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| **Term** | **INTENT** | **IMPLEMENTATION** | **IMPACT** |
| **Substantive Knowledge**  This is the specific, factual content for the topic, which should be connected into a careful sequence of learning. | **Disciplinary Knowledge (Skills)**  This is the action taken within a particular topic in order to gain substantive knowledge. | **Assessment opportunities**  What assessments will be used to measure student progress?  Evidence of how well students have learned the intended content. |
| **Autumn Term**  **1A**  **Year 7** | **Intent** | Chapter 1: Positive Real Numbers  • Recognise the place values of an integer  • Round a number to the nearest 10, 100 or 1000  • Add, subtract, multiply and divide two positive integers  • Relate addition and subtraction  • Relate multiplication and division  • Understand the meaning of square, cube, square root  and cube root of a number  • Understand index notation  • Apply the order of operations in calculations  • Use calculators to apply operations  • Identify multiples and factors of a number  • Apply the above concepts to solve daily life problems  Chapter 2: Negative Real Numbers  • Recognise the use of negative numbers in the real world  • Represent numbers on a number line  • Identify integers and perform the four operations on them | * Year 7 baseline test * In class teacher assessment through Q&A * End of chapter mini test (with peer marking) * Chapter revision exercise via textbook * End of term review exercises via textbook * End of term formal assessments * Mastery homework with use of mymaths.co.uk * Mymaths topic codes:   1.1: 1931, 1352, 1840  1.2: 1020, 1908, 1986  1.3: 1028, 1908, 1986  1.4: 1914, 1916, 1774  1.5: 1905, 1917, 1041, 1775  1.6: 1053  1.7: 1167, 1932, 1933  1.8: 1035, 1032  2.1: 1069, 1776  2.2: 1068  2.3: 1068 |
| Chapter 1: Positive Real Numbers   * + Place values and rounding integers   + 1.2 Addition   + 1.3 Subtraction   + 1.4 Multiplication   + 1.5 Division   + 1.6 Index notation square roots & cube roots   + 1.7 Order of operations & using a calculator   + 1.8 Factors and multiples   Chapter 2: Negative Real Numbers   * 2.1 Negative numbers and the number line * 2.2 Addition and subtraction of integers * 2.3 Multiplication, division, and combined operations of integers |
| **Autumn Term**  **1B**  **Year 7** | **Intent** | Chapter 3: Introduction to Algebra  • Use letters to represent integers  • Interpret simple algebraic notations  • Substitute integers into simple expressions and formulae  • Write simple expressions and formulae  • Simplify expressions by collecting like terms  • Add and subtract linear expressions  • Expand a single bracket  Chapter 4: Simple Equations  • Understand the concept of equations and balancing  • Solve simple equations in one variable  • Solve simple equations involving brackets  • Write simple equations in one variable to solve problems | * In class teacher assessment through Q&A * End of chapter mini test (with peer marking) * Chapter revision exercise via textbook * End of term review exercises via textbook * End of term formal assessments * Mastery homework with use of mymaths.co.uk * Mymaths topic codes:   3.1: 1982, 1158, 1179  3.2: 1187, 1186  3.3: 1158  3.4: 1179  3.5: 1179  3.6: 1247, 1150  4.1: 1925, 1154  4.2: 1925, 1928  4.3: 1158 |
| Chapter 3: Introduction to Algebra   * 3.1 Letters to Represent Integers * 3.2 Substituting Numbers for Letters * 3.3. Writing Algebraic Expressions and Formulae * 3.4 Like Terms and Unlike Terms * 3.5 Addition and Subtraction of Linear Expressions * 3.6 Expressions with Brackets   Chapter 4: Simple Equations   * 4.1 Equations in One Variable * 4.2 Equations in One Variable with Brackets * 4.3 Writing Equations to Solve Problems |
| **Spring Term**  **2A**  **Year 7** | **Intent** | Chapter 5: Fractions  • Use fraction notation and express one quantity as a fraction of another  • Convert between improper fractions and mixed numbers  • Identify equivalent fractions, simplify fractions and compare fractions  • Find the reciprocal of a number  • Perform the four operations on fractions and on mixed numbers  • Calculate fractions of quantities  • Apply fractions in practical situations  • Identify fractions as rational numbers | * In class teacher assessment through Q&A * End of chapter mini test (with peer marking) * Chapter revision exercise via textbook * End of term review exercises via textbook * End of term formal assessments * Mastery homework with use of mymaths.co.uk * Mymaths topic codes:   5.1: 1220, 1062, 1019  5.2: 1042, 1075, 1771  5.3: 1017, 1074  5.4: 1841, 1046, 1768, 1047, 1769, 1074  5.5: 1046, 1040, 1074  5.6: 1933 |
| Chapter 5: Fractions   * 5.1 Quantities as Fractions * 5.2 Equivalent Fractions and Comparing Fractions * 5.3 Addition and Subtraction of Fractions and Mixed Numbers * 5.4 Multiplication of Fractions * 5.5 Division of Fractions and Mixed Numbers * 5.6 Rational Numbers and Using a Calculator |
| **Spring Term**  **2B**  **Year 7** | **Intent** | Chapter 6: Decimals  • Interpret decimals and write decimals in order of size  • Round decimals to the nearest integer  • Use the four operations with decimals  • Convert between units of measure  • Convert between decimals and fractions  • Solve real-life problems using decimals  • Identify recurring decimals and real numbers  Chapter 7: Percentages  • Define percentage as ‘number of parts per hundred’  • Interpret a percentage as a fraction or a decimal  • Convert a fraction or a decimal to a percentage  • Recognise percentages greater than 100%  • Compare two quantities using percentages  • Express one quantity as a percentage of another  • Find a percentage of a quantity using multiplication  • Reduce or increase a quantity by a percentage | * In class teacher assessment through Q&A * End of chapter mini test (with peer marking) * Chapter revision exercise via textbook * End of term review exercises via textbook * End of term formal assessments * Mastery homework with use of mymaths.co.uk * Mymaths topic codes:   6.1: 1076, 1072, 1004  6.2: 1380, 1381, 1007  6.3: 1011, 1382  6.4: 1008  6:5 1013, 1091  6.6: 1923  6.7: 1773, 1016, 1063  7.1: 1030, 1962, 1963, 1029, 1015  7.2: 1030, 1031, 1962, 1963  7.3: 1060, 1073, 1302 |
| Chapter 6: Decimals   * 6.1 Place values, ordering and rounding of decimals numbers * 6.2 Addition and subtraction of decimals * 6.3 Multiplication of decimals * 6.4 Division of a decimal by a whole number * 6.5 Mental calculation and conversion between units * 6.6 Division of a decimal by a decimal * 6.7 Rational numbers and real numbers   Chapter 7: Percentages   * 7.1 Meaning of a percentage * 7.2 Percentage of a quantity * 7.3 Reducing and increasing a quantity by a percentage |
| **Summer Term**  **3A**  **Year 7** | **Intent** | Chapter 8: Angles, Parallel Lines & Triangles  • Describe a point, a line, a line segment, a ray, and a plane  • Construct lines, line segments and angles using geometry software  • Identify different types of angles  • Recognise the properties of vertically opposite angles, angles on a straight line and angles at a point  • Recognise the properties of angles formed by parallel lines and transversals  • Find unknown marked angles in a diagram using the above properties  • Classify triangles based on their sides and angles  • Understand the general properties of sides and angles of a triangle  • Construct triangles where three sides are given  Chapter 9: Transformations, Symmetry and Congruence  • Translate, rotate and reflect 2D shapes  • Describe transformations in vector form  • Combine transformations  • Recognise and describe reflection symmetry of 2D shapes  • Recognise and describe rotation symmetry of 2D shapes  • Understand the idea of congruence  • Match the sides and angles of two congruent shapes  Chapter 10: Perimeter and Area of Triangles and Circles  • Find the perimeter and area of a triangle  • Find the circumference and area of a circle  • Find the perimeter and area of a semicircle and a quarter of a circle  • Find a length given the perimeter or area of a shape  • Solve problems involving perimeters and areas of composite plane figures formed by rectangles, squares, triangles and circles | * In class teacher assessment through Q&A * End of chapter mini test (with peer marking) * Chapter revision exercise via textbook * End of term review exercises via textbook * End of term formal assessments * Mastery homework with use of mymaths.co.uk * Mymaths topic codes:   8.1: n/a  8.2: 1081, 1847, 1989, 1990, 1082  8.3: 1109  8.4: 1130, 1082, 1090  9.1: 1843, 1127, 1113, 1115, 1839  9.2: 1230, 1114, 1116  9.3: 1148  10.1: 1110, 1129  10.2: 1088  10.3: 1083  10.4: 1129, 1088, 1083 |
| Chapter 8: Angles, Parallel Lines & Triangles   * 8.1 Points, lines, and angles * 8.2 Angles * 8.3 Parallel lines and transversals * 8.4 Triangles   Chapter 9: Transformations, Symmetry and Congruence   * 9.1 Transformations * 9.2 Symmetry * 9.3 Congruence   Chapter 10: Perimeter and Area of Triangles and Circles   * 10.1 Perimeter and Area of a Triangle * 10.2 Circumference of a Circle * 10.3 Area of a Circle * 10.4 Perimeter and Area Problems |
| **Summer Term**  **3B**  **Year 7** | **Intent** | Chapter 11: Surface Area and Volume of Cuboids, including Cubes  • Draw nets of cuboids, including cubes  • Calculate the surface area of cuboids, including cubes  • Calculate the volume of cuboids, including cubes  • Solve problems involving volume and surface area of cuboids, including cubes  Chapter 12: Collecting, Organising & Displaying Data  • Recognise different methods of collecting data  • Identify and write appropriate survey questions  • Organise data  • Create frequency tables  • Construct, analyse and interpret pictograms, vertical line charts, bar charts and compound bar charts | * In class teacher assessment through Q&A * End of chapter mini test (with peer marking) * Chapter revision exercise via textbook * End of term review exercises via textbook * End of term formal assessments * Mastery homework with use of mymaths.co.uk * Mymaths topic codes:   11.1: 1106, 1107  11.2: 1107  11.3: 1137  12.1: 1248, 1249  12.2: 1385, 1235, 1193  12.3: 1193, 1205 |
| Chapter 11: Surface Area and Volume of Cuboids, including Cubes   * 11.1 Nets of Cuboids, including Cubes * 11.2 Surface Area of Cuboids, including Cubes * 11.3 Volumes of Cuboids, including Cubes   Chapter 12: Collecting, Organising & Displaying Data   * 12.1 Collection of Data * 12.2 Organisation of Data * 12.3 Pictograms, Vertical Line Charts and Bar Charts |