



GCSE MATHS EXTENSION CURRICULUM MAP

- N

Number
- S

Shape
- A

Algebra
- D

Data

Our GCSE Mathematics curriculum is divided into four pathways: Initial, Bronze, Silver and Gold. Students begin at different starting points based on their prior attainment, allowing them to access a curriculum that provides the right level of support and challenge. This structure helps all students make strong progress towards their GCSE.

Students in the Extension set also study AQA Level 2 Certificate in Further Mathematics alongside GCSE Mathematics.

YEAR 9

HT5

N

Silver number
Multipliers
repeated % change,
reverse %, standard
form, estimation

A

Silver algebra
Forming and solving
equations,
factorising singles
brackets

Examinations and
culture week

HT6

A

Silver algebra
Expanding double
brackets, factorising
quadratics, fractions

HT 1

A

Silver algebra
Graphs (linear,
quadratic, cubic,
reciprocal), inequality
graphs, simultaneous
equations, formulae

S

Silver shape
Midpoints, Pythagoras
Theorem,
transformations,
vectors, area/volume
scale factor, circle
theorems,
trigonometry,
volume of cones and
spheres, sectors

HT2

D

Silver data
Venn diagrams, two-
way tables, tree
diagrams, cumulative
frequency, time series

N

Gold number
Indices, bounds,
exponential
functions, recurring
decimals,
surds

HT3

A

Gold algebra
Complete square,
quadratic formula,
quadratic inequalities,
algebraic fractions,
quadratic
simultaneous
equations, proportion,
trigonometric and
exponential graphs,
trigonometric
equations

HT4

A

Gold algebra
Functions,
transforming graphs,
equation of a circle
and tangents,
numerical methods

HT5

S

Gold shape
3D Pythagoras and
trigonometry,
sine/cosine rule,
sectors, surface area
and volume cones,
spheres, congruence,
vectors

Examinations and
culture week

HT6

D

Gold data
Histograms,
sampling, tree
diagrams and
probability,
enumeration

YEAR 10

HT 1

N

Further number
FDP, ratio, product
rule, index laws, surds

A

Further algebra 1
Expressions,
equations, graph
sketching, factor
theorem,
functions, proof,
sequences

HT2

S

Further shape 1
Straight lines,
distance between
2 points, equation of a
circle, equations of
tangents

A

Further algebra 2
Differentiation,
maxima and
minima problems,
sketching
curves

HT3

S

Further shape 2
Multiplying matrices,
the identity matrix,
transforming
matrices,
combinations of
transforming matrices

GCSE revision and
past papers

HT4

**Targeted revision
informed by
assessment data and
mock outcomes.**

**Students consolidate
key topics through
revision loops,
retrieval quizzes,
Tarsia activities,
exam-style questions
and past paper
practice, with a focus
on reasoning and
exam technique.**

HT5

**Personalised revision and intervention to
address remaining gaps in knowledge.**
Students develop confidence through retrieval
practice, revision loops, Tarsias and full past
papers, focusing on exam readiness and
performance.

HT6

YEAR 11



GCSE MATHS MIDDLE CURRICULUM MAP

N Number **S** Shape
A Algebra **D** Data

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YEAR 9

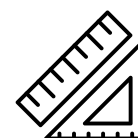
HT5

HT6

N **Bronze number**
Fractions to decimals, comparing %, % change, rounding, HCF/LCM, index laws, operations with fractions

Examinations and culture week

A **Bronze algebra**
Graphs (gradients, real life, quadratic), inequalities, changing the subject of a formula, sequences



$$\frac{b^2 - 4ac}{a}$$

HT 1

HT2

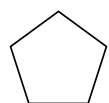
HT3

HT4

HT5

HT6

S **Bronze shape**
Enlargements, angles in polygons, Pythagoras' Theorem, compound units, constructions, bounds, surface area and volume



D **Bronze data**
Experimental probability, scatter graphs, mean from a table

N **Silver number**
Multipliers, repeated % change, reverse %, standard form, estimation



N **Silver number**
Bounds, ratio, proportion

A **Silver algebra**
Forming and solving equations, factorising singles brackets, expanding double brackets, factorising quadratics, fractions

$$y = ax^2 + bx + c$$

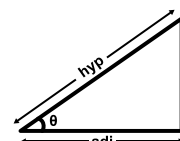
A **Silver algebra**
Graphs (linear, quadratic, cubic, reciprocal), inequality graphs, simultaneous equations, formulae

S **Silver shape**
Midpoints, Pythagoras' Theorem

$$M = \left(\frac{x_1 + x_2}{2}, \frac{y_1 + y_2}{2} \right)$$

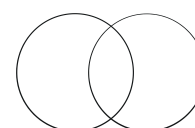
S **Silver shape**
Transformations, vectors, area/volume scale factor, circle theorems, trigonometry, volume of cones and spheres, sectors

Examinations and culture week



D **Silver data**
Venn diagrams, two way tables, tree diagrams, cumulative frequency, time series

N **Gold number**
Indices, bounds, exponential functions, recurring decimals, surds



YEAR 10

HT 1

HT2

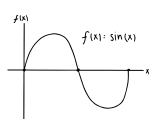
HT3

HT4

HT5

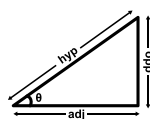
HT6

A **Gold algebra**
Complete square, quadratic formula, quadratic inequalities, algebraic fractions, quadratic simultaneous equations



A **Gold algebra**
Proportion, trigonometric and exponential graphs, trigonometric equations, functions, transforming graphs, equation of a circle and tangents, numerical methods

S **Gold shape**
3D Pythagoras and trigonometry, sine/cosine rule



S **Gold shape**
Congruence, vectors, vector proof

D **Gold data**
Histograms, sampling, tree diagrams and probability, enumeration

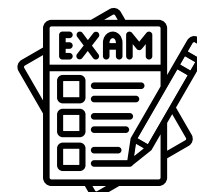


Targeted revision informed by assessment data and mock outcomes.

Students consolidate key topics through revision loops, retrieval quizzes, Tarsia activities, exam-style questions and past paper practice, with a focus on reasoning and exam technique.



Personalised revision and intervention to address remaining gaps in knowledge. Students develop confidence through retrieval practice, revision loops, Tarsias and full past papers, focusing on exam readiness and performance.



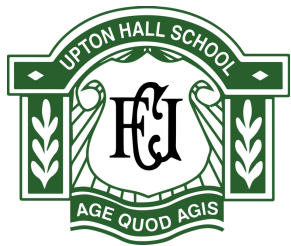
YEAR 11



$$\Delta ABC = \frac{1}{2} ab \sin C$$

$$V = \frac{4}{3} \pi r^3$$

2a



GCSE MATHS SUPPORT CURRICULUM MAP

- N

Number
- S

Shape
- A

Algebra
- D

Data

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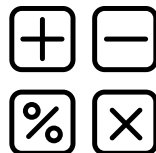
YEAR 9

HT5

HT6

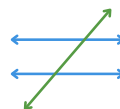
N Initial number
Operation with fractions and decimals, increase/decrease by a %, ratio

Examinations and culture week



A Initial algebra
Using and substituting into formula, expanding and factorising single brackets. Solving equations, plotting graphs

S Initial shape
Angles in parallel lines, constructing shapes, circles, areas and perimeters



$$\frac{b^2 - 4ac}{a}$$

HT 1

HT2

HT3

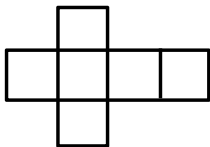
HT4

HT5

HT6

S Initial shape
3D shapes and nets, transformations

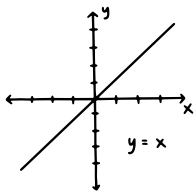
D Initial data
Probability, averages and spread, two way tables, Venn diagrams



N Bronze number
Fractions to decimals, comparing %, % change, rounding, HCF/LCM, index laws, operations with fractions

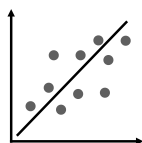
$$\frac{2}{3} + \frac{3}{5} =$$

A Bronze algebra
Graphs (gradients, real-life, quadratic), inequalities, subject of a formula, sequences



S Bronze shape
Enlargements, angles in polygons, Pythagoras' Theorem, compound units, constructions, bounds, surface area and volume

D Bronze data
Experimental probability, scatter graphs, mean from a table

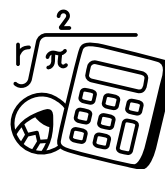


N Silver number
Bounds, ratio and proportion. Multipliers, repeated % change, reverse %, standard form, estimation

Examinations and culture week



A Silver algebra
Forming and solving equations, factorising singles brackets, expanding double brackets



YEAR 10

HT 1

HT2

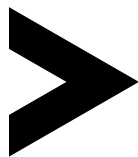
HT3

HT4

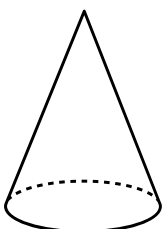
HT5

HT6

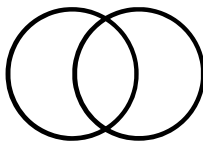
A Silver algebra
Factorising quadratics. Graphs (linear, quadratic, cubic, reciprocal), inequality graphs, simultaneous equations, formulae



S Silver shape
Transformations, vectors, area/volume scale factor, circle theorems, trigonometry, volume of cones and spheres, sectors



D Silver data
Venn diagrams, two-way tables, tree diagrams, cumulative frequency, time series



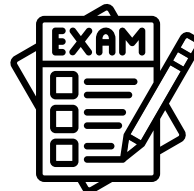
GCSE revision and past papers

Targeted revision informed by assessment data and mock outcomes.

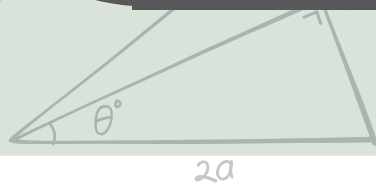
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YEAR 11



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$$V = \frac{4}{3} \pi r^3$$