LEARNING JOURNEY

GCSE FURTHER MATHS

CURRICULUM INTENT

At Benton Park School the Mathematics department has 5 key aims that structure the delivery of our curriculum:

01 MATHEMATICALLY FLUENT

Students are numerate and capable of applying this numeracy confidently in contexts outside of the classroom.

02 ENJOYMENT

Students have a love of the beauty and logic of mathematics and appreciate maths in a wider context.

03 ANALYTICALLY CRITICAL

Students can analyse and question material presented to them, they are able to have the mathematics available to question the world around them and apply this to solve problems

04 FACILITATING

Students are equipped with the mathematics they need to apply to other disciplines in academia be this geography, psychology, science or business.

05 DISCIPLINARY MATHEMATICS

Students are able to develop a deep understanding of mathematics and are provided with the strongest disciplinary knowledge to access the highest secondary school maths and beyond.

These aims help to create the climate for learning, opportunity and success within our curriculum.

BENTON PARK SCHOOL VALUES

In Maths students develop:

- **Resilience** by problem solving and learning how to apply accurate formulas in context; by green penning assessment and work.
- **Collaboration** by working in pairs, groups and maths team games.
- **Endeavour** by finding a starting point to a problem and not being discouraged; by using goal free problems to find information.
- **Compassion** by listening to peers, learning from mistakes and understanding that failure is the first step to success.
- **Inspiration** by making links to careers and other areas of the curriculum; by realising that maths is everywhere; through celebrating other successes and ideas in the classroom.

YEAR 11

TERM 1

Coordinate Geometry Straight Lines
Introduction to Coordinate Geometry
Calculating the Length of a line
Ratio and Coordinates
Solving problems and Exam questions

Coordinate Geometry Circles
Equation of a circle Centre (0,0)
Equation of a circle Centre (a,b)
Solving problems and Exam questions

Differentiation
Introduction to Differentiation
Tangent and Normal

TERM 2

Differentiation
Stationary Points
Solving problems and Exam questions

Algebra
Solving 3 Simultaneous Equations
Factor Theorem and Algebraic Long Division
Algebraic Fractions
Functions
Sequences
Expanding Brackets Binomial
Solving problems and Exam questions

Trigonometry
Graphs and Exact Values and Basic Equations
Identities and More Equations

TERM 3

Trigonometry
Identities and Proof
Solving problems and Exam questions

Revision and Exam Preparation

Exam Mid June

Matrices and Transformations
Introduction and Multiplication
Matrices and Transformations

AQA Level 2 Certificate in Further Maths

YEAR 12 A LEVEL MATHS