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 their 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 exhibits their mathematical reasoning.

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Unit 1: Numerical Skills – Decimal place value, negative numbers, rounding, multiplication and division, index form, square and cube numbers and roots

Unit 2: Decimal Manipulation – four operations with decimals, dividing decimals and dividing by decimals

Unit 3: Order of Operations – division, multiplication, addition and subtraction, indices, powers and roots, calculations with brackets

Unit 4: Introduction to Algebra – forming expressions from function machines, collecting like terms, simplifying expressions, forming expressions from statements, solving one or two step equations

Unit 5: Factors and Multiples – multiples and LCM, factors and HCF

Unit 6: Expand and Factorise – expanding and factorising single brackets, dividing algebraic terms

Unit 7: Perimeter – perimeter of 2D shapes, compound shapes and using perimeter

Unit 8: Area – area of rectangles, squares, parallelograms, trapezia, triangles, circles and compound shapes

Assessment:

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

There will be an End of Topic Review at the end of each unit.

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Unit 9: Averages and Range 1 – mode, median, range and mean

Unit 10: Fractions 1 – equivalent fractions, simplifying fractions, converting between improper fractions and mixed numbers, comparing and ordering, converting fractions to decimals and ordering

Unit 11: Fractions Calculations 1 – adding and subtracting fractions, multiplying and dividing fractions

Unit 12: Substitution – substitution with positive and negative integers, substitution with fractions and decimals, substitution with real life formulae

Unit 13: Time – calculating with time, converting units of time, introduction to speed/distance/time, read and interpret distance time graphs

Unit 14: Fractions of Amounts – fraction of an amount, fraction of an amount in context, finding the original amount

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 End of Topic Review at the end of each unit.

Sum

Unit 15: Transformations – rotation, reflection, translation, enlargement

Unit 16: Probability – probability scale, listing outcomes, single event probability, sample space, frequency trees, two way tables

Unit 17: Representing Data 1 – reading and interpreting data tables, line graphs, bar charts

Unit 18: Polygons and Symmetry – properties of polygons, line symmetry, rotational symmetry

Unit 19: 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

Unit 20: Coordinates – reading and plotting coordinates, forming shapes, horizontal and vertical lines, coordinate midpoints

Assessment:

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

There will be an End of Topic Review at the end of each unit.

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.