Syllabus for XPERTSTEM



XPERT-STEM

	Chapter 1	Chapter 2	Chapter 3
Mathematics	Place Value (up to 6-digit	Fractions (equivalent,	Lines, Angles, and Symmetry
Grade 3 & 4	numbers)	comparing, adding &	
(Division 1)		subtracting like denominators	
	Comparing and Ordering	Introduction to Decimals	2D Shapes (triangles,
	Numbers	(tenths & hundredths)	quadrilaterals, circles)
	Addition and Subtraction of	Time (reading clocks,	3D Shapes (cubes, cuboids,
	Large Numbers	elapsed time, calendars)	spheres, cones, prisms)
	Multiplication Facts and Multi-	Money (adding, subtracting,	Perimeter and Area of Simple
	digit Multiplication	simple word problems)	Figures
	Division Facts and Long	Length, Mass, and Capacity	Data Handling (tables,
	Division	(metric units, conversions	pictographs, bar graphs,
		within units)	simple charts

	Chapter 1	Chapter 2	Chapter 3
Mathematics	• Divisibility by 2, 3, 4, 5, 6, 7,	Simple statistics	Area of triangles
Grade 5 & 6	8, 9, 10, 11, and 13		
(Division 2)	Mathematical logic	Percentage	Properties of squares,
(Dividion 2)			rectangles, triangles,
			parallelograms, and
			trapeziums
	Prime numbers	Ratio	Angles (acute, right, and
			obtuse)
	Arithmetic operations with	Linear equations	Volume of cubes and
	decimals, fractions, mixed	2007	cuboids
	fractions, and improper		
	fractions		
1	Factor and multiples	Perimeter of polygons	Line of symmetry
	LCM and GDF		

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Mathematics	Advanced topics in fractions	System of equations	Regular polygons
Grade 7 & 8 (Division 3)	Squares and square roots	Linear functions	Area and circumference of a circle
(Division 3)	Rational numbers	Simple combinatorics and probability	Pythagorean Theorem
	Equalities and inequalities	Ratio and proportion	Congruence and similarity
	Simple algebraic		Volume and surface area of
	expressions		prisms and cylinders

	Chapter 1	Chapter 2	Chapter 3
Mathematics	Real numbers	Polynomials	Law of sines and cosines
Grade 9 & 10 (Division 4)	Advanced topics in exponentiation	Logarithms	Properties of circles
(DIVISION 4)	Quadratic functions	Graph interpretation	Volume and surface area of pyramids, cones, and spheres
		Mean, median, and mode	Coordinate geometry

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	Chapter 1	Chapter 2	Chapter 3
Mathematics	Advanced topics in algebra	Advanced topics in	Summation of series
Grade 11 & 12		logarithms	
(Division 5)	Advanced topics in	Complex numbers	Advanced topics in
(Division 5)	inequalities		combinatorics and probability
	Remainder theorem	Binomial theorem	Advanced topics in
			trigonometry
	Factor theorem	Non-linear equations	Advanced topics in
			coordinate geometry