| Year 8 |  |  |
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| Autumn Term Year 8 | vle.mathswatch.co.uk | www.kerboodle.co.uk |
| Unit 1 Factors and Multiples | Mathswatch clips | Textbook reference book 2B/2C |
| Understand and Use factors and Multiples | N10 and N11 | Y7 1B/1C textbook Ex 1.8 |
| Recognise Prime Numbers | N30a | Ex 1.1 |
| Express a composite number as a product of its prime numbers | N30b | Ex 1.1 |
| Represent the prime factorisation of a number in index form | N30b | Ex 1.1 |
| Find HCF and LCM of a group of numbers by using prime factorisation | N31a and N31b | Ex 1.2 and Ex 1.3 |
| Understand the use of prime factorisation to find the square root and cube root of a number |  | Ex 1.4 |
| Unit 2 Ratio, Rate and Speed |  |  |
| Understand and use the meaning and representation of ratio | R1a and R1b | Ex 3.1 |
| Describe the relationship between ratio and fractions | R1a, b, R5a | Ex 3.2 |
| Divide a quantity into a given ratio | R5b | Ex 3.1 and Ex 3.2 |
| Understand and use the scale of a map or plan | N8 and R6 | Ex 3.3 |
| Solve problems involving rate in daily life | R8 | Ex 3.4 |
| Solve problems involving speed | R11a | Ex 3.5 |
| Unit 3 Approximation and Estimation |  |  |
| Round numbers to a required number of decimal places | N27b | Ex 2.1 |
| Round numbers to a required number of significant figures | N38 | Ex 2.2 |
| Estimate quantities to an appropriate degree of accuracy and use in calculations | N43a and N43b | Ex 2.3 |
| Unit 4 Algebraic Expressions, Formulae and Proof |  |  |
| Use letters to represent numbers or variables | A2 | Ex 5.1 |
| Interpret algebraic notations | A4 | E× 5.1 |
| Evaluate algebraic expressions and formulae | A6 and A10 | Ex 5.2 |
| Express real-world situations in algebraic terms | $A 3$ and A4 | Ex 5.3 |
| Simplify linear expression | A6 and A8 | Ex 5.4 |
| Prove a statement algebraically |  | Ex 5.5 |
| Unit 5 Equations and Inequalities in one variable |  |  |
| Understand the concepts of equations and the solution of an equation | A12 | Ex 6.1 |
| Solve linear equations in one variable | A12, A19a, A19b | Ex 6.1 |
| Use a bar model to represent equations |  | Ex 6.2 |
| Formulate linear equations in one variable to solve problems | A17 | Ex 6.3 |
| Understand the concept and properties of linear inequalities | A20a and A20b | Ex 6.4 |

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| Year 8 |  |  |
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| Spring Term Year 8 | vle.mathswatch.co.uk | www.kerboodle.co.uk |
| Unit 6 Angles in Quadrilateral and Polygons | Mathswatch clips | Textbook reference book 2B/2C |
| Classify and recognise special quadrilaterals on the basis on their properties | G14 | Ex 9.1 |
| Recognise the properties of polygons, including symmetry properties | G11 | Ex 9.2 |
| Unit 7 Perimeter and Area of Parallelograms and Trapezia |  |  |
| Recap area of rectangle, triangle and circle | G20a, G20c | Y7 book 1B/1C chapter 10 |
| Calculate the area of a parallelogram | G20b | Ex 10.1 |
| Calculate the area of a trapezium | G20d | Ex 10.2 |
| Solve problems involving perimeters and areas of composite plane figures | G24 | Ex 10.3 |
| Unit 8 Coordinates and Linear Functions |  |  |
| Construct the Cartesian coordinate system in two dimensions and state the coordinates of points on it | A1a, A1b | Ex 7.1 |
| Plot a graph of a set of ordered pairs as a representation of a relationship between two variables | A14a | Ex 7.1 |
| Recognise the idea of functions | N26 | Ex 7.2 |
| Recognise linear functions in the form of $y=m x+c$ and draw their graphs | A14b, A14c | Ex 7.3 |
| Find the gradient of a linear graph | A14c | Ex 7.4 |
| Unit 9 Number Patterns |  |  |
| Recognise number patterns and sequences | N12 | Ex 8.1 |
| Find terms of a sequence using a term-to-term or a position-to-term rule | A11a, A11b | Ex 8.1 |
| Recognise arithmetic and geometric sequences | A11a, A11b, A11c | Ex 8.1 |
| Find the formula for the general ( $n$ th) term of an arithmetic sequence | A11c | Ex 8.2 |
| Solve problems involving number patterns and sequences | A11a, A11b, A11c | Ex 8.2 and revision exercise |
| Unit 10 Percentages | Mathswatch clips | Textbook reference book 2B/2C |
| Express a percentage as a fraction or a decimal | N32 | Ex 4.1 (recap Chapter 7 y7 1B/1C) |
| Express one quantity as a percentage of another | N39a | Ex 4.1 |
| Compare two quantities by percentage | N39b | Ex 4.2 |
| Recognise percentages greater than 100\% | N24a | Ex 4.2 |
| Calculate simple interest | N39a | Ex 4.2 |
| Solve problems involving reverse percentage | 110 | Ex 4.3 |
| Calculate percentage increase and decrease in quantities | R9a R9b | Ex 4.4 |

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