



Mathematics Reading List

Byrchall High School · Mathematics Department

Raising aspiration through reading

Year 9

Ages 13–14

KS3 Year 3

Recommended reading for Year 9 — Ages 13–14

72 books selected from the Byrchall Mathematics Reading List

The Indisputable Existence of Santa ...

Humour

Dr. Hannah Fry & Thomas Oléron Evans

Uses statistics, graph theory and game theory to solve Christmas — funny and genuinely mathematical.

Maths on the Go

Enrichment

Rob Eastaway & Mike Askell

101 maths activities to do anywhere — brilliant for sparking curiosity outside the classroom.

Murderous Maths: Savage Shapes

Humour

Kjartan Poskitt

Shape and space — angles, area and symmetry via the Murderous Maths formula — ideal KS3 enrichment.

Can You Solve My Problems?

Puzzle Book

Alex Bellos

A wide range of puzzles from simple to challenging — builds logical thinking and perseverance.

Once Upon a Prime

Popular Maths

Sarah Hart

Explores the relationship between mathematics and literature — a unique and endlessly fascinating perspective.

The Curious Incident of the Dog in th...

Fiction

Mark Haddon

A novel with strong mathematical themes including prime numbers and logical thinking.

Introducing Mathematics: A Graphic ...

Graphic Guide

Ziauddin Sardar & Jerry Ravetz

A visual, comic-book style introduction to key mathematical ideas and their history.

Change Is the Only Constant

Popular Maths

Ben Orlin

Calculus concepts explained through stories and terrible drawings — beautiful and accessible.

Number: The Language of Science

Classic

Tobias Dantzig

A classic account of how the concept of number developed through human history.

Mathematical Puzzles and Diversions

Puzzle

Martin Gardner

Classic recreational maths from the legendary Scientific American columnist.

Secrets of Mental Maths

Mental Maths

Arthur Benjamin & Michael Shermer

Learn to perform extraordinary calculations in your head — builds number sense and confidence.

The Murderous Maths of Everything

Humour

Kjartan Poskitt

Brings together the best of the Murderous Maths series — a brilliant KS3 enrichment companion.

The Joy of x

Popular Maths

Steven Strogatz

A brilliant tour through all of mathematics from counting to calculus, written for the general reader.

Maths in 100 Key Breakthroughs

Reference

Richard Elwes

100 key moments in maths history explained accessibly — great as a dip-in reference.

Alex's Adventures in Numberland

Popular Maths

Alex Bellos

Explores the history and wonder of numbers in everyday life. Accessible and witty.

My Best Mathematical and Logic Puzz...

Puzzle Book

Martin Gardner

70 of Gardner's best brain-teasers covering logic, geometry, number and combinatorics.

Ada Lovelace: The Making of a Comp...

Biography

Christopher Hollings et al.

The true story of how Ada Lovelace became the world's first computer programmer through mathematics.

Humble Pi: A Comedy of Maths Errors

Humour

Matt Parker

What happens when maths goes wrong in real life — the illustrated edition is especially accessible.

Thinking in Numbers

Autobiography

Daniel Tammet

An autistic savant explores mathematics through personal stories and cultural observations.

The Maths Behind

Popular Maths

Colin Beveridge

Reveals the mathematics behind sport, music, nature, technology and more.

Ruler and Compass: Practical Geome...

Geometry

Andrew Sutton

A hands-on guide to classical geometric constructions — perfect for extending geometric understanding.

What's the Point of Maths?

Reference

DK

Explores why maths matters in the real world through bold graphics and fascinating facts.

Maths on the Back of an Envelope

Estimation

Rob Eastaway

Teaches estimation and number sense in a fun, practical way — relevant for all GCSE students.

The Maths Book

Reference

DK

A beautifully illustrated chronological journey through 250 mathematical milestones.

Why Do Buses Come in Threes?

Popular Maths

Rob Eastaway & Jeremy Wyndham

Shows how maths explains everyday mysteries — great for seeing maths in the real world.

Flatland: A Romance of Many Dimens...

Classic Fiction

Edwin Abbott

A Victorian novella set in a 2D world — a brilliant way to think about dimensions and geometry.

The Simpsons and Their Mathematica...

Popular Maths

Simon Singh

A YA-friendly edition exploring the maths hidden in The Simpsons — engaging for all.

The Colossal Book of Mathematics

Puzzle

Martin Gardner

A definitive collection of recreational mathematics spanning all topics — a genuine treasure trove.

Professor Stewart's Cabinet of Mathe...

Puzzle

Ian Stewart

A collection of mind-bending puzzles, paradoxes and curiosities spanning all areas of maths.

Magical Mathematics

Magic

Persi Diaconis & Ron Graham

Reveals the deep mathematics behind card tricks and magic — maths in unexpected places.

Zero: The Biography of a Dangerous I... Popular Maths

Charles Seife

The history of the concept of zero and its profound impact on mathematics and science.

The Thrilling Adventures of Lovelace ... Graphic Novel

Sydney Padua

A comic-book history of the first computer and Ada Lovelace's mathematical genius.

Here's Looking at Euclid Popular Maths

Alex Bellos

A world tour of mathematics that will surprise even the most jaded student of the subject.

The Unexpected Mathematics of Orig... Craft

Robert Lang

How paper folding connects to deep mathematical ideas including geometry and algorithms.

A Beginner's Guide to Constructing t... Geometry

Michael S. Schneider

Explores how mathematical patterns appear in art, nature and architecture.

The Num8er My5teries Popular Maths

Marcus du Sautoy

Five mathematical mysteries explored with the BBC — accessible, exciting and curriculum-relevant.

The Language of Mathematics Popular Maths

Keith Devlin

Explores how maths is the universal language underpinning science, art and nature.

Four Colours Suffice Popular Maths

Robin Wilson

The story of the four-colour map theorem — one of maths' most celebrated problems, told brilliantly.

The Puzzler Puzzle

A.J. Jacobs

A journalist immerses himself in the world of puzzles — maths, logic and lateral thinking throughout.

The Penguin Dictionary of Curious an... Reference

David Wells

Every number catalogued with its interesting properties — a wonderful dip-in reference for any year group.

Fermat's Last Theorem Popular Maths

Simon Singh

The gripping story behind the world's most famous maths problem. Builds appreciation of proof.

The Code Book (Young Person's Editi... Popular Maths

Simon Singh

The history of codes and cryptography — full of maths including modular arithmetic and prime numbers.

Things to Make and Do in the Fourth ... Popular Maths

Matt Parker

Playful exploration of geometry, topology, and number theory by the Stand-up Maths communicator.

In Code Autobiography

Sarah Flannery

A teenage girl's account of discovering a new cryptographic algorithm — inspiring and full of real maths.

The Housekeeper and the Professor Fiction

Yoko Ogawa

A Japanese novel about a maths professor — explores number theory and human connection beautifully.

Conned Again, Watson! Fiction

Colin Bruce

Sherlock Holmes stories retold to illustrate probability, statistics and logical fallacies.

The Golden Ratio Popular Maths

Mario Livio

Explores the mysterious number phi — its appearance in art, nature, architecture and maths.

Euclid's Window Popular Maths

Leonard Mlodinow

The story of geometry through five key breakthroughs spanning Euclid to string theory.

The Art of Problem Solving Vol. 1 Problem Solving

Rusczyk & Lehoczky

The gold-standard competition maths primer — for students wanting to go beyond GCSE.

Guesstimation Estimation

Weinstein & Adam

Fermi estimation problems and solutions — brilliant for developing real-world quantitative reasoning.

Do Dice Play God? Popular Maths

Ian Stewart

Explores probability, uncertainty, and statistics in the real world with Ian Stewart's clarity.

Significant Figures Biography

Ian Stewart

Short biographies of 25 mathematicians who changed the world — inspiring for older students.

How to Bake Pi Popular Maths

Eugenia Cheng

Uses recipes and everyday examples to explore abstract mathematical ideas including category theory.

1089 and All That Popular Maths

David Acheson

A short, brilliant tour of mathematics that captures the excitement of discovery.

The Great Mathematical Problems Popular Maths

Ian Stewart

Explores the biggest unsolved problems in mathematics with clear, engaging explanations.

The Fascinating World of Graph Theory Popular Maths

Benjamin, Chartrand & Zhang

An accessible introduction to graph theory with puzzles and real-world applications.

Hidden Figures Biography

Margot Lee Shetterly

The story of the Black female mathematicians at NASA who helped launch America into space.

Logicomix: An Epic Search for Truth Graphic Novel

Doxiadis & Papadimitriou

A graphic novel about Bertrand Russell and the foundations of mathematics — stunning.

The Monty Hall Problem Popular Maths

Jason Rosenhouse

A deep dive into one of the most famous probability puzzles ever devised.

The Maths of Life and Death Popular Maths

Kit Yates

Explores how maths governs the world around us from disease modelling to criminal justice.

Math Girls Fiction

Hiroshi Yuki

A Japanese novel following students who solve beautiful mathematical problems together.

Mathematics and the Imagination Classic Popular Math

Kasner & Newman

A classic introduction to the beauty and scope of mathematics — coined the word 'googol'.

Mathematics for the Million Classic Popular Math

Lancelot Hogben

A classic self-teaching book from arithmetic to calculus — inspiring and thorough.

Shape: The Hidden Geometry of Inform...

Popular Maths

Jordan Ellenberg

Explores geometry in art, biology, data and everyday life — richly illustrated.

The Signal and the Noise

Statistics

Nate Silver

Why so many predictions fail — a masterclass in probability and statistical thinking.

Weapons of Math Destruction

Technology

Cathy O'Neil

Explores how mathematical models and algorithms can cause harm — critical thinking at its best.

Professor Stewart's Hoard of Mathem...

Puzzle

Ian Stewart

A second cabinet of curiosities — more puzzles, paradoxes and surprising results from Ian Stewart.

Euclid in the Rainforest

Popular Maths

Joseph Mazur

Explores mathematical truth through logic, infinity and probability with engaging storytelling.

The Simpsons and Their Mathematica...

Popular Maths

Simon Singh

Explores the surprising depth of maths hidden in The Simpsons — engaging for older students.

The Wraparound Universe

Cosmology

Jean-Pierre Luminet

Explores the shape of the universe through topology and geometry — mind-expanding.

Logicomix: An Epic Search for Truth (...)

Graphic Novel

Doxiadis & Papadimitriou

Extended edition of the graphic novel about Bertrand Russell — includes additional annotations.

Number: The Language of Science (A...

Classic

Tobias Dantzig

The annotated edition of a classic account of how the concept of number has developed.