



TWO RIVERS
HIGH SCHOOL

Two Rivers High School
Adventurers – Year 9 & 10
Knowledge and Skills

	Autumn 2022-23		Spring 2022-23		Summer 2022-23	
	Integers	Fractions, decimals and percentages	Measures shape and space	Handling information and data	Consolidation	Graphs
Read, write and order numbers up to 1,000,000 (NS1) (N1)						
Recognise, and use positive and negative numbers (NS2) (N1)						
Multiply and divide integers by powers of 10 (NS3)						
<i>Apply the four operations, including formal written methods to integers (N2)</i>						
Use multiplication facts and link with division facts (NS4)						
Use simple formulae expressed in words for one or two-step operations (NS5)						
Calculate the squares of one-digit and two-digit numbers (NS6)						
Follow the order of precedence of operators (NS7) (N3)						
<i>Use the concepts and vocabulary of prime numbers, factors and multiples (N4)</i>						



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Use the concepts and vocabulary of highest common factor, lowest common multiple and prime factorisation (N4)						
Read, write order and compare common fractions and mixed numbers (NS8) (N10)						
Find fractions of whole number quantities or measurements (NS9)						
Read, write order and compare decimals to 3 d.p. (NS10) (N1)						
Add, subtract, multiply and divide decimals up to 2 d.p. (NS11) (N2)						
Approximate by rounding to a whole number or to one or two decimal places (NS12) (N14)						
Read, write order and compare percentages in whole numbers (NS13)						
Calculate percentages of quantities, including simple percentage increases and decreases by multiples of 5% (NS14, M1, M2) (R9)						
Estimate answers to calculations using fractions and decimals (NS15) (N14)						
Recognise and calculate equivalences between common fractions, percentages and decimals (NS16) (N10)						
Work with simple ratio and direct proportions (NS17) (R10)						
Convert between units of different length, weight, capacity and money in the same system (M3)						



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Convert between different units of time (M3) (N13, G14))						
Recognise and make use of simple scales on maps and drawings (M4) (R2, G15))						
Calculate the area and perimeter of simple shapes including rectilinear shapes (M5)						
<i>Know and apply formulae to calculate area triangles, parallelograms and trapezia (G16)</i>						
Calculate the volumes of cubes and cuboids (M6) (G16)						
Draw 2-D shapes and demonstrate an understanding of line symmetry and knowledge of the relative size of angles (M7)						
<i>Identify properties of the faces, surfaces, edges and vertices of cubes, cuboids, prisms, cylinders, pyramids, cones and spheres (G12)</i>						
Interpret plans, elevations and nets of simple 3-D shapes (M8) (G13)						
Use angles when describing position and direction, and measure angles in degrees (M9) (G15)						
Represent discrete data in tables, diagrams and charts including bar charts and line graphs (H1) (S2)						
Represent discrete data in pie charts (H1) (S2)						
Group discrete data and represent grouped data graphically (H2) (S3)						



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Find the mean and range of a set of quantities (H3) (S4)						
Find the mode and median of a set of data and consider outliers (S4)						
Understand probability on a scale from 0 (impossible) to 1 (certain) and use probabilities to compare the likelihood of events (H4)						
Use equally likely outcomes to find the probabilities of simple events and express them as fractions (H5)						
Work with co-ordinates in all four quadrants (A8)						
Plot graphs of equations that correspond to straight-line graphs in the co-ordinate plane (A9)						
Identify and interpret gradients and intercepts of linear functions graphically and algebraically (A10)						
Use and interpret algebraic notation: ab , $3y$, a^2 , a^3 , a^2b , a/b (A1)						
Substitute numerical values into formulae and expressions (A2)						
Simplify and manipulate expressions: collect like terms, multiply a single term over a bracket, take out common factors. Simplify expressions involving sums, products and powers including the laws of indices (A4)						



	Autumn 2023-24		Spring 2023-24		Summer 2023-24	
	Integers	Fractions, decimals and percentages	Measures shape and space	Handling information and data	Consolidation	Algebra
Read, write and order numbers up to 1,00,000 (NS1) (N1)						
Recognise, and use positive and negative numbers (NS2) (N1)						
Multiply and divide integers by powers of 10 (NS3)						
Apply the four operations, including formal written methods to integers (N2)						
Use multiplication facts and link with division facts (NS4)						
Use simple formulae expressed in words for one or two-step operations (NS5)						
Calculate the squares of one-digit and two-digit numbers (NS6)						
Follow the order of precedence of operators (NS7) (N3)						



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Use the concepts and vocabulary of prime numbers, factors and multiples (N4)						
Use the concepts and vocabulary of highest common factor, lowest common multiple and prime factorisation (N4)						
Read, write order and compare common fractions and mixed numbers (NS8) (N10)						
Find fractions of whole number quantities or measurements (NS9)						
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Add, subtract, multiply and divide decimals up to 2 d.p. (NS11) (N2)						
Approximate by rounding to a whole number or to one or two decimal places (NS12) (N14)						
Read, write order and compare percentages in whole numbers (NS13)						
Calculate percentages of quantities, including simple percentage increases and decreases by multiples of 5% (NS14, M1, M2) (R9)						
Estimate answers to calculations using fractions and decimals (NS15) (N14)						
Recognise and calculate equivalences between common fractions, percentages and decimals (NS16) (N10)						
Work with simple ratio and direct proportions (NS17) (R10)						



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Convert between units of different length, weight, capacity and money in the same system (M3)						
Convert between different units of time (M3) (N13, G14))						
Recognise and make use of simple scales on maps and drawings (M4) (R2, G15))						
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Represent discrete data in pie charts (H1) (S2)						



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Group discrete data and represent grouped data graphically (H2) (S3)						
Find the mean and range of a set of quantities (H3) (S4)						
<i>Find the mode and median of a set of data and consider outliers (S4)</i>						
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Use and interpret algebraic notation: ab , $3y$, a^2 , a^3 , a^2b , a/b (A1)						
Substitute numerical values into formulae and expressions (A2)						
Simplify and manipulate expressions: collect like terms, multiply a single term over a bracket, take out common factors. Simplify						



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<i>expressions involving sums, products and powers including the laws of indices (A4)</i>						
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