Year 8 Big Picture – Maths

Autumn 1 7 weeks	Autumn 2 7 weeks	Spring 1 7 weeks
Content 8.01 Powers and Roots 8.02 Prime factorisation 8.03 Rounding 8.04 Fractions	**Content** 8.05 Solving equations 1 8.06 Coordinates and basic graphs 8.07 Units of measurement	**Content** 8.08 Angles in Parallel lines 8.09 Circumference 8.10 Direct Proportion
Assessment Objectives This is the knowledge, application and skills assessed by the Big Test: • Use integer powers and associated real roots (square, cube and higher), recognise powers of 2, 3, 4, 5 and distinguish between exact representations of roots and their decimal approximations • Use the concepts and vocabulary of prime numbers, factors (or divisors), multiples, common factors, common multiples, HCF, LCM, prime factorisation, including using product notation and the unique factorisation property • Round numbers and measures to an appropriate degree of accuracy [for example, to a number of decimal places or significant figures] • Multiply and divide fractions and mixed numbers **Unit Test (marked by teacher)** Unit test 8.01 **Unit tests (Self-assessment)** Unit tests 8.02, 8.03, 8.04 **Intervention** Students to complete the questions where they made errors (in purple pen)	**Assessment Objectives** This is the knowledge, application and skills assessed by the Big Test: • Use algebraic methods to solve linear equations in one variable (including all forms that require rearrangement) • Model situations or procedures by translating them into algebraic expressions or formulae and by using graphs • Use and understand coordinates and explore and develop algebraic relationships • Use standard units of mass, length, time, money and other measures, including with decimal quantities **Unit Test (marked by teacher)** Unit test 8.06 **Unit tests (Self-assessment)** Unit tests 8.05, 8.07 **Intervention** Students to complete the questions where they made errors (in purple pen)	**Assessment Objectives** This is the knowledge, application and skills assessed by the Big Test: • Understand and use the relationship between parallel lines and alternate and corresponding angles • Calculate and solve problems involving perimeters of 2-D shapes (including circles) and composite shapes • Understand that a multiplicative relationship between two quantities can be expressed as a ratio or a fraction **Big test (marked by teacher)** Big Test 1 **Unit tests (Self-assessment)** Unit tests 8.08, 8.10 **Intervention** Students to complete the questions where they made errors (in purple pen)
ATL Data capture	**ATL Data capture**	**Big Test 1** **Data capture – Big test % and ATL**

Year 8 Big Picture – Maths

Spring 2 5 weeks	Summer 1 6 weeks	Summer 2 7 weeks
Content 8.11 Fractions, decimals and percentages 8.12 Percentage calculations 8.13 Ratio 1	**Content** 8.14 Area of circles and trapezia 8.15 Statistics 1 (presenting and interpreting data) 8.16 Averages and Spread	**Content** 8.17 3-D visualisation 8.18 Volume 1 EOY Revision
Assessment Objectives This is the knowledge, application and skills assessed by the Big Test: • Convert between fractions, decimals and percentages • Solve problems involving percentage change (calc and non-calc) including: percentage increase, decrease, original value problems and simple interest in financial mathematics • Use multipliers • Writing numbers as percentages of other numbers. • Divide a given quantity into two parts in a given *part:part* or *part:whole ratio*; • To express the division of a quantity into two parts as a ratio **Unit Test (marked by teacher)** Unit test 8.12 **Unit tests (Self-assessment)** Unit tests 8.11, 8.13 **Intervention** Students to complete the questions where they made errors (in purple pen)	**Assessment Objectives** This is the knowledge, application and skills assessed by the Big Test: • Derive and apply formulae to calculate and solve problems involving area of circles (including part circles) and trapezia • Construct and interpret appropriate tables, charts, and diagrams, including frequency tables, bar charts, pie charts and vertical line (or bar) charts and stem-and-leaf diagrams for ungrouped and grouped numerical data • Describe, interpret and compare observed distributions of a single variable through appropriate measures of central tendency (mean, mode, median) and spread (range, consideration of outliers) **Unit Test (marked by teacher)** Unit test 8.15 **Unit tests (Self-assessment)** Unit tests 8.14, 8.16 **Intervention** Students to complete the questions where they made errors (in purple pen)	**Assessment Objectives** This is the knowledge, application and skills assessed by the Big Test: • Use the properties of faces, surfaces, edges and vertices of cubes, cuboids, prisms, cylinders, pyramids, cones and spheres to solve problems in 3D • Derive and apply formulae to calculate and solve problems involving volume of cuboids (including cubes) and other prisms (including cylinders), cones, spheres and pyramids • EOY Revision programme- Revision of key topics • Preparation for UL tests **EOY test (marked by teacher)** EOY Paper 1 and Paper 2 **Unit tests (Self-assessment)** Unit test 8.18 **Intervention** Students to complete the questions where they made errors (in purple pen)
ATL Data capture	**ATL Data capture**	**Year 8 UL EOY test (Big Test 2)** **Data capture – Big test and ATL**