

Chapter	Time	Topic Break-Down	Learning Objectives (Students will be able to)
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10: Ratio and proportion and rates of changes: Ratio, speed	12	10.1	Ratio	Simplify a ratio
				Express a ratio as a fraction
				Divide amounts into given ratios
				Complete calculations from a given ratio and partial information
		10.2	Speed, distance and time	Recognise the relationship between speed, distance and time
				Calculate average speed from distance and time
				Calculate distance travelled from the speed and the time taken
				Calculate the time taken on a journey from the speed and distance
		10.3	Proportion problems	Recognise and solve problems that involve direct & inverse proportion
		10.4	Best buys	Find the cost per unit mass
				Find the mass per unit cost
				Use the above to find which product is better value

11: Geometry and measure: Perimeter and area	13	11.1	Rectangles	Calculate the perimeter and area of a rectangle
		11.2	Compound shapes	Calculate the perimeter and area of a compound shape made from rectangles
		11.3	Area of a triangle	Calculate the area of a triangle
				Use the formula for the area of a triangle
		11.4	Area of parallelogram	Calculate the area of a parallelogram
				Use the formula for the area of a parallelogram
		11.5	Area of a trapezium	Calculate the area of a trapezium
				Use the formula for the area of a trapezium
		11.6	Circles	Recognise terms used for circle work
				Calculate the circumference of a circle
		Calculate the area of a circle		
11.7	Answers in terms of PI	Give answers for circle calculations in terms of PI		

Week Commencing 17th October 2022 - Revision & Assessment

Half Term

Chapter	Time	Topic Break-Down	Learning Objectives (Students will be able to)
12: Geometry and measures: Transformations	8	12.1 Rotational symmetry	Work out the order of rotational symmetry for a 2D shape Recognise shapes with rotational symmetry
		12.2 Translation	Translate a 2D shape
		12.3 Reflections	Reflect a 2D shape in a mirror line
		12.4 Rotations	Rotate a 2D shape about a point
		12.5 Enlargement	Enlarge a 2D shape by a scale factor
		12.6 Use more than one transformation	Use more than one transformation
		12.7 Vectors	Represent vectors Add and subtract vectors.
		13: Probability: Probability and events	8
13.2 Probability that an outcome will not happen	Calculate the probability of an outcome not happening when you know the probability of that outcome happening		
13.3 Mutually exclusive and exhaustive outcomes	Recognise mutually exclusive, complementary and exhaustive events		
13.4 Experimental probability	Calculate experimental probabilities and relative frequencies Recognise different methods to estimate probabilities		
13.5 Expectation	Predict the likely number of successful events, given the number of trials and the probability of any one solution		
13.6 Choices and outcomes	Apply systematic listing and counting strategies to identify all outcomes for a variety of problems		
14: Geometry and measures: Volumes and surface areas of prisms	8		
		14.2 Volume and surface area of a cuboid	Calculate the volume and surface area of a cuboid
		14.3 Volume and surface area of a prism	Calculate the volume and surface area of a prism
		14.4 Volume and surface area of a cylinders	Calculate the volume and surface area of a cylinder
15: Algebra: Linear equations	3	15.1 Solving linear equations	Solve linear equations such as $3x - 1 = 11$ where the variable only appears on one side Use inverse operations and inverse flow diagrams Solve equations by balancing

Week Commencing 12th December 2022 - Revision & Assessment

End of Autumn Term

Chapter	Time	Topic Break-Down	Learning Objectives (Students will be able to)
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15: Algebra: Linear equations	7	15.1	Solving linear equations	Solve equations in which the linear variable appears in the numerator of a the fraction
		15.2	Solving equations with brackets	Solve equations where you have to first expand brackets
		15.3	Solving equations with the variable on both sides	Solve equations where the variable appears on both sides of the equals sign.

16: Ratio and proportion and rates of chang: Percentages and compound measures	16	16.1	Equivalent percentages, fractions and decimals	Convert percentags to fractions and decimals and vice versa
		16.2	Calculating a percentage of a quantity	Calculate a percentage of a quantity
		16.3	Increasing and decreasing quantities by a percentage	Increase and decrease quantities by a percentage
		16.4	Expressing one quantity as a percentage of another	Express one quantity as a percentage of another Work out percentage change
		16.5	Compound measures	Recognise and solve problems involving the compound measures of rates of pay, density and pressure.

Week Commencing 6th February - Revision & Assessment

Half Term

Chapter	Time	Topic Break-Down	Learning Objectives (Students will be able to)
17. Ratio and proportion and rates of change: Percentages and variation	8	17.1 Compound interest and repeated percentage change	Calculate simple interest
			Calculate compound interest
			Solve problems involving repeated percentage change
		17.2 Reverse percentages (working out the original value)	Calculate the original amount, given the final amount, after a known percentage increase or decrease
		17.3 Direct proportion	Solve problems in which two variables have a directly proportional relationship
Recognise graphs that show direct variation			
17.4 Inverse proportion	Solve problems in which two variables have an inversely proportional relationship		
18: Statistics: Representation and interpretation	10	18.1 Sampling	Obtain a random sample from a population
			Collect unbiased and reliable data for a sample
		18.2 Pie Charts	Draw and interpret pie charts
		18.3 Scatter Diagrams	Draw, interpret and use scatter diagrams
			Draw and use a line of best fit
18.4 Grouped data and averages	Identify the modal group		
	Calculate an estimate of the mean from a grouped table		
Week Commencing 27th March - Revision & Assessment			
End of Spring Term			

Chapter	Time	Topic Break-Down	Learning Objectives (Students will be able to)
19: Geometry and measures: Constructions and loci	10	19.1 Constructing triangles	Construct accurate drawings of triangles, using a pair of compasses, a protractor and a straight edge.
		19.2 Bisectors	Construct the bisectors of lines and angles Construct angles of 60 and 90 degrees
		19.3 Defining a locus	Draw a locus for a given rule
		19.4 Loci problems	Solve practical problems using loci
20: Geometry and measures: Curved shapes and pyramids	10	20.1 Sectors	Calculate the length of an arc Calculate the area and angle of a sector
		20.2 Pyramids	Calculate the volume and surface area of a pyramid
		20.3 Cones	Calculate the volume and surface area of a cone
		20.4 Spheres	Calculate the volume and surface area of a cone
Week Commencing 22nd May 2022 - Revision & Assessment			
Half Term			

Chapter	Time	Topic Break-Down	Learning Objectives (Students will be able to)
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21: Algebra: Number and sequences	8	21.1	Patterns in number	Recognise patterns in number sequences
		21.2	Number sequences	Recognise how number sequences are built up Generate sequences, given the nth term
		21.3	Finding the nth term of a sequence	Find the nth term of a sequence
		21.4	Special sequences	Recognise and continue some special number sequences Understand how prime, odd and even numbers interact in addition, subtraction and multiplication problems.
		21.5	Generate rules from given patterns	Find the nth term from practical problems involving sequences

Week Commencing 12th June 2023 - Revision

Week Commencing 19th June 2023 - End of Year Exams

Week Commencing 26th June 2023 - End of Year Exams