Curriculum Overview: Mathematics
Year group 8

What your child will learn each half term
This overview shows the key topics, skills, and knowledge your child will be learning in
Maths in **Year 8**. It helps families understand what's being taught, how it builds on
previous learning, and how you can support your child at home.

- **What we are learning**: The topic or focus for the half term.
- **Key knowledge & skills**: What students should understand and be able to do.
- **How we assess learning**: knowledge checks, practical tasks, written responses and formal assessments.
- **Key words to know**: Vocabulary students will learn and use.

Half term	What we are learning	Key Knowledge and Skills	How we will assess learning in this unit	Homework	Key vocabulary for this unit
HT 1	Negative numbers Algebraic manipulation Averages	Calculate with negative numbers Simply algebraic expressions, expand brackets, substitute values into expressions. Calculate the mean, median mode and range (including grouped data)	Check knowledge and understanding during class activities and homework tasks. Formal 1hr exam Covering Topics 1-3	Weekly Fluency Booklet + Shorter tasks to consolidate understanding or to assist with revision.	Negative Simplify Expression Expand Formula Substitute
HT 2	Number Types Perimeter and area Ratio	Identify factors, multiples and prime numbers. Calculate the HCF and LCM. Understand prime factor decomposition Calculate the perimeter of shapes. Calculate the area of rectangles, triangles, parallelograms, trapezia and simple compound shapes. Circumference of a circle Simplify ratios Solve problems involving ratio	Check knowledge and understanding during class activities and homework tasks. Formal 1hr exam Covering Topics 4-6	Weekly Fluency Booklet + Shorter tasks to consolidate understanding or to assist with revision.	Factor Multiple Prime Square Cube Area Perimeter Quadrilateral Simplify Share Circumference
HT 3	Sequences Probability Fractions	Extend and generate sequences Calculate the nth term of sequence Calculate probabilities using fractions. Simplifying fractions. Recognise equivalent fractions. Calculate fractions of amounts. Add and Subtract fractions. Conver between fractions decimals and Percentages	Check knowledge and understanding during class activities and homework tasks. Formal 1hr exam Covering Topics 7-9	Weekly Fluency Booklet + Shorter tasks to consolidate understanding or to assist with revision.	Term, Pattern Arithmetic, Quadratic Chance, Outcome Likely Unlikely Even chance Fari Biased Simplify Equivalent Numerator Denominator

HT 4	Angles Linear Graphs Presenting Data	Understand types of angles. Calculate missing angles on straight lines, around a point, in triangles and in quadrilateral. Calculate interior and exterior angles in regular polygons. Understand bearings Plot simple linear graphs. Interpret real life graphs. Draw and interpret frequency polygons, pie charts, stem and leaf diagrams	Check knowledge and understanding during class activities and homework tasks. Formal 1hr exam Covering Topics 10-12	Weekly Fluency Booklet + Shorter tasks to consolidate understanding or to assist with revision.	Acute Obtuse Reflex Regular Interior Exterior Horizontal Vertical Parallel Perpendicular Bearings
HT5	Measures Volume and Surface Area Equations	Solve problems involving time Use milage charts and bus timetables Interpret Travel Graphs. Calculate the volume and surface area of cuboids. Isometric Drawing. Solve linear equations	Check knowledge and understanding during class activities and homework tasks.	Weekly Fluency Booklet + Shorter tasks to consolidate understanding or to assist with revision.	Am Pm 24-hour clock Interval Faces Edges Vertices Solve
HT 6	Percentages Transformations Decimals Constructions	Calculate percentages of amount. Calculate percentage change. Reflect, rotate, translate and enlarge shapes. Calculate with decimals. Construct simple triangles	Check knowledge and understanding during class activities and homework tasks. End of year assessment Paper 1 Non-Calculator Paper 2 Calculator Covering Topic 1 -14	Weekly Fluency Booklet + Shorter tasks to consolidate understanding or to assist with revision.	percent, decimal, tenth, hundredth, equivalent, reflect, rotate, translate and enlarge