Topic	MYP 1	MYP 2	MYP 3	MYP 4	MYP 5 (Standard)	MYP 5 (Extended)
Numerical and abstract reasoning						
Number						
Number systems and place value	The Hindu-Arabic number system Define: • whole numbers • natural numbers • place value (up to 1 hundred thousands)	Define: • integers or whole numbers • natural numbers • place value (up to 1 trillion)	Define: • rational and irrational numbers			
	Big numbers (million, billion, trillion)					
Operations with whole numbers	• Introduce “sum” and “difference” • Use “columns” for addition and subtraction	• Use “sum” and “difference” • Use number strategies for addition and subtraction				
	• Introduce "product" and "quotient" • Multiply and divide by powers of 10 • Use columns to multiply (up to 3 by 2 digits) • Use columns to divide (including remainder)	• Use "product" and "quotient" • Use number strategies for multiplication and division				
	Problems with multiple operations					
	Order of operations: • only one set of brackets • no fraction lines	Order of operations: • two sets of brackets • negatives • fraction lines	Order of operations	Order of operations	Review order of operations (Assumed knowledge)	
	Introduce 0 and 1, multiplication and division by 0 and 1	Multiplication and division by 0 and 1				
				Absolute value of a number	Review absolute value (Assumed knowledge)	Review absolute value (with absolute value function)
Negative numbers	• Opposites • Placing negatives on number line • Ordering numbers • Words indicating positive and negative • Use the number line to add and subtract positive numbers where the answer may be negative	• Placing negatives on number line • Ordering numbers • Words indicating positive and negative • Use the number line to add and subtract positive numbers where the answer may be negative • Order of operations with negative numbers • Calculator use				
	Adding and subtracting negatives using number lines	Rules for adding and subtracting negatives	Review rules for addition and subtraction of negatives			
	Multiplying and dividing negatives by observing patterns with signs	Rules for multiplying and dividing negatives	Review rules for multiplication and division of negatives			

Topic	MYP 1	MYP 2	MYP 3	MYP 4	MYP 5 (Standard)	MYP 5 (Extended)
		• Introduce negative fractions as division • Place negative fractions on number line • Operations with negative fractions	• Negative fractions on number line • Operations with negative fractions			
		Negative decimals on number line	Negative decimals on number line			
Fractions	• Introducing "numerator", "denominator". • Use shapes to describe fractions	• Use shapes to describe fractions	Review: • fractional simplifying • operations with fractions, including with negative fractions	Review operations with fractions (Assumed knowledge)		
	Write fractions as division, and as whole numbers	Write fractions (where the numerator and denominator may be positive or negative) as division, and whole numbers				
	Converting between improper fractions and mixed numbers	Converting between positive or negative improper fractions and mixed numbers				
	Placing fractions on a number line. Use number line to order fractions.	Placing positive and negative fractions on a number line				
	Finding fractions of quantities by multiplication	Finding fractions of quantities by multiplication				
	• Equal fractions and lowest terms by multiplying or dividing numerator and denominator by the same number • Use equal fractions to compare fractions	• Equal fractions and lowest terms • Use equal fractions to compare fractions • Cancelling common factors • Express one quantity as a fraction of another • Lowest common denominator				
	Add and subtract fractions, including mixed numbers • same denominator • related denominators (one is a multiple of the other)	Add and subtract fractions, including unrelated denominators				
	• Multiply fractions by a whole number	• Multiply fractions by a whole number • Reciprocals • Multiply and divide positive and negative fractions, including mixed numbers				
Decimals	• Place value (up to thousandths) • Convert between words and number form	• Place value (up to thousandths)	Review: • Decimals • Placing decimals on a number line • Rounding with decimals • Conversion between fractions and decimals • Add and subtract decimals • Multiply and divide decimals			
	• Placing decimals on number line, where number line is given. • Ordering decimal numbers	• Placing decimals on number line, including drawing the number line. • Ordering decimal numbers				
	Rounding to a number of decimal places (up to 3), or nearest whole number	Rounding to a number of decimal places (up to 4 decimal places), to a number of significant figures (up to 3), or nearest whole number				

Topic	MYP 1	MYP 2	MYP 3	MYP 4	MYP 5 (Standard)	MYP 5 (Extended)
	Converting between fractions and decimals (up to 3 decimal places)	Converting between positive and negative fractions and decimals				
	Using columns to add and subtract decimals (up to 3 decimal places)	Using columns to add and subtract decimals (up to 4 decimal places)				
	Multiply and divide decimals by powers of 10	Multiply and divide decimals by powers of 10				
	Multiply decimals by whole numbers	Multiply two decimal numbers				
	Divide decimals by whole numbers	Divide decimals by whole numbers and other decimals				
			Terminating and recurring decimals	Review of terminating and recurring decimals (Assumed knowledge)		
Percentage	Understanding percentages	Understanding percentages		Review percentage (Assumed knowledge)	Review percentage (Assumed knowledge)	
	Convert between percentages and fractions using a fraction with denominator 100	Convert between percentages and fractions by multiplying/dividing by 100%	Convert between fractions and percentages by multiplying/dividing by 100%			
	Convert between percentages and decimals by multiplying/dividing by 100%	Convert between percentages and decimals by multiplying/dividing by 100%	Review conversion between percentages and decimals			
	Placing percentages on a number line					
	Expressing one quantity as a percentage of another • Denominator must be factor/multiple of 100	Expressing one quantity as a percentage of another	Expressing one quantity as a percentage of another			
	• Finding percentages of quantities	• Finding percentages of quantities, including fractional/decimal percentages	• Finding percentages of quantities • The unitary method for percentages			
	• Percentage increase and decrease using two steps	• Percentage increase and decrease using two steps • Finding percentage change	• Percentage increase and decrease using a multiplier • Finding percentage change • Finding the original amount			
Exponents	• Exponent notation with numbers	• Exponent notation with numbers • Write numbers in exponent form, including as product of primes	• Write numbers in exponent form, including as product of primes • Exponent notation with negative bases	• Exponent notation with negative bases	• Review of exponent notation (Assumed knowledge)	
	Squares and cubes	Squares and cubes				
			• Exponent laws with variables • Expansion laws • Zero and negative exponents	• Exponent laws • Zero and negative exponents	Review exponent laws	Review exponent laws Rational exponents
				Standard form (scientific notation)	Standard form	Standard form

Topic	MYP 1	MYP 2	MYP 3	MYP 4	MYP 5 (Standard)	MYP 5 (Extended)
Radicals		• Square roots and cube roots (integer result)	• Square and cube roots, including irrational results using calculator	• Radicals and surds • Properties of radicals • Simplest surd form • nth roots • Operations with radicals • Division by $\sqrt{a}$ (rationalising the denominator)	• Radicals and surds • Properties of radicals • Simplest surd form • Operations with radicals • Division by $\sqrt{a}$ (rationalising the denominator)	• Radicals and surds • Properties of radicals • Simplest surd form • Operations with radicals • Division by $\sqrt{a}$, $a \pm b\sqrt{c}$, $\sqrt{a} \pm \sqrt{b}$ (rationalising the denominator) • Equality of surds
Sets and logic			• Sets • Elements • Set notation • Equal sets • Subsets • Empty set • Complement of a set • Disjoint sets	• Sets • Elements • Set notation • Equal sets • Subsets • Empty set • Complement of a set • Disjoint sets • Special number sets	Review: • Sets • Special number sets	Review: • Sets • Special number sets
			Intersection and union	Intersection and union	Review Intersection and union	Review intersection and union
			Venn diagrams (for 2 sets): • Shading regions • Numbers in regions • Problem solving	Venn diagrams (for up to 3 sets): • Shaded regions • Numbers in regions • Problem solving (2 sets only)	Venn diagrams: • Shaded regions • Numbers in regions • Problem solving (up to 3 sets)	Venn diagrams: • Shaded regions • Numbers in regions • Problem solving (up to 3 sets)
				Interval notation	Interval notation	Interval notation
				Logic, propositions, compound statements, truth tables (Online)		
Number properties	• Divisibility • Even and odd • Divisibility tests for 2, 3, 4, 5, 6, 10	• Divisibility • Even and odd • Divisibility tests for 2, 3, 4, 5, 6, 9, 10, 11				
	• Factors of numbers: o Determine whether one number is a factor of another o List factors of a number o Factor pairs o Writing numbers as product of prime factors • Finding highest common factor of 2 numbers by listing factors	• Factors of numbers (listing factors, factor pairs) • Finding highest common factor of 2 numbers by writing each number as a product of prime factors	• Review factors • Finding highest common factor of 2 numbers by writing each number as a product of prime factors	• Review highest common factor and multiples (Assumed knowledge)		
	• Multiples of numbers	• Multiples • Finding the lowest common multiple of 2 numbers by listing multiples	• Review multiples • Find the lowest common multiple of 2 or 3 numbers by writing each number as a product of prime factors			
	• Define prime and composite numbers • Write numbers as the product of prime factors by listing factors	• Use repeated division or a factor tree to write numbers as the product of prime factors	• Review prime and composite numbers • Write numbers as the product of prime factors	• Write numbers as the product of prime factors		

Topic	MYP 1	MYP 2	MYP 3	MYP 4	MYP 5 (Standard)	MYP 5 (Extended)
Number lines	Placing natural numbers on a number line, ordering numbers, and performing operations					
	Placing negative numbers on a number line, perform operations	Placing negative numbers on a number line, perform operations				
	Placing fractions on a number line	Placing positive and negative fractions on a number line	Review fractions on a number line			
	• Placing decimals on a number line • Use a number line to order decimals	• Placing positive and negative decimals on a number line • Use a number line to order decimals	• Placing positive and negative decimals on a number line			
Rounding and estimation	Round whole numbers to powers of 10	Round whole numbers to powers of 10 and significant figures		Review rounding (Assumed knowledge)	Review rounding and estimation (Assumed knowledge)	
	• Round decimal numbers up to 3 decimal places or the nearest whole number	• Round decimal numbers up to 4 decimal places, significant figures, or the nearest whole number • Estimating whole number calculations using one figure approximations	• Rounding decimal numbers to decimal places, significant figures, or the nearest whole number			
Time	• Time lines • Units of time • The calendar year (including leap years) • Time calculations • 24-hour time • Timetables		• Units of time, including larger units (decade, century, millennium) • Time calculations • 24-hour time • Time zones			
Financial mathematics		• Discount	• Discount • Profit and loss (including as percentage) • VAT and GST	• Discount • Profit and loss • VAT and GST • Percentage mark-up • Appreciation and depreciation	• Depreciation (as a geometric sequence)	• Depreciation (as a geometric sequence)
				Simple interest: • Simple interest formula • Calculate monthly repayments		
				Compound interest: • Using a table • Compound interest formula	Compound interest: • As a geometric sequence • Formula rearrangement	Compound interest: • As a geometric sequence • Formula rearrangement
Ratio, rates, and proportion		Two-part ratios, whole numbers only: • Equal ratios • Lowest terms • Problem solving • Using ratios to divide quantities • Proportions	Two and three-part ratios, including fractions and decimals: • Lowest terms • Equal ratios • Proportions • Problem solving • Using ratios to divide quantities			
	Scale diagrams		Scale diagrams using ratios			

Topic	MYP 1	MYP 2	MYP 3	MYP 4	MYP 5 (Standard)	MYP 5 (Extended)
	• Line graphs • Travel graphs • Conversion graphs	• Calculating rates • Comparing prices using unit cost	• Calculating rates • Speed (instantaneous and average) • Density • Converting rates • Line graphs			
				• Direct and inverse proportion • Powers in direct and inverse proportion		
Number sequences	• Number sequences • Completing the sequence • Find the rule given a sequence				• Number sequences • Recurrence relations • Arithmetic and geometric sequences • Sequences in finance	• Number sequences • Recurrence relations • Arithmetic and geometric sequences • Sequences in finance • Sums of arithmetic and geometric series
Logarithms						• Evaluating logarithms • Laws of logarithms • Solving exponential equations using logarithms • Logs in different bases
Algebra						
Algebraic expressions		• Building expressions • Product and exponent notation • Reading and writing expressions in words • Key words: term, constant, coefficient, like terms • Collecting like terms • Algebraic substitution, including negative substitutions	• Product and exponent notation • Key words: variable, expression, equation, term, like terms, constant, coefficient • Collecting like terms • Reading and writing expressions in words • Generalising arithmetic • Algebraic substitution	• Review product and exponent notation • Key words • Algebraic substitution • Collecting like terms • Reading and writing expressions in words	Review (Assumed knowledge): • Product and exponent notation • Reading and writing expressions in words • Algebraic substitution • Key words • Collecting like terms • Simple algebraic products	
			• Simplifying algebraic products and quotients (before exponent laws) • Simplifying algebraic fractions, including products and quotients of fractions • Algebraic common factors	• Algebraic products, including sums and differences of products • Algebraic fractions: o evaluating algebraic fractions o simplifying algebraic fractions o multiplying and diving algebraic fractions o adding and subtracting algebraic fractions • Algebraic common factors	• Algebraic products (largely covered in exponent laws) • Algebraic fractions: ○ evaluating algebraic fractions ○ simplifying algebraic fractions ○ multiplying and diving algebraic fractions ○ adding and subtracting algebraic fractions	• Algebraic products (in exponent laws) • Algebraic fractions: ○ evaluating algebraic fractions ○ simplifying algebraic fractions ○ multiplying and diving algebraic fractions ○ adding and subtracting algebraic fractions
Expansion			• Distributive law	• Distributive law • $(a+b)(c+d)$ • Difference between two squares • Perfect squares • Further expansion	• Distributive law • $(a+b)(c+d)$ • Difference between two squares • Perfect squares • Further expansion • Binomial expansion	• Distributive law • $(a+b)(c+d)$ • Difference between two squares • Perfect squares • Further expansion • Binomial expansion

Topic	MYP 1	MYP 2	MYP 3	MYP 4	MYP 5 (Standard)	MYP 5 (Extended)
Factorisation			• Factorising with common factors	• Factorising with common factors • Difference between two squares • Perfect squares • Expressions with four terms • Sum and product • Splitting the middle term ($a \neq 1$)	• Factorising with common factors • Difference between two squares • Perfect squares • Expressions with four terms • Sum and product • Splitting the middle term ($a \neq 1$)	• Factorising with common factors • Difference between two squares • Perfect squares • Expressions with four terms • Sum and product • Splitting the middle term ($a \neq 1$)
Formulae		• Substituting into formulae • Finding formulae	• Rules connecting input and output • Substituting into formulae • Using geometric patterns to find formulae • Practical problems	• Formula construction • Substituting into formulae • Rearranging formulae	• Formula construction • Substituting into formulae • Rearranging formulae (including powers, roots, and variable occurring more than once) • Predicting formulae	• Formula construction • Substituting into formulae • Rearranging formulae (Including powers, roots, and variable occurring more than once • Predicting formulae

Linear equations		• Equations
		• Solve by inspection
		• Use at most 2 inverse operations
		• Repeated unknown on LHS
		• Problem solving
			• Solve by inspection
			• Use at most 3 inverse operations, including negative coefficient of x
			• Unknown appears on both sides
			• Problem solving
			  o solution by search
			  o solution by working backwards
			  o lateral thinking
				• Inverse operations
				• Rational equations, including where a denominator contains an unknown
				• Problem solving, including using a table and mixture problems
					• Inverse operations, repeated unknowns, rational equations
					• Problem solving
					• Equations involving algebraic fractions
						• Review of linear equations (Assumed knowledge)
						• Equations involving algebraic fractions

Quadratic equations			• Solving $x^n = k$ for $n = 2$ and $n = 3$	• Solving $x^n = k$ for $n = 2$ and $n = 3$
				• Null factor law
				• Solve by factorisation:
				  o common factor
				  o difference between two squares
				  o perfect square
				  o sum and product
				• Completing the square
					• Solving $x^n = k$ for $n \geq 2$
					• Null factor law
					• Solve by factorisation:
					  o common factor
					  o difference between two squares
					  o perfect square
					  o sum and product
					  o splitting the middle term
					• Completing the square, including $a \neq 1$
					• Quadratic formula
					• Problem solving
						• Solving $x^n = k$ for $n \geq 2$
						• Null factor law
						• Solve by factorisation:
						  o common factor
						  o difference between two squares
						  o perfect square
						  o sum and product
						  o splitting the middle term
						• Completing the square, including $a \neq 1$
						• Quadratic formula
						• Using the discriminant to find number of real solutions
						• Problem solving
						• Consider complex solutions when $\Delta < 0$
						• The sum and product of the roots

Exponential equations					Solve exponential equations by equating exponents or technology	Solving exponential equations by equating exponents, technology, or by logarithms

Topic	MYP 1	MYP 2	MYP 3	MYP 4	MYP 5 (Standard)	MYP 5 (Extended)
Simultaneous equations				• Trial and error • Graphical solution • Equating values of y • Substitution (integer coefficients) • Elimination • Problem solving	• Graphical solution, including using technology • Substitution, including non-integer coefficients • Elimination • Problem solving • Non-linear simultaneous equations	• Graphical solution, including using technology • Substitution, including non-integer coefficients • Elimination • Problem solving • Non-linear simultaneous equations
Thinking with models						
Linear functions		• Plotting points which lie in a straight line • Graphing linear functions using a table of values	• Graphing linear functions using a table of values or technology • Axes intercepts • Graphing functions using gradient and y-intercept • Vertical and horizontal lines • Finding the equation of a line given y-intercept and another point (find gradient)	• Graphing linear functions using gradient and y-intercept • Axes intercepts • Using axes intercepts to graph lines in general form • Vertical and horizontal lines • Finding the equation of a line using gradient and point, or 2 points	• Finding the equation of a line using gradient and point, or 2 points • Graph linear functions • Find perpendicular bisectors	• Find the equation of a line using gradient and point, or 2 points • Graph linear functions • Find perpendicular bisectors
		• Equation of a line	• Equation of a line	• Equation of a line o Gradient-intercept form o General form • Points on lines	• Equation of a line o Gradient-intercept o General form	• Equation of a line o Gradient-intercept o General form
Quadratic functions				• Finding y given x and vice versa • Graph from table of values • Transformations • Find axes intercepts • Sketch graphs using axes intercepts (factorised form) or completing the square (unfactorised form)	• Finding y given x and vice versa • Graph from table of values • Transformations (including completing the square) • Find axes intercepts • Graph from the axes intercepts • Axis of symmetry and vertex • Finding a quadratic function	• Finding y given x and vice versa • Graph from table of values • Transformations (including completing the square) • Find axes intercepts • Completing the square • Graph from the axes intercepts • Axis of symmetry and vertex • Finding a quadratic function
				• Find maximum and minimum values of quadratics using technology • Projectile motion	• Quadratic optimisation	• Quadratic optimisation
Exponential functions					• Exponential functions • Graphing exponential functions by plotting points or using transformations • Growth and decay	• Exponential functions • Graphing exponential functions by plotting points or using transformations • Growth and decay
Trigonometric functions						Trigonometric functions (sine and cosine), and transformations

Topic	MYP 1	MYP 2	MYP 3	MYP 4	MYP 5 (Standard)	MYP 5 (Extended)
Functions					• Relations and functions • Function notation • Domain and range • Sign diagrams • Transformation of graphs	• Relations and functions • Function notation • Domain and range • Sign diagrams • Transformation of graphs • Absolute value functions • Composite functions (online) • Inverse functions (online)
Inequalities				• Linear inequalities: o Illustrate on a number line o Rules for solving linear inequalities	• Linear inequalities: o Illustrate on a number line o Rules for solving linear inequalities o Solving double inequalities o Problem solving	• Linear inequalities: o Illustrate on a number line o Rules for solving linear inequalities o Solving double inequalities o Problem solving • Regions in the plane • Linear programming • Quadratic inequalities: o Solve using sign diagrams o Interval notation
Networks				• Network diagrams • Routes on networks • Shortest route problems (including Dijkstra's algorithm) • Eulerian and semi-Eulerian networks (Online)		
Calculus					• Limits • Derivative function as a gradient function • Differentiation from first principles • Rules for differentiation (integer exponents only) • Stationary points • Finding the equation of a tangent • Areas under curves • Integration • Rules for Integration (integer exponents only) • Definite integrals • Riemann integral (Online)	• Limits • Derivative function as a gradient function • Differentiation from first principles • Rules for differentiation (including rational exponents) • Stationary points • Finding the equation of a tangent • Areas under curves • Integration • Rules for Integration (including rational exponents) • Definite integrals • Riemann integral (Online)

Topic	MYP 1	MYP 2	MYP 3	MYP 4	MYP 5 (Standard)	MYP 5 (Extended)
Spatial reasoning						
Geometry						
Lines and angles	• Define line, line segment, ray • Parallel and intersecting lines • Naming lines	• Parallel and intersecting lines • Naming lines • Perpendicular lines • Collinear points • Concurrent lines	• Parallel and perpendicular lines			
	• Angles • Degrees • Classifying angles by size • Protractor use • Naming angles (three point notation) • Angles at a point, on a line, or in a right angle • Vertically opposite angles	• Classifying angles by size • Protractor use • Naming angles • Angles at a point, on a line, or in a right angle • Vertically opposite angles • Corresponding, alternate, co-interior angles	• Classifying angles by size • Angles at a point, on a line, or in a right angle • Vertically opposite angles • Corresponding, alternate, co-interior angles • Complementary and supplementary angles			
Geometric construction		• Bisecting an angle • Constructing right angles • Perpendicular bisectors				
Polygons and circles	• Define polygon, regular polygon. • Name polygons by sides and vertices. • Classify triangles by side length. • Quadrilaterals: o Parallelogram o Rectangle o Square o Rhombus o Kite o Trapezium	• Define regular polygon, convex polygon. • Classify triangles by side length and by angle • Angle sum of a triangle • Exterior angles of a triangle • Properties of isosceles triangles • Isosceles triangle theorem • Properties of special quadrilaterals • Angle sum of a quadrilateral	• Classifying triangles by side length and by angles. • Angle sum and exterior angle of a triangle. • Isosceles triangle theorem and converses. • Properties of special quadrilaterals. • Angle sum of a quadrilateral. • Angles sum of an n-sided polygon			
	Define circle and radius		Define: • Chord • Diameter • Radius • Semi-circle • Arc • Segment • Sector • Tangent			
Solids	• Define: o Prism o Cube o Pyramid o Cylinder o Cone o Sphere • Nets of solids • Drawing solids	• Solids • Nets of solids • Drawing solids • Oblique and isometric projections				
Measurement	• Units • Reading scales					

Topic	MYP 1	MYP 2	MYP 3	MYP 4	MYP 5 (Standard)	MYP 5 (Extended)
Length and perimeter	• Length units: mm, cm, m, km • Converting between units	• Length units: mm, cm, m, km • Converting between units • Word problems involving conversion	• Length units • Converting between units • Word problems involving conversion	• Length units • Converting between units • Word problems involving conversion	• Converting between units	• Converting between units
	• Define perimeter • Perimeter of figures	• Perimeter of figures	• Perimeter of figures • Constructing perimeter formulae • Circumference	• Perimeter • Circumference • Arc length • Constructing perimeter formulae (including circular arcs) • Find unknown lengths given perimeter	• Perimeter • Circumference • Arc length	• Perimeter • Circumference • Arc length
Area	• Metric area units	• Metric area units, including hectare	• Metric area units • Converting between units	• Metric area units • Converting between units	• Metric area units • Converting between units	• Metric area units • Converting between units
	Area of: • Rectangle • Triangle	Area of: • Rectangle • Triangle • Parallelogram • Trapezium	Area of: • Rectangle • Triangle • Parallelogram • Trapezium • Kite • Circle • Composite figures	Area of: • Rectangle • Triangle • Parallelogram • Trapezium • Kite • Circle • Sector • Composite figures	Area of: • Rectangle • Triangle • Parallelogram • Trapezium • Kite • Circle • Sector • Composite figures	Area of: • Rectangle • Triangle • Parallelogram • Trapezium • Kite • Circle • Sector • Composite figures
Surface area			Surface area of: • Solids with planar faces • Cylinder • Sphere	Surface area of: • Solids with planar faces • Cylinder • Sphere • Cone	Surface area of: • Solids with planar faces • Cylinder • Sphere • Cone	Surface area of: • Solids with planar faces • Cylinder • Sphere • Cone
Volume	• Metric volume units	• Metric volume units	• Metric volume units • Converting between units	• Converting between units	• Converting between units	• Converting between units
	Volume of: • Rectangular prism	Volume of: • Rectangular prism • Solids of uniform cross-section	Volume of: • Rectangular prism • Solids of uniform cross-section • Cylinder • Tapered solids • Sphere	Volume of: • Solids of uniform cross-section • Tapered solids • Sphere, including finding radius given volume	Volume of: • Solids of uniform cross-section • Tapered solids • Sphere	Volume of: • Solids of uniform cross-section • Tapered solids • Sphere
Capacity	• Capacity units • Conversion between units	• Capacity units • Conversion of units • Connecting volume and capacity	• Capacity units • Conversion of units • Connecting volume and capacity	• Capacity units • Conversion of units • Connecting volume and capacity	• Capacity units • Conversion of units • Connecting volume and capacity	• Connecting volume and capacity
Mass	• Mass units • Conversion between units	• Mass units • Conversion between units • Mass of water				
Pythagoras' theorem			• Pythagoras' theorem • Converse of Pythagoras' theorem • Problem solving	• Pythagoras' theorem • Pythagorean triples • Problem solving, including 3D problems	• Pythagoras' theorem • Converse of Pythagoras' theorem • Pythagorean triples • Problem solving	• Pythagoras' theorem • Converse of Pythagoras' theorem • Pythagorean triples • Problem solving
Deductive geometry				• Deductive proofs • Midpoint theorem		

Topic	MYP 1	MYP 2	MYP 3	MYP 4	MYP 5 (Standard)	MYP 5 (Extended)
Circle geometry				• Angle in semi-circle theorem • Chords of a circle theorem • Radius-tangent theorem • Tangents from external point	• Angle in semi-circle theorem • Chords of a circle theorem • Radius-tangent theorem • Tangents from external point • Angle at centre • Angles subtended by the same arc • Angle between tangent and chord • Cyclic quadrilaterals (online) • Opposite angles of a cyclic quadrilateral (online) • Tests for cyclic quadrilaterals (online)	• Angle in semi-circle theorem • Chords of a circle theorem • Radius-tangent theorem • Tangents from external point • Angle at centre • Angles subtended by the same arc • Angle between tangent and chord • Cyclic quadrilaterals • Opposite angles of a cyclic quadrilateral • Tests for cyclic quadrilateral
Transformations of figures	• Translations • Reflections • Rotations • Combinations of transformations	• Translations • Reflections and line symmetry • Rotations and rotational symmetry • Enlargements and reductions • Combinations of transformations	• Enlargements and reductions (as an introduction to similarity)	• Translations • Reflections • Rotations • Enlargements and reductions • Stretches • Combinations of transformations		
Similarity and congruence			• Similar figures • Similar triangles (x appears once only) • Problem solving	• Similar figures • Similar triangles (x appears more than once) • Problem solving • Areas and volumes of similar figures	• Similar triangles • Problem solving, including using Pythagoras • Areas and volumes of similar figures	• Similar triangles • Problem solving, including using Pythagoras • Areas and volumes of similar figures
			• Congruent figures • Congruent triangles • Proof using congruence	• Congruent figures • Congruent triangles	• Congruent triangles • Proof using congruence	• Congruent triangles • Proof using congruence
Coordinate geometry	• Grid references • Locating points • Positive and negative coordinates • Cardinal directions	• Number grids • Positive and negative coordinates • Plotting points from a table of values • Graphing lines by creating a table of values	• Review plotting points			
			• Gradient	• Gradient • Gradient formula • Parallel and perpendicular lines	• Gradient • Gradient formula • Parallel and perpendicular lines • Collinear points	• Gradient • Gradient formula • Parallel and perpendicular lines • Collinear points
				• Distance between two points • Using distance to classify triangles	• Distance between two points • Using distance to classify triangles • Find coordinates given distance	• Distance between two points • Using distance to classify triangles • Find coordinates given distance
				Midpoints	Midpoints	Midpoints
				Proof using coordinate geometry	Proof using coordinate geometry	Proof using coordinate geometry

Topic	MYP 1	MYP 2	MYP 3	MYP 4	MYP 5 (Standard)	MYP 5 (Extended)
					3D coordinate geometry - distance, midpoint	3D coordinate geometry - distance, midpoint
Vectors						• Vector notation • Negative vectors • Zero vector • Geometric form • Component form • Equality, addition, subtraction, and scalar multiplication with vectors (geometrically and in component form) • Magnitude of a vector • Parallelism • Scalar products • Angle between two vectors
Trigonometry						
Trigonometry				• Using scale diagrams • Trigonometric ratios • Finding sides and angles • Problem solving	• Trigonometric ratios • Finding sides and angles • Problem solving (including 3D solids)	• Trigonometric ratios • Finding sides and angles • Problem solving (including 3D solids)
				True bearings (single trip questions)	True bearings (single and double trip questions)	True bearings (single and double trip questions)
Non-right angled trigonometry				• The unit circle • Trigonometric ratios for obtuse angles • Supplementary angles (Online)	• The unit circle • Trigonometric ratios for obtuse angles • Supplementary angles	• The unit circle • Trigonometric ratios for obtuse angles • Supplementary angles
				• Area of a triangle • Sine rule (use diagram to determine ambiguous case) • Cosine rule • Problem solving with sine and cosine rules (not bearings) (Online)	• Area of a triangle • Sine rule, including ambiguous case • Cosine rule • Problem solving with sine and cosine rules, including bearings	• Area of a triangle • Sine rule, including ambiguous case • Cosine rule • Problem solving with sine and cosine rules, including bearings
Advanced trigonometry						• The unit circle • Trigonometric ratios for all angles • Multiples of 30° and 45°
						• Trigonometric functions • Transformations of trigonometric functions
						• Algebra with trigonometric expressions • Pythagorean identity, negative and complementary angle identities, double angle identities
						• Solving trigonometric equations by graphing or algebraically (using unit circle)

Topic	MYP 1	MYP 2	MYP 3	MYP 4	MYP 5 (Standard)	MYP 5 (Extended)
Reasoning with data						
Data collection		• Census and sample	• Census and sample • Bias and sample size in sampling	• Review types of data		
Categorical data	• Organise into tally and frequency table • Find the mode • Display using dot plot, column graph, pie chart, pictogram	• Organise into tally and frequency table • Find the mode • Display using dot plot, vertical or horizontal bar chart, pie chart	• Organise into tally and frequency table • Find the mode • Display using column graph, horizontal bar chart, or pie chart			
Numerical data	• Organise into tally and frequency table • Find the mode • Display using dot plot or column graph	• Organise into tally and frequency table • Display using dot plot, column graph, or stem-and-leaf plot • Outliers	• Organise into tally and frequency table • Display using dot plot, column graph, or stem-and-leaf plot • Outliers • Organise grouped data into tally and frequency table using class intervals, find the modal class • Display grouped data using column graph or stem plot	• Display using dot plot, column graph, stem-and-leaf plot • Describe the distribution of data • Outliers • Display continuous data using a frequency histogram • Box plots • Cumulative frequency graphs	• Display using dot plot, column graph • Describe the distribution of data • Outliers • Display continuous data using a frequency histogram • Box plots • Cumulative frequency graphs • Percentiles	• Display using dot plot, column graph • Describe distribution of data • Outliers • Display continuous data using a frequency histogram • Box plots • Cumulative frequency graphs • Percentiles
Measures of centre	• Mean	• Mean • Mode • Median	• Mean • Mode • Median • From a frequency table	• Mean • Median • Mode • Estimating the mean of grouped data	• Mean • Median • Mode • Estimating the mean of grouped data	• Mean • Median • Mode • Estimating the mean of grouped data
Measures of spread		• Range	• Range • From a table	• Range • Interquartile range	• Range • Interquartile range	• Range • Interquartile range • Standard deviation • Normal distribution
Comparing data		• Comparing categorical data with a side-by-side column graph		• Comparing measures of centre and spread • Comparing numerical data with side-by-side column graphs, back-to-back bar charts, back-to-back histograms, back-to-back stem-and-leaf plots • Parallel box plots	• Parallel box plots	• Parallel box plots
Bivariate statistics					• Scatter graphs, correlation • Finding Pearson's correlation coefficient • Line of best fit by eye • Interpolation and extrapolation • Linear regression	• Scatter graphs, correlation • Finding Pearson's correlation coefficient • Line of best fit by eye • Interpolations and extrapolation • Linear regression
Describing probability	• Using words to describe probability • Probabilities on a number line	• Using words to describe a probability • Probabilities on a number line	• Probabilities on a number line			

Topic	MYP 1	MYP 2	MYP 3	MYP 4	MYP 5 (Standard)	MYP 5 (Extended)
Sample space	• List possible outcomes for single stage events	• Sample space • List sample space for multi-stage events	• Lists • Grids	• Lists • Grids • Tree diagrams	• Lists • Grids • Tree diagrams	• Lists • Grids • Tree diagrams
Theoretical probability	• Single-stage probabilities	• Single-stage probabilities • Multi-stage probabilities by listing outcomes • Complementary events	• Single-stage probabilities • Using grids • Complementary events • Independent events • Using Venn diagrams	• Single-stage probabilities • Using grids • Complementary events • Independent and dependent events • Using tree diagrams • Using Venn diagrams	• Using grids • Using Venn diagrams • Independent and dependent events • Tree diagrams • Conditional probabilities	• Using grids • Using Venn diagrams • Independent and dependent events • Tree diagrams • Conditional probabilities
Experimental probability		• Experimental probability • Accuracy of experimental probabilities	• Experimental probability • Accuracy of experimental probabilities • Probabilities from tabled data, including two-way tables	• Experimental probability • Probabilities from tabled data, including two-way tables	• Experimental probability • Probabilities from tabled data, including two-way tables	• Experimental probability • Probabilities from tabled data, including two-way tables
Expectation			Expectation (probabilities given, or require simple calculation e.g. dice)	Expectation (more complicated calculation of probabilities)	Expectation	Expectation
Laws of probability					• Mutually exclusive events • Addition law of probability	• Mutually exclusive events • Addition law of probability
Counting and probability						• Sum and product principles • Factorial notation, permutations, combinations • Probabilities using permutations and combinations (Online)