

Year:

Subject:

Mathematics

VISION

At Nobel we work hard to give students the confidence to acquire mathematical skills that they can use throughout their lifetime, we hope students can share our love of mathematics and enjoy the challenge it is able to offer.

	Foci	Assessment	Knowledge Organiser
Unit 1	 Numbers and Numerals. Place value systems including base 10 and other bases 	Online assessment on Teams for all students. In class assessment.	
Unit 2	 Axioms and Arrays. Commutativity, associativity and distributivity 	Online assessment on Teams for all students. In class assessment.	
Unit 3	 Factors and Multiples. Factors, primes and multiples Prime Factors. Powers. 	Online assessment on Teams for all students. In class assessment.	Factors and Multiples
Unit 4	 Order of Operations. Square and cube numbers Representing the structure of number Establishing the order of operations. 	Online assessment on Teams for all students. In class assessment. Half termly assessment to cover units 1-4.	Order of Operations
Unit 5	 Positive and Negative Numbers. Negative numbers in context. Using negative numbers with all four operations. 	Online assessment on Teams for all students. In class assessment.	Negative Numbers
Unit 6	 Expression, Equations and Inequalities. Writing expressions. Recognising equivalent expressions. Forming equations. Forming inequalities. 	Online assessment on Teams for all students. In class assessment. Half termly assessment to cover units 1-6.	Equations and Expressions



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	Foci	Assessment	Knowledge Organiser
Unit 7	 Angles. Measuring and drawing angles. Angles on a straight line and around a point. Angles in parallel lines. Creating expressions from angle facts. 	Online assessment on Teams for all students. In class assessment.	<u>Angles</u>
Unit 8	 Classifying 2D shapes. Classifying polygons according to their properties. Rotational and line symmetry. Internal angle sum of triangles and quadrilaterals. 	Online assessment on Teams for all students. In class assessment.	2D shapes
Unit 9	 Constructing Triangles and Quadrilaterals. Using a ruler, protractor and compasses to construct 2-D shapes. Using properties of quadrilaterals and triangles to explore standard constructions. 	Online assessment on Teams for all students. In class assessment. Half termly assessment to cover units 7-9.	Constructions
Unit 10	 Coordinates. Plotting points in all four quadrants. Horizontal and vertical lines. Midpoints of line segments. Problem solving on a coordinate grid. 	Online assessment on Teams for all students. In class assessment.	Coordinates
Unit 11	 Area of 2D Shapes. Area of triangles and quadrilaterals. Formulae and solving equations. 	Online assessment on Teams for all students. In class assessment.	Area of Shapes
Unit 12	 Transformations of 2D Shapes. Translation, rotation and reflection of an objects on a cartesian plane. Enlargement by a positive scale factor. 	Online assessment on Teams for all students. In class assessment. Half termly assessment to cover units 7-12.	<u>Transformations</u>



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	Foci	Assessment	Knowledge Organiser
Unit 13	 Prime Factor Decomposition. Prime factor decomposition. LCM and HCF. Square roots and cube roots. 	Online assessment on Teams for all students. In class assessment.	Prime Factors
Unit 14	 Conceptualising and Comparing Fractions. Equivalent fractions. Converting between fractions and decimals. Recurring decimals. 	Online assessment on Teams for all students. In class assessment.	<u>Fractions</u>
Unit 15	 Manipulating and Calculating with Fractions. Multiply and divide fractions. Fractions of amounts. Mixed numbers and improper fractions. Addition and subtraction of fractions. 	Online assessment on Teams for all students. In class assessment.	<u>Fractions</u>
Unit 16	 Ratio. Ratio notation. Understand the relationship between ratio and fractions. Working with ratios and quantities. 	Online assessment on Teams for all students. In class assessment.	<u>Ratio</u>
Unit 17	 Percentage. Equivalence to fractions and decimal fractions. Percentage of an amount. Percentage increase and decrease. Finding the original amount. Using percentages, fractions and decimals in different contexts including probability. 	End of year test to assess all modules.	<u>Percentages</u>