

Mathematics Learning Journey



Prepares you for further study in:
Mathematics, Physics, Chemistry, Biology,
Engineering, Psychology, Economics, Business

Prepares you for roles in:
Engineering, banking, insurance, accountancy,
finance, business, statistics, data analysis,

Revision

f_x

Changing the subject

Non-linear graphs

Gradients and lines

Algebra

Graphs

YEAR
11

Indices and roots

Functions

Expanding and factorising

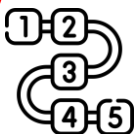
Using graphs



Manipulating expressions

Number

Non calculator methods



Types of number and sequences

Working with circles

Ratios and fractions



Probability

Angles and bearings

Geometry

Proportions and proportional change

Delving into data

Vectors

Percentages and interest



Collecting, representing and interpreting data



Simultaneous equations

Trigonometry

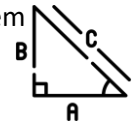


Probability

Rates

Solving ratio and proportion problems

Pythagoras' Theorem



Similarity

YEAR
10

Representations

Reasoning with Proportion

Reasoning with Geometry

Representing equations and inequalities

Congruence, similarity and enlargement

Algebraic representation

\sqrt{x}

Enlargement and similarity



Rotation and translation

Forming and solving equations

Constructions and Congruency



Numbers

Maths and money

Straight-line graphs

Reasoning with Algebra

Constructing in 2 and 3 dimensions

Reasoning with Number

Deduction

Testing conjectures



Three dimensional shapes



Using percentages

%



YEAR
9

The data handling cycle



Line symmetry and reflection

Angles in parallel lines and polygons

Standard index form

Indices

Brackets, equations and inequalities

Tables and probability

Measures of location

Reasoning with Data

Developing Geometry

Developing Number

Algebraic techniques

Representations



Area of trapezia and circles

Number sense

Fractions and percentages

Sequences

Representing data



Constructing, measuring and using geometric notation

Developing Number sense

Prime numbers and proof

π

Ratio and scale

Multiplying and dividing fractions

Addition and subtraction of fractions

Lines and Angles

Reasoning with Number

YEAR
8

Proportional Reasoning

Working in the Cartesian plane

Developing geometric reasoning

Sets and probability



Multiplicative change

Fractional thinking

Directed Number



Solve problems with addition, subtraction multiplication and division

Place value and ordering integers and decimals

Understand and use algebraic notation

Application of Number

Place Value and Proportion

Algebraic Thinking

YEAR
7

welcome

Four operations with directed number



Fractions and percentages of amounts



Fraction, decimal and percentage equivalence

Equality and equivalence

Sequences



What we learn and when we learn it!

Year	Unit 1	Unit 2	Unit 3	Unit 4	Unit 5	Unit 6
7	Algebraic Thinking · Sequences · Understand and use algebraic notation · Equality and equivalence	Place value and proportion · Place value and ordering integers and decimals · Fraction, decimal and percentage equivalence	Applications of Number · Solve problems with addition, subtraction multiplication and division · Fractions and percentages of amounts	Directed number · Four operations with directed number Fractional thinking · Addition and subtraction of fractions	Lines and Angles · Constructing, measuring and using geometric notation · Developing geometric reasoning	Reasoning with Number · Developing Number sense · Sets and probability · Prime numbers and proof
	Proportional reasoning · Ratio and scale · Multiplicative change · Multiplying and dividing fractions	Representations · Working in the Cartesian plane · Representing data · Tables and probability	Algebraic techniques · Brackets, equations and inequalities · Sequences · Indices	Developing Number · Fractions and percentages · Standard index form · Number sense	Developing Geometry · Angles in parallel lines and polygons · Area of trapezia and circles · Line symmetry and reflection	Reasoning with Data · The data handling cycle · Measures of location
	Reasoning with Algebra · Straight-line graphs · Forming and solving equations · Testing conjectures	Constructing in 2 and 3 dimensions · Three dimensional shapes · Constructions and Congruency	Reasoning with Number · Numbers · Using percentages · Maths and money	Reasoning with Geometry · Deduction · Rotation and translation · Pythagoras’ Theorem	Reasoning with Proportion · Enlargement and similarity · Solving ratio and proportion problems · Rates	Representations · Probability · Algebraic representation · Revision Handling data, error intervals, sequences
	Similarity · Congruence, similarity and enlargement · Trigonometry	Developing Algebra · Representing equations and inequalities · Simultaneous equations	Geometry · Angles and bearings · Working with circles · Vectors	Proportions and proportional change · Ratios and fractions · Percentages and interest · Probability	Delving into data · Collecting, representing and interpreting data · Non calculator methods	Number · Types of number and sequences · Indices and roots · Manipulating expressions
11	Graphs · Gradients and lines · Non-linear graphs ·Using graphs	Algebra · Expanding and factorising · Changing the subject · Functions	Revision Reasoning · Multiplicative · Geometric · Algebraic	Revision Communicate · Transforming and constructing ·Listing and describing · Show that	Revision · · ·	Revision · · ·