



Overview

In the Year 7 curriculum students study topics from four key strands of mathematics: Number, Algebra, Geometry and Ratio & Proportion. Each strand builds on students' prior learning from the primary curriculum. We focus on developing knowledge and skills in each of the four strands which students will then build on to solve problems and exhibit their mathematical reasoning.

Autumn

Unit 1: Numerical Skills – multiplying and dividing negative numbers, adding and subtracting negative numbers, multiplication, division and *worded multiplication and division

Unit 2: Decimal Manipulation –rounding to the nearest, rounding to decimal places, comparing and ordering decimals, adding and subtracting decimals, multiplying and dividing by 10, 100 and 100 and *multiplying simple decimals

Unit 3: Area – area of rectangles, squares, parallelograms, triangles and compound shapes

Unit 4: Order of Operations – square and cubes, roots, division and multiplication, indices and powers

Unit 5: Introduction to Algebra – forming basic expressions, simplifying expressions, collecting like terms (positive and negative) and inverse operations

Unit 6: Factors and Multiples – factors and HCF; prime numbers; multiples and LCM

Unit 7: Expand and Factorise – expanding single brackets, expanding and simplifying and factorising single brackets

Assessment:

Students will be informally assessed every lesson using questioning, mini whiteboards and marking of independent work.

There will be an assessment checkpoint at the end of each half term

Spring

Unit 9: Fractions Calculations 1 – adding and subtracting fractions, multiplying, dividing fractions and mixed operations

Unit 10: Perimeter – converting measures of length, perimeter of 2D shapes, perimeter of compound shapes and *algebraic perimeter

Unit 11: Averages and Range – mode, range, median, mode and mixed averages and range

Unit 12: Money – change, regular payments, bulk buying, wages, reading meters

Unit 13: Substitution – substitution with positive and negative integers, substitution with squares and cubes, substitution with real life formulas

Unit 14: Coordinates – reading and plotting coordinates, forming shapes, horizontal and vertical lines, coordinate midpoints

Unit 15: Time – converting between units of time, adding and subtracting time, reading timetables, calculating

Assessment:

Mid-Year assessments will take place in January.

Students will be informally assessed every lesson using questioning, mini whiteboards and marking of independent work.

There will be an assessment checkpoint at the end of each half term

Summer

Unit 17: Representing Data 1 – tally charts and frequency tables, pictograms, bar charts, line graphs

Unit 18: Angles – labelling, drawing and estimating angles, angles on a straight line and around a point, properties of triangles including angles, properties of quadrilaterals including angles and multistep angle facts

Unit 19: Transformations – line symmetry, rotational symmetry, rotation, reflection, translation, mixed/combined transformations and describing transformations

Unit 20: Probability – probability scale, listing outcomes, single event probability, sample space, frequency trees, two way tables, simple Venn diagrams

Assessment:

Students will be informally assessed every lesson using questioning, mini whiteboards and marking of independent work.

There will be an assessment checkpoint at the end of each half term End of Year assessments will take place in June.

Useful resources for supporting your child at home:

Videos on Sparx (www.sparxmaths.uk)

Videos on Corbett Maths ([Videos and Worksheets – Corbettmaths](#))

CGP KS3 revision guides/work books ([KS3 Maths](#) | [CGP Books](#))

Homework:

Homework will be set on Sparx (www.sparxmaths.uk).

Homework will be set once a week and students are expected to complete 100% of their homework each week. Homework is bespoke for all students depending on their performance in previous weeks.

Should your child be struggling to access their homework – please encourage them to speak to their teacher.