

Maths Super Curricular Activities

KS3

Please update the Form on the School website to record the Super-curricular activity you have completed



 Read	 Watch/Listen
▪ The Number Devil – Hans Magnus Enzensberger (A fun journey into mathematical concepts through dreams) ▪ Murderous Maths – Kjartan Poskitt (Humorous and engaging explanations of tricky maths ideas) ▪ How Long Is a Piece of String? – Rob Eastaway & Jeremy Wyndham (Exploring practical applications of maths in everyday life) ▪ Maths on the Back of an Envelope – Rob Eastaway (Learn how to estimate and solve real-world problems quickly) ▪ Maths: A Very Short Introduction – Timothy Gowers (A deeper look at the beauty and logic of mathematics)	▪ BBC Radio 4 - More or Less – A brilliant programme breaking down statistics, maths myths, and everyday numbers. ▪ Numberphile Podcast – Fascinating discussions with mathematicians on surprising and fun topics in maths. ▪ The Infinite Monkey Cage – Science meets maths with comedian Brian Cox and special guests explaining complex topics in an entertaining way. ▪ TED Talks (Mathematics Playlist) – Short but insightful talks from leading experts on fascinating maths concepts.
 Visit	 Create/Explore
▪ Science Museum (Mathematics Gallery) – Discover historic maths artefacts, interactive exhibits, and famous equations. ▪ Bank of England Museum – Learn about finance, money, and economic maths, including inflation and interest rates. ▪ The Royal Observatory Greenwich – Explore time, astronomy, and geometry used in navigation. ▪ The London Transport Museum – Understand the logistics behind transport networks and timetables with real-world maths applications. ▪ The Crystal (Royal Victoria Dock) – A sustainability-focused exhibit highlighting how maths is used in engineering and urban planning. ▪ Puzzle Parlour (Escape Room Challenge) – A fantastic opportunity to solve mathematical puzzles in a real-world setting!	▪ Design a Maths Board Game – Create a game based on probability, logic, or number challenges. ▪ Build a 3D Model Using Geometry – Use paper, cardboard, or software to design polyhedra or other shapes. ▪ Run a Budgeting Challenge – Plan a mock shopping trip or holiday, working with money, percentages, and financial maths. ▪ Create a Maths-Inspired Piece of Art – Explore symmetry, tessellations, or Fibonacci spirals in drawings or digital designs. ▪ Explore Code & Algorithms – Use Scratch or Python to create a simple maths-based program or interactive challenge. ▪ Investigate Patterns in Nature – Find examples of maths in nature (fractals, spirals, symmetry) and document findings.

KS4

 Read	 Watch/Listen 
▪ <i>Alex's Adventures in Numberland</i> – Alex Bellos (An engaging look into the beauty of numbers and mathematical puzzles) ▪ <i>How to Solve It</i> – George Pólya (A classic guide on logical problem-solving and mathematical thinking) ▪ <i>The Simpsons and Their Mathematical Secrets</i> – Simon Singh (Exploring hidden mathematical references in the beloved TV show) ▪ <i>Fermat's Last Theorem</i> – Simon Singh (A fascinating historical account of one of the most famous problems in maths) ▪ <i>Maths on the Back of an Envelope</i> – Rob Eastaway (Mastering quick estimation skills for real-world problems) ▪ <i>The Monty Hall Problem</i> – Jason Rosenhouse (An in-depth exploration of probability and counterintuitive decision-making)	▪ BBC Radio 4 - More or Less – Breaking down statistics, mathematical myths, and everyday numbers in an accessible way ▪ Numberphile Podcast – Conversations with mathematicians tackling fascinating problems and theories ▪ The Infinite Monkey Cage – A lively mix of maths and science with Brian Cox and expert guests ▪ TED Talks (Mathematics Playlist) – Short but powerful talks covering intriguing maths concepts and real-world applications
 Visit	 Create/Explore
▪ Science Museum (Mathematics Gallery) – An inspiring exhibit showcasing famous mathematical discoveries and applications ▪ Bank of England Museum – Learn about finance, inflation, and mathematical modelling in economics ▪ The Royal Observatory Greenwich – Explore the mathematics behind astronomy, timekeeping, and navigation ▪ London Transport Museum – Understand how mathematical systems help run transport networks efficiently ▪ Bletchley Park (Outside London) – A worthwhile trip to learn about codebreaking and the mathematics behind cryptography ▪ The Design Museum – Discover the role of geometry and mathematical precision in architecture and product design 	▪ Build a Budget Plan – Create a financial plan for a trip, learning about percentages, profit/loss, and currency exchange ▪ Develop a Probability-Based Game – Design a board game using probability principles and expected values ▪ Investigate Fibonacci in Nature – Document examples of spirals and patterns in nature using photography or illustrations ▪ Create a Mathematical Art Piece – Use tessellations, symmetry, or fractals to design a maths-inspired artwork ▪ Learn Basic Coding for Mathematics – Use Python or Scratch to code simple functions related to algebra or geometry ▪ Explore Cryptography & Secret Codes – Develop encoding and decoding methods used in mathematics and cybersecurity