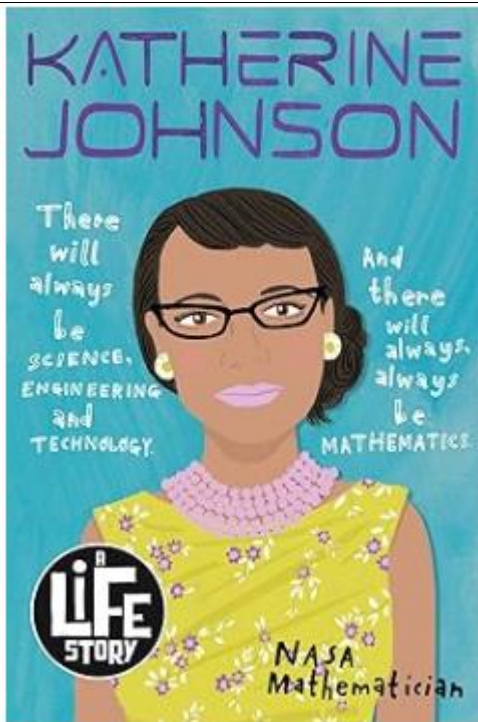|	advice, overcome dangerous enemies, and win for himself fame and fortune
	Cabinet of Mathematical Curiosities Knowing that the most exciting math is not taught in school, Professor Ian Stewart has spent years filling his cabinet with intriguing mathematical games, puzzles, stories, and factoids intended for the adventurous mind. This book reveals the most exhilarating oddities from Professor Stewart's legendary cabinet. Inside, you will find hidden gems of logic, geometry, and probability-like how to extract a cherry from a cocktail glass (harder than you think), a pop-up dodecahedron, and the real reason why you can't divide anything by zero. You never know what enigmas you'll find in the Stewart cabinet, but they're sure to be clever, mind-expanding, and delightfully fun.
	Alan Turing –The Enigma Alan Turing (1912-54) was a British mathematician who made history. His breaking of the German U-boat Enigma cipher in World War II ensured Allied-American control of the Atlantic. But Turing's vision went far beyond the desperate wartime struggle. Already in the 1930s he had defined the concept of the universal machine, which underpins the computer revolution. In 1945 he was a pioneer of electronic computer design. But Turing's true goal was the scientific understanding of the mind, brought out in the drama and wit of the famous "Turing test" for machine intelligence and in his prophecy for the twenty-first century. Drawn in to the cockpit of world events and the forefront of technological innovation, Alan Turing was also an innocent and unpretentious gay man trying to live in a society that criminalized him. In 1952 he revealed his homosexuality and was forced to participate in a humiliating treatment program, and was ever after regarded as a security risk. His suicide in 1954 remains one of the many enigmas in an astonishing life story.

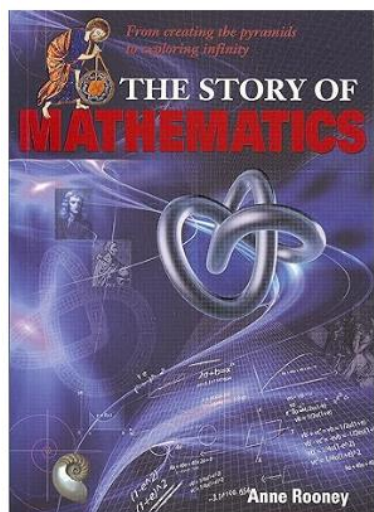|	
	Holes Stanley Yelnats is under a curse. A curse that began with his no-good-dirty-rotten-pig-stealing-great-great-grandfather and has since followed generations of Yelnats. Now Stanley has been unjustly sent to a boys' detention center, Camp Green Lake, where the boys build character by spending all day, every day digging holes exactly five feet wide and five feet deep. There is no lake at Camp Green Lake. But there are an awful lot of holes. It doesn't take long for Stanley to realize there's more than character improvement going on at Camp Green Lake. The boys are digging holes because the warden is looking for something. But what could be buried under a dried-up lake? Stanley tries to dig up the truth in this inventive and darkly humorous tale of crime and punishment—and redemption.
	Award-winning children's author, Joanna Nadin, explores the extraordinary life of code-cracking genius, Alan Turing. Available in our school library.

Award-winning children's author, Leila Rasheed, explores the life of the inspirational NASA mathematician made famous by the film Hidden Voices - Katherine Johnson.

Available in our school library.

The History of Mathematics Podcasts and Videos

The Story of Maths – The history of Mathematics from ancient times to the present day. Narrated by Oxford mathematics professor Marcus du Sautoy. The series covers the seminal moments and people in the development of maths.
Episode 1 – The Language of the Universe   Episode 2 –The Genius of the East   Episode 3- The Frontiers of Space Episode 4 To Infinity and Beyond.

Author Anne Rooney weaves strands from every age and culture into a fascinating narrative, which coincidentally tells the story of how mankind moved on from cave dwelling to the life of today. Topics include the development of counting and numbers systems, the emergence of zero, cultures that don't have numbers, algebra, solid geometry, symmetry and beauty, perspective, riddles and problems, calculus, mathematical logic, friction force and displacement, subatomic particles, and the expansion of the universe. Great mathematical thinkers covered include Napier, Liu Hui, Aryabhata, Galileo, Newton, Russell, Einstein, Riemann, Euclid, Carl Friedrich Gauss, Charles

Babbage, Montmort, Wittgenstein, and many more. The book is beautifully illustrated throughout in full color.

A Brief History of Mathematics – professor Marcus du Sautoy argues that mathematics is the driving force behind modern science. Ten, fifteen minute podcasts that reveal the personalities behind the calculations from Newton to the present day. BBC podcast

Mathematicians.

A beautiful mind – The Life of Mathematical Genius and Nobel Laureate John Nash by Sylvia Nasar

64 Geeks – Meet the brains whi changed the world from Aristitke to Zuckerberg

Einstein's Heros – Blending Science, History and Biography a look at the beauty of Mathematics and those that inspired Einstein by R Arianrhod.

Newton – The making of a Genius - A biography of the great man.