



# Super Curriculum

# Hinchingbrooke Sixth Form

Excellence in Everything



# Listening Tasks

# **Relatively Prime**

Listen to Relatively Prime podcast by Samuel Hansen.

# Numberphile

Listen to the <u>Numberphile</u> podcasts which is full of fascinating number facts.

# A Brief History of Mathematics

Listen to the episodes of <u>A Brief History of Mathematics</u> – podcast series by Marcus du Sautoy.

# The Infinite Monkey Cage

The Infinite Monkey Cage - a podcast with Robin Ince and Professor Brian Cox.



# Research Tasks

# Alan Turing

Research the life and work of Alan Turing. Watch 'The Imitation Game', and read the book of the same name, about his involvement in code breaking of Enigma.

# Mathigon

Visit https://mathigon.org/timeline for a timeline of significant contributors to the world of mathematics.

# Golden Gate Bridge

Research the construction of the Golden Gate Bridge in San Francisco and learn how its constructions changed due to the curvature of the earth. https://www.goldengate.org/bridge/history-research/educational-resources/school-projects/



# Watching Tasks

# Hidden Figures

A film and book about the African-American Mathematicians of NASA who helped America win the Space Race.

# The Man Who Knew Infinity

Watch 'The Man Who Knew Infinity', a biography based drama on the mathematician Srinivasa Ramanujan.

# Frames of Mind

<u>Frames of Mind</u> is a documentary film about nine UK-based mathematicians offering insights into their mathematical thinking across a broad range of fields.

### A Beautiful Mind

Starring Russell Crowe, learn about the mathematical genius of John Forbes Nash Jr.

### Tom Crawford on Covid

Watch Tom Crawford explain the SIR disease model for COVID-19 (Coronavirus) as well as videos on a wide range of mathematics on his <u>Tom Rocks Maths website</u>

### Magic Numbers

The Mysterious World of Maths, <u>Magic Numbers</u>, a BBC document explores the world of Maths with Dr Hannah Fry.



# Trips and Visits

# **Bletchley Park**

Explore the world of coding and maths - details here.

Mechanical Art and Design Museum

The Mechanical, Art & Design museum in Stratford-upon-Avon https://themadmuseum.co.uk/

Science Museum

Visit the Maths Gallery at London's Science Museum,

Bank of England Museum

Visit the Bank of England Museum in Threadneedle Street.



# Student Led Tasks

# NRICH

Explore University of Cambridge's NRICH website for curriculum linked resources.

# Teach Maths!

Support students in your school or provide 1:1 provision.

# Wolfram Mathworld

Visit <u>https://mathworld.wolfram.com/</u> a website of extensive mathematical resources. You could try the following puzzle <u>https://mathworld.wolfram.com/TwoTrainsPuzzle.html</u>

# Wolfram Mathworld

Visit the <u>I Love Maths</u> website for information for careers advice in maths, science and engineering

# Maths Jokes and Puns

Enjoy maths jokes and puzzles from https://www.mrbartonmaths.com/jokes/#general

### Underground Mathematics

Visit <u>Underground Mathematics</u> to explore the connections that underpin mathematics and use the resources to deepen your understanding.

### **Dr Frost Mathematics**

Visit Dr Frost Mathematics for Olympiad worksheets, past papers and lots of informative resources.

### Institute of Mathematics

Visit the Institute of Mathematics website and subscribe up to the <u>e16plus newsletter</u> and browse the website for information on workshops and events.

### Problem solving

<u>Brilliant problems</u> – a website with guided interactive problem solving that's effective and fun or Celebrate Pi Day with an interesting way to calculate Pi using colliding blocks <u>here</u>.

# Society of Young Mathematicians

Join the Society of young Mathematicians

### Advanced Mathematics Support Programme

This website provides lots of information on universities, as well as webinars and events, aimed at next steps <a href="https://amsp.org.uk/">https://amsp.org.uk/</a>



# **Creative Tasks**

# Impossible Hexagons

Follow this YouTube clip on how to draw an <u>Impossible Hexagon</u> and other impossible shapes and optical illusions.

Things to make and do in the fourth dimension

Read Things to make and do in the fourth dimension by Matt Parker.