

Year 8 Big Picture – Maths

Autumn 1 8 weeks	Autumn 2 7 weeks	Spring 1 6 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 Angles in Parallel lines	Content 8.07 Circumference 8.08 Direct Proportion 8.09 Fractions, decimals and percentages 8.10 Percentage calculations
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 • Understand and use the relationship between parallel lines and alternate and corresponding angles Unit Test (marked by teacher) Unit test 8.05 Unit tests (Self-assessment) Unit test 8.06 Intervention Students to complete the questions where they made errors	Assessment Objectives This is the knowledge, application and skills assessed by the Big Test: • Calculate and solve problems involving perimeters of 2-D shapes (including circles) and composite shapes • Use direct proportion for best buy and recipe problems. • Understand that a multiplicative relationship between two quantities can be expressed as a ratio or a fraction • Use standard units of mass, length, time, money and other measures, including with decimal quantities • 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. 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

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	(in purple pen)	(in purple pen)
ATL Data capture	ATL Data capture	Big Test 1 Data capture – Big test % and ATL
Spring 2 6 weeks	Summer 1 5 weeks	Summer 2 7 weeks
Content 8.11 Ratio 1 8.12 Area of circles	Content 8.13 Statistics 1 (presenting and interpreting data) 8.14 Averages and Spread	Content 8.15 3-D visualisation 8.16 Volume 1 EOY Revision
Assessment Objectives This is the knowledge, application and skills assessed by the Big Test: - Divide a given quantity into two parts in a given <i>part:part</i> or <i>part:whole</i> ratio; - To express the division of a quantity into two parts as a ratio - Derive and apply formulae to calculate and solve problems involving area of circles (including part circles)	Assessment Objectives This is the knowledge, application and skills assessed by the Big Test: - 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)	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
<u>Unit Test (marked by teacher)</u> Unit test 8.11	<u>Unit Test (marked by teacher)</u> Unit test 8.13	<u>EOY test (marked by teacher)</u> EOY Paper 1 and Paper 2
<u>Unit tests (Self-assessment)</u> Unit test 8.12	<u>Unit tests (Self-assessment)</u>	<u>Unit tests (Self-assessment)</u>

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<u>Intervention</u> Students to complete the questions where they made errors (in purple pen)	Unit test 8.14 <u>Intervention</u> Students to complete the questions where they made errors (in purple pen)	Unit test 8.16 <u>Intervention</u> 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