Chapter	Time	Topic Break-Down		Learning Objectives (Students will be able to)
6: Angles	14	6.1	Angle facts	Know the sum of angles on a straight line and around a point
				Use vertically opposite angles
		6.2	Triangles	To solve missing angles problems in triangles
		6.3	Angles in a polygon	To work out the sum of the interior angles in a polygon
		6.4	Regular polygons	To be able to calculate the size of the interior and exterior angles of any regular polygon
		6.5	Angles in parallel lines	To solve problems involving alternate, corresponding, allied and opposite angles
		6.6	Special quadrilaterals	To be able to calculate the size of angles in special quadrilaterals using their geometric properties
		6.7	Scale drawings and bearings	To read scale drawings and maps
				To draw scale drawings
				To use a bearing to specify a direction
5: Ratio and proportion	8	5.1	Ratio	Simplify a ratio
				Express a ratio as a fraction
				Divide amounts in given ratios
				Complete calculations from a given ratio and partial information
		5.2	Converting Ratios	Expressing ratios as a fraction or percentage (including with algebra) Corbett 269a Ap
		5.3	Ratios with one quantity given	Solve ratio problems given one quantity (Corbett maths 271 Workout & Apply) (minimally different difference given worksheet)
		5.4	Questions with "more" or "less" in them	Solve ratio problems given the difference (Corbett Maths 269a Workout & Apply) (minimally different difference given worksheet)
		5.50	Two-part to three-part ratios	Combine two two-part ratios to a three part ratio (Corbett maths 271a) (Mathsgenie Ratio Problems grade 5)
		5.6	Working with Ratios and equations	Work interchangibly with Ratios and equations (FM textbook exercise).

Week Commencing 17th October 2022 - Revision & Assessment

Half Term

Chapter	Time	Topic Break-Down		Learning Objectives (Students will be able to)
5: Ratio and proportion	11	5.7	Direct proportion problems	Recognise and solve problems that involve direct proportion
		5.8	Best buys	Find either the cost per unit mass or the mass per unit cost and use this to find which product is cheaper
		5.9	Compound measures	Recognise and solve problems involving the compound measures of rates of pay, speed, density and pressure
		5.10	Compound interest and repeated percentage change	Calculate simple and compound interest
				Solve problems involving repeated percentage change
		5.11	Reverse percentage (working out the original amount)	Calculate the original amount after a known percentage change
1: Basic Number	10	1.1	Solve real-life problems	Solve problems set in a real-life context
		1.2	Multiplication and division with decimals	Multiple a decimal number by another decimal number
				Divide by a decimal number
		1.3	Approximation of Calculations	Round to a given number of significant figures
				Estimate before calculating
				Round a calcuation to give a reasonable answer
		1.4	Multiples, factors, prime numbers, powers and roots	Find multiples and factors
				Idenitify prime factors
				Idenitiify square and triangular numbers
				Find square roots
				Identitify cubes and cube roots
		1.5	Prime Factors, LCM and HCF	Identify prime factors
				Identify the least common multiple of two numbersa
				Identify the highest common factor of two multiples
		1.6	Negative numbers	Multiply and divide positive and negative numbers

Week Commencing 12th December 2022 - Revision & Assessment

End of Autumn Term

Chapter	Time		Topic Break-Down	Learning Objectives (Students will be able to)
2: Fractions, ratio and proportion	11	2.1	One quantity as a fraction of another	Find one quantity as a fraction of another
		2.2	Adding, subtracting and calculating with fractions	Add and subtract fractions with different denominators
		2.3	Multiplying and dividing fractions	Multiple proper fractions and mixed numbers
				Divide by fractions
		2.4	Fractions on a calculator	Use a calculator to accurately solve problems involving fractions
		2.5	Increasing and decreasing quantities by a percentage	Increase and decrease quantities by a percentage
		2.6	Expressing one quantity as a percentage of another	Work out percentage change
				Express one quantity as a percentage of another

Chapter	Time		Topic Break-Down	Learning Objectives
3: Statistical Diagrams and averages	4	3.1	Statistical representation	Draw and interpret bar charts and pie charts
				Draw and interpret line graphs
		3.3	Scatter Diagrams	Draw, interpret and use scatter diagrams
				Draw and use a line of bets fit

Chapter	Time		Topic Break-Down	Learning Objectives
3: Statistical Diagrams and averages	6	3.2	Statistical measures	Use averages to solve more complex problems
				Identify the advantages and disadvantages of each type of average and learn which one to use in different situations
				Work out and use the range of a set of data
				Calculate the mode, the median and the mean from a frequency table
				Identify the modal group
				Estimate the mean from a grouped frequency table

Chapter	Time		Topic Break-Down	Learning Objectives
4: Number and sequences	4	4.1	Patterns in number	Recognise patterns in number sequences
		4.2	Number sequences	Generate sequences, given the nth term
		4.3	Finding the nth term of a sequence	Find the nth term of a sequence

Week Commencing 6th February - Revision & Assessment

Half Term

Chapter	Time		Topic Break-Down	Learning Objectives (Students will be able to)
4: Number and sequences	**6**	4.4	Special sequences	Recognise and continue some special number sequences such as square numbers
		4.5	Generate rules from given patterns	Find the nth term from practical problems involving sequences
		4.6	The nth term of a quadratic sequence	Generate the terms of a quadratic seqeunce from the nth term
		4.7	Find the nth term for quadratic sequences	Work out the nth term of a quadratic sequence
7: Transformations, constructions and Loci	**16**	7.1	Congruent triangles	Demonstrate that two triangles are congruent
		7.2	Rotational symmetry	Find the order of rotational symmetry for a 2D shape
				Recognise shapes with rotational symmetry
		7.3	Transformations	Translate, reflect, rotate and enlarge a 2D shape
		7.4	Combinbations of Transformations	Combine transformtions
		7.5	Bisectors	Construct the bisectors of lines and angles
				Construct angles of 60 and 90 degrees
		7.6	Defining a locus	Draw a locus for a given rule
		7.7	Loci problems	Solve practical problems using loci
		7.8	Plans and elavations	Construct and interpret plans and elevations of 3D shapes

Week Commencing 27th March - Revision & Assessment

End Of Spring Term

Chapter	Time	Topic Break-Down		Learning Objectives (Students will be able to)
8. Algebraic manipulation	**13**	8.1	Basic algebra	Recognise expressions, equations, formulae and identities
				Substitute into, manipulate and simplify algebraic expressions
		8.2	Factorisation	Factorise an algebraic expression
		8.3	Quadratic expansion	Expand two binomials to obtain a quadratic expression
		8.4	Expanding squares	Expand the square of a binomial
		8.5	More than two binomials	Expand more than two binomials
		8.6	Quadratic factorisation	Factorise a quadratic expression of the form "x2 + ax + b" into two linear brackets
		8.7	Factorising ax2 + ax + b	Factorise a quadratic expression of the form "ax2 + ax + b" into two linear brackets
		8.8	Changing the subject of a formula	Change the subject of a formula

Week Commencing 15th May - Revision & End of year exams

Week Commencing 22nd May - Revision & End of year exams

Half Term

Chapter	Time	Topic Break-Down		Learning Objectives (Students will be able to)
9: Length, area and volume	14	9.1	Circumference and area of a circle	Calculate the circumfernce and area of a circle
		9.2	Area of a parallelogram	Calculate the area of a parellelogram
		9.3	Area of a trapezium	Calculate the area of a trapezium
		9.4	Sectors	Calculate the length of an arc
				Calculate the area and angle of a sector
		9.5	Volume of a prism	Calculate the volume of a prism
		9.6	Cyclinders	Calculate the volume and surface area of a cyclinder
		9.7	Volume of a pyramid	Calculate the volume of pyramids
		9.8	Cones	Calculate the volume and surface area of a cone
		9.9	Spheres	Calculate the volume and surface area of a sphere

Week Commencing 10th July - Revision and Assessment

End of Summer Term