Salford City Academy The best in everyone<sup>™</sup> **Subject: Mathematics** 

Year 8

In the Year 8 curriculum students study topics from four key strands of mathematics: Number, Algebra, OVERVIEW Geometry and Ratio & Proportion. Each strand builds on their prior learning from Year 7 and 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. Unit 1: Index Laws - Using basic index laws to find the value of numerical powers and simplify Assessment: algebraic expressions Students will be informally assessed every lesson Unit 2: Decimal Manipulation - multiplying and dividing decimals using formal methods using questioning, mini Unit 3: Standard Form - Writing in standard form, multiplying/dividing with standard form, whiteboards and marking adding/subtracting with standard form of independent work. Unit 4: Proportional Reasoning - Unitary/Non-unitary method, best buys, recipes, work rate problems, exchange rates, similar shapes There will be an End of Unit 5: Prime Factorisation - Prime factors and prime factor decomposition Half Termly Assessment covering those units and Unit 6: Mixed Numbers - Mixed number calculations: add/subtract fractions with like/unlike Aut interleaving previous denominators, multiplying fractions and dividing fractions knowledge. Unit 7: Linear Equations - Solving linear equations with four operations, solving multistep equations, solving equations with negative unknowns and equations with unknowns on both sides. Unit 8: Angles in Parallel Lines - Alternate angles, corresponding angles, co-interior angles, vertically opposite angles, solving multistep problems involving all four rules and algebra. Unit 9: Circles - Properties of a circle, circumference, revolutions, perimeter of parts of a circle, area Assessment: of a circle, area of parts of a circle Students will be informally assessed every lesson Unit 10: Area of Composite Shapes - Area of a trapezium, calculating shaded areas, comparing using questioning, mini Spr areas, compound area, whiteboards and marking of independent work. Unit 11: Ratio 1 - writing ratios from diagrams, writing in the form 1:n, simplifying ratios, completing ratios, share into a given ratio, working between two ratios There will be an End of Half Termly Assessment Unit 12: Straight Line Graphs – Straight line graphs, drawing straight line graphs, real life graphs covering those units and interleaving previous knowledge. Unit 13: Fractions, Decimals and Percentages - converting between FDP, ordering FDP Assessment: Students will be informally Unit 14: Percentage Calculations - Percentages of amounts (non calc/calc), percentage change, assessed every lesson reverse percentages using questioning, mini whiteboards and marking Unit 15: Volume and Capacity - Converting between units of capacity and volume, volume of cubes of independent work. and cuboids, basic prisms, compound prisms and cylinders Sum There will be an End of Half Termly Assessment Unit 16: Averages and Range 2 - calculating the mean, reversing the mean, calculating the median, covering those units and changing the median, mode and range, and problem solving interleaving previous knowledge. End of Year assessments will take place in June. Useful resources for supporting your child at home: Homework: Videos on Sparx (www.sparxmaths.uk) Homework will be set on Sparx (www.sparxmaths.uk). Videos on Corbett Maths (Videos and Worksheets - Corbettmaths) 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 CGP KS3 revision guides/work books (KS3 Maths | CGP Books) their performance in previous weeks.

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