



Mathematics Reading List

Byrchall High School · Mathematics Department

Raising aspiration through reading

Year 8

Ages 12–13

KS3 Year 2

Recommended reading for Year 8 — Ages 12–13

54 books selected from the Byrchall Mathematics Reading List

The Number Devil

Fiction

Hans Magnus Enzensberger

A boy dreams of a number devil who introduces him to fascinating maths ideas — great for reluctant readers.

Maths Quest

Puzzle

David Glover

An interactive adventure book where maths problems drive the story forward.

Professor Astro Cat's Frontiers of Sp...

Science

Dr. Dominic Walliman

Space science explained with maths — great for cross-curricular engagement.

Murderous Maths: Numbers – The Ke...

Humour

Kjartan Poskitt

Explores number theory including fractions, decimals and powers with cartoons and jokes.

The Phantom Tollbooth

Fiction

Norton Juster

A classic adventure through the Kingdom of Mathematics — logic and wordplay throughout.

Figuring: The Joy of Numbers

Enrichment

Shakuntala Devi

The 'human computer' shares her secrets for mental arithmetic and number tricks.

The Adventures of Penrose the Mathe...

Fiction

Theoni Pappas

A cat explores fractals, infinity and topology in story form — perfect KS3 enrichment.

It's a Numberful World

Popular Maths

Eddie Woo

YouTube's favourite maths teacher reveals the hidden maths in everyday life — warm and accessible.

Murderous Maths: The Fiendish Angl...

Humour

Kjartan Poskitt

Geometry and angles explained through the series' trademark cartoon humour and puzzles.

The Maths Behind Football

Popular Maths

Rob Eastaway

Tactics, statistics and geometry explored through the beautiful game — hugely engaging for sports fans.

Maths is Everywhere

Popular Maths

Bobby Seagull

Football, food and finance — Bobby Seagull shows how maths appears in everyday life for younger readers.

Murderous Maths: The Vicious Circles

Humour

Kjartan Poskitt

Circles, pi and curved shapes tackled with the series' trademark irreverent style and cartoons.

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.

Secrets of Mental Maths

Mental Maths

Arthur Benjamin & Michael Shermer

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

Ruler and Compass: Practical Geome...

Geometry

Andrew Sutton

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

Maths on the Go

Enrichment

Rob Eastaway & Mike Askell

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

The Murderous Maths of Everything

Humour

Kjartan Poskitt

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

What's the Point of Maths?

Reference

DK

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

Murderous Maths: Savage Shapes

Humour

Kjartan Poskitt

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

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 on the Back of an Envelope

Estimation

Rob Eastaway

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

Can You Solve My Problems?

Puzzle Book

Alex Bellos

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

Maths in 100 Key Breakthroughs

Reference

Richard Elwes

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

The Maths Book

Reference

DK

A beautifully illustrated chronological journey through 250 mathematical milestones.

Once Upon a Prime

Popular Maths

Sarah Hart

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

How Many Socks Make a Pair?

Puzzle

Rob Eastaway

Surprisingly deep maths from everyday situations — probability, patterns and percentages made fun.

Maths in Minutes

Reference

Paul Glendinning

200 key mathematical concepts each explained in under a minute — perfect for curious Year 8 students.

Alex's Adventures in Numberland

Popular Maths

Alex Bellos

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

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.

The Curious Incident of the Dog in th...

Fiction

Mark Haddon

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

My Best Mathematical and Logic Puzzles

Puzzle Book

Martin Gardner

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

Flatland: A Romance of Many Dimensions

Classic Fiction

Edwin Abbott

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

Introducing Mathematics: A Graphic Guide

Graphic Guide

Ziauddin Sardar & Jerry Ravetz

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

Ada Lovelace: The Making of a Computer

Biography

Christopher Hollings et al.

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

The Simpsons and Their Mathematical Secrets

Popular Maths

Simon Singh

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

Change Is the Only Constant

Popular Maths

Ben Orlin

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

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.

The Colossal Book of Mathematics

Puzzle

Martin Gardner

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

Number: The Language of Science

Classic

Tobias Dantzig

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

Thinking in Numbers

Autobiography

Daniel Tammet

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

Professor Stewart's Cabinet of Mathematical Curiosities

Puzzle

Ian Stewart

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

Mathematical Puzzles and Diversions

Puzzle

Martin Gardner

Classic recreational maths from the legendary Scientific American columnist.

The Maths Behind

Popular Maths

Colin Beveridge

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

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 Idea

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 Origami

Craft

Robert Lang

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

A Beginner's Guide to Constructing the Universe

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 and Interesting Numbers

Reference

David Wells

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