

St. Mary's Catholic High School - MATH (2018-2019)

YEAR 1 LONG TERM PLAN with CURRICULUM STANDARDS

YEAR 1	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8
Term 1	Yr1/1 & 2 Numerals 1 to 20		Yr1/3	Jr1/4	Jr1/5	Jr1/6	Jr1/7	Jr1/8
	Read and write numerals from 1 - 20. Counting objects upto 20. Missing numbers. Number names upto 10.		Number bonds of 4 and 5	Number bonds of 5 and 6	Number bonds of 10	Doubles to 5	Adding 1, 2 and 3	Reinforcement
			Completing additions using number bonds of 4 and 5	Completing additions using number bonds of 5 and 6	Writing addition bonds to 10.	Identify doubles of numbers upto 5 and begin to add numbers to find the doubles	Write the next two numbers and complete the addition	
Term 1	Jr1/9	Jr1/10	Jr1/11	Jr1/12	Jr1/13	Jr1/14	Jr1/15	
	Adding 1 more/1 less	2D Shapes	Ordering/Comparing numbers	Estimation/Ordinals	Pairs to 5 and 6/ Time	Pairs to 7 and	s using bonds/subtracting	Reinforcement
	Writing numbers one more or one less than any given number	Identify 2D shapes and properties, straight and curved sides, symmetry with 2D shapes and venn diagram	Ordering, Comparing and writing number between	Estimating a number of objects, Identifying the ordinals in the correct order	Make pairs with total of 5 and 6. Reading time to 0'clock and half past.	Complete the addition to make 7 and 10. Subtracting numbers from 5, 6 and 10.	Subtracting numbers from 10. solving problems using number bonds	
YEAR 1	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	
Term 2	Jr1/17	Jr1/18	Jr1/19	Jr1/20	Jr1/21	Jr1/22	Jr1/23	Jr1/24
	comparing length/ Counting on	Recognising/Adding Coins	1 more/1 less/2 more/ 2 less	Adding and subtracting bonds to 10	Bonds to 5,6 and	3D Shapes/Days and	Odd and Even numbers	Reinforcement
	Can use language of position and direction, Comparing length, Complete the addition counting on and back by 1,2 and 3	Identifying coins, Adding up coins to find the total.	Finding out numbers that are one more or one less/two more or two less than any given numbers	Completing the addition and subtraction sentences to find bonds to 10	Complete the addition and subtraction to find bonds to 5, 6 and 7	Recognising 3D shapes and its properties, Sorting of shapes, Write the days of the week in the correct order, Completing the months of the year	Identifying odd and even numbers upto 100.	
Term 2	Jr1/25	Jr1/26	Jr1/27	Jr1/28	Jr1/29	Jr1/30	Jr1/31	
	Counting in 2's, 5's and 10's		Quarter/half of shapes/Half	Doubles to 10/Pairs to 20	O'clock/Half past/Quarter	10 more/10 less/Capacity	Revision	
	Counting on and back in 2's, 5's and 10's		Identifying half and quarter of shapes, Finding out half of numbers	Add to find the doubles. Find the numbers that pairs to 20	Read and write the correct time to o'clock, half past, quarter to and quarter past.	Adding and subtracting 10 to find the correct answer		

YEAR 2 LONG TERM PLAN with CURRICULUM STANDARDS

YEAR 2	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8
Term 1	Y 2/1	Y 2/2	Y 2/3	Y 2/4	Y 2/5	Y 2/6	Y 2/7	Y 2/8
	Estimate and count a number of objects up to 100; locate numbers on 0–100 beaded lines and 1–100 squares; compare pairs of numbers and find a number in between; order three numbers, order 2-digit numbers	Revise number bonds to 6, 7, 8, 9 and 10; know number bonds to 10 and begin to learn related subtraction facts; know multiple of 10 number bonds to 100, learn number bonds to 20, rehearse number bonds to 10 and 20 using stories	Double numbers to double 15, use patterns in number bonds, use number bonds to solve more difficult additions, to subtract and to solve additions bridging 10	Sort 2D shapes according to symmetry properties and right angles using Venn diagrams, recognise squares, rectangles, circles, triangles, ovals and hexagons, sort shapes and objects using a two-way Carroll diagram. Recognise which shapes tessellate.	Begin to mark numbers on a number line, compare and order numbers, using signs, work systematically to find all possible inequalities, find 1 and 10 more or less using the 100-square	Know and use ordinal numbers; understand that 2-digit numbers are made from some 10s and some 1s; Understand place value using 10p and 1p coins; find and record all possible amounts using 10p and 1p coins;	Add and subtract 10, 20 and 30 to any 2-digit number; Add and subtract 11, 21, 12 and 22 to any 2-digit number; Solve addition and subtractions by counting on and back in 10s then in 1s; solve addition and subtraction problems	Understand and use terms and vocabulary associated with position, direction and movement; Measure lengths using uniform units; Begin to measure in centimetres and metres
Term 1	Y 2/9	Y 2/10	Y 2/11	Y 2/12	Y 2/13	Y 2/14	Y 2/15	Revision and Assessment First Term Exam
	Add and subtract 2-digit numbers; Solve addition and subtraction problems using concrete and pictorial representations; Add near doubles to double 15; Add several small numbers spotting near doubles or pairs to 10, etc.	Count in 2s, 5s and 10s from zero; Count in multiples of 2p, 5p and 10p; Number sequences of 2s, 5s and 10s; Find the totals of coins and ways to make an amount; Use coins to make given amounts of money	Place value and ordering 2-digit numbers; place value additions and subtractions; add and begin to subtract 9, 10 and 11	Revise number bonds to 10; begin to bridge 10; subtract from 10 and 20; use number facts to find the complement to ten; find a difference between two numbers by counting on	Rehearse complements to multiples of 10; find differences using a number line; find change from 10p and 20p, and from £10 to £20 by counting up and using bonds to 10 and 20; add two 2-digit numbers by counting on	Recognise and identify properties of 3D shapes; sort according to properties including number of faces; name the 2D shapes of faces of 3D shapes; tell the time to the nearest quarter on analogue and digital clocks	Order 2-digit numbers and revise the < and > signs; locate 2-digit numbers on a landmarked line and grid; round 2-digit numbers to nearest 10; estimate a quantity <100 within a range	
YEAR 2	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8
Term 2	Y 2/16	Y 2/17	Y 2/18	Y 2/19	Y 2/20	Y 2/21	Y 2/22	Y 2/23
	Revise doubles and corresponding halves to 15; find half of numbers to 30; Recognise $\frac{1}{2}$, $\frac{1}{4}$, $\frac{1}{3}$ and $\frac{2}{3}$ of shapes; place $\frac{1}{2}$ on a number line; count in $\frac{1}{2}$ and $\frac{1}{4}$; understand and write mixed numbers	Count in 2s, 5s and 10s to solve multiplication problems; introduce the \times sign; record the 2, 5 and 10 times-tables; write multiplications to go with arrays, rotate arrays to show they are commutative	Tell the time to the nearest quarter of an hour using analogue and digital clocks; understand the relationship between seconds, minutes and hours and use a tally chart; interpret and complete a pictogram or block graph where one block or symbol represents one or two things	Revise 2, 5 and 10 times-tables; revise arrays; multiply by 2, 3, 4, 5 and 10; arrange objects into arrays and write the corresponding multiplications; write divisions as multiplications with holes in and use the \div sign	Recognise all coins, know their value, and use them to make amounts; recognise £5, £10, £20 notes; make amounts using coins; write amounts using £.p notation; add two amounts of pences; add two amounts of money, beginning to cross into £s	Locate, order and compare 2-digit numbers on 0-100 number lines and on the 1-100 square; use signs; introduce numbers 101 to 200 and count in 100s to 1000; add 2-digit numbers by counting on in 10s and 1s; subtract 2-digit numbers by counting back in 10s and 1s	Use doubles and number bonds to add three 1-digit numbers; find complements to multiples of 10; understand subtraction as difference and find this by counting up; find small differences either side of a multiple of 10	Add and subtract 1-digit numbers to and from 2-digit numbers; add 2-digit numbers using 10p and 1p coins (partitioning, answers less than 100); add 2-digit numbers using place-value cards (partitioning, answers more than 100)
Term 2	Y 2/24	Y 2/25	Y 2/26	Y 2/27	Y 2/28	Y 2/29	Y 2/30	
	Measure weight and capacity using standard or uniform non-standard units; draw a block	Double multiples of 10 and 5 (answers less than 100); double 2-digit numbers	Begin to understand that addition undoes subtraction and vice versa; add three or	Count in 3s; recognise numbers in 3 times-table; understand that multiplication is commutative	Measure and estimate lengths in centimetres; tell the time involving	Partition to add two 2-digit numbers; find the difference between two 2-	Compare two 2-digit numbers and find bonds to 100 using	

Term 2	graph where one square represents two units; weigh items using 100g weights using scales marked in multiples of 1kg or 100g; measure capacity in litres and in multiples of 100ml	ending in 1, 2, 3 or 4 (answers less than 100); find a quarter of numbers up to 40 by halving twice; begin to find 3/4 of numbers; find 1/2 1/4 and 1/3 of amounts (sharing)	more small numbers using number facts; record amounts of money using £:p notation including amounts with no 10s or 1s; find more than one way to solve a money problem	and division and multiplication are inverse operations; solve divisions as multiplications with a missing number; count in 2s, 3s, 5s and 10s to solve divisions and solve division problems	multiples of 5 minutes past the hour and 5 minutes to the hour; tell time to 5 minutes; begin to say the time 10 minutes later	digit numbers; Addition and subtraction of 2-digit numbers using borrowing; multiply two numbers using counting in steps of 2, 3, 5 and 10; solve division problems by counting in steps of 2, 3, 5 and 10	thermometers; revise place value in 2-digit numbers, numbers between 100 and 200, and 3-digit numbers (including zeros in the 10s and 1s places)	Revision and Assessment Final Exam
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YEAR 3 LONG TERM PLAN with CURRICULUM STANDARDS

YEAR 3	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8
Term 1	Y3M1	Y3M2	G3M3	G3M4	G3M5	G3M6	G3M7	G3M8
	Number and Place value/ Partitioning of 3- digit numbers	Mental addition and subtraction	Mental addition and subtraction/Handling Data	Mental multiplication and division(Times tables of 3 and 4)/Long division	Doubles to double 50 and halves of even numbers to 40; halves	Calender/Time		Round to the nearest 10/Placing numbers on a number line
	Read and write numbers up to 1000 in numerals and in words. Recognise place and place value of 3-digit numbers, comparing and ordering numbers, partitioning of 3-digit numbers.	Multiples of 5 and 10 bonds to 100. Addition using bonds to 10, 20 and doubles, inverse operation.	Adding or subtracting multiples, near multiples of 10 to or from 2-digit numbers. Interpret and present data using bar charts and frequency table.	Multiplying and dividing by 3, 4, 5 and 10. Understand that division is the inverse of multiplication.	Doubling numbers to 50 and halving even numbers to 40. Recall doubles of numbers 1 to 20, derive the related halves and apply reasoning skills to choose numbers that will give the longest halving chains	Know the number of days in each month, year and leap year Telling time to quarter hour on analogue, digital clocks including using Roman numerals from I to XII. Telling the time to five minute intervals on analogue and digital clocks.		Round to the nearest 10. Finding numbers on a number line and rounding to the nearest 10. Finding and placing 3- digit numbers on a number line.
Term 1	G3M9	G3M10	G3M11	G3M12		G3M13	G3M14	
	3-D shapes	Fractions of shapes and amounts (unit and non-unit fraction)/ long	Addition and subtraction (written method)	Money		Measuring length	Mental multiplication/Division with remainders	Revision
	Recognise 3D shapes in different orientations and describe them.	Recognizing fractions as equal parts of a whole Compare unit fractions. Recognize, find and write fractions of a discrete set of objects: unit fractions and non-unit fractions with small denominators, e.g. 1/2 , 1/3, 1/4 , 1/5 of multiples of 2, 3,4 and 5 using visual representations. Introduce long division.	Begin to add and subtract numbers with up to 3 digits. Using formal written methods of columnar addition (carry forward). Using formal written methods of columnar subtraction (borrowing)	Making pounds and pence amounts. Adding amounts of money. Solve number and practical problems using place value to add and subtract amounts of money.		Measure to the nearest centimetre; millimetre. Converting between metres, centimetres and millimetres.	Understand that a remainder is the amount left over after a division and begin to understand the patterns of remainders.	
YEAR 3	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8
Term 2	G3M15	G3M16	G3M17	G3M18	G3M19	G3M20	G3M21	G3M22
	Multiplying and dividing by 10/Sorting multiples using Venn diagram	Fractions		Recognising angles/ 2-D shapes	Angles and turns/ Perimeter	Subtracting money from £2, £5, £10		Time and Time intervals
	Multiplying and dividing by 100. Round 3-digit numbers to the nearest 100 .Sort multiples of 2, 3, 4, 5 and 10 using Venn	Identifying fractions of an array and adding to a fraction to make a whole 1. Add and subtract fractions with the same denominator within one	Use a right angle tester to identify right angles, angles that are greater than or less than a	Recognise the relationship between angles and turns. Begin to measure the	Add and subtract amounts of money to give change, using both £ and p in practical		Record and compare time in terms of seconds, minutes and hours.	

Te	diagram.	whole. Mark and identify simple fractions on 0 to 1 lines. Finding fractions of amounts.	right angle. Identify and draw 2D shapes, and describe their properties, different types of triangles; quadrilaterals; regular and irregular polygons.	perimeter of simple 2D shapes and rectilinear shapes. .	contexts. Find change from £10, £5, £2.	Calculate time intervals and compare durations of events.		
Term 2	G3M23	G3M24	G3M25	G3M26	G3M27	G3M28	G3M29	
	Multiplying multiples of 10/Vertical multiplication / Estimation	Doubling and halving	Multiplying and dividing by 2,3, 4,5 and 10 (problem solving)	Handling data		Parallel, perpendicular/Vertical and horizontal lines	Problem solving	Revision
	Multiply multiples of 10 by one digit number. Write and calculate mathematical statements for multiplication using multiplication tables, including 2-digit numbers. Using mental and progressing to formal written methods to multiply 2-digit numbers by 3, 4, 5, and 8.	Relate doubles and halves to multiplying and dividing by 2.	Begin to make generalisations and solve problems, including missing number problems and word problems, involving 2-digit by 1-digit multiplication or division.	Interpret and present data using frequency tables; tally chart; barchart, pictograms, Venn diagram. Solve 1-step and 2-step questions (for example, 'How many more?' and 'How many fewer?') using information presented in scaled bar charts, pictograms and tables.		Identify horizontal and vertical lines and pairs of perpendicular and parallel lines.	Choose an appropriate strategy (mental or written) to solve problems involving different operations (addition, subtraction, multiplication, division, fractions, doubles and halves, pound and pence and measures.	

YEAR 4 LONG TERM PLAN with CURRICULUM STANDARDS

YEAR 4	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8
Term 1	Numbers	Numbers	Numbers	Numbers	Numbers	Numbers	Fractions	Fractions
	Addition and subtraction	Number and place value	Rounding numbers	Written addition and subtraction	multiplication and division	multiplication and division	Fractions, ratio and	Fractions
	Finding pairs with a total of 100	Read, write 4-digit numbers and know what each digit represents;	Place 4-digit numbers on landmarked lines; 0–10 000 and 1000–2000; round 4-digit numbers to the nearest 10, 100 and 1000; subtract 3-digit numbers using the expanded written version and the counting up mental strategy	Add two 3-digit numbers using column addition; subtract a 3-digit number from a 3-digit number using an expanded column method	Learn \times and \div facts for the 6 and 9 times-table and identify patterns; multiply multiples of 10 by single-digit numbers; multiply 2-digit numbers by single-digit numbers (the grid method); find fractions of amounts	Double 3-digit numbers and halve even 3-digit numbers; revise unit fractions	identify equivalent fractions; reduce a fraction to its simplest form; count in fractions (each fraction in its simplest form)	Use mental multiplication and division strategies; find non-unit fractions of 2-digit and 3-digit numbers; find equivalent fractions and use them to simplify fractions (halves, thirds, quarters), learn the 7 \times table.
Statistics	Decimals and percentages	Decimals and percentages	Measurement	Measurement	Measurement	Numbers		
Handling data	Decimals	Decimals	Length	Mass and capacity	Money	Addition and subtraction		
	Draw and interpret bar charts and pictograms;			Measure in metres, centimetres and millimetres; convert lengths between units; record using decimal notation Solve simple measure problems	Convert multiples of 100 g into kilograms; convert multiples of 100 ml into litres; read scales to the nearest		Mentally add and subtract to/from 4-digit and 3-digit numbers using place-value; count on and back in multiples	

Term 1		Compare numbers with up to 2 decimal places, identify the value of the digits as ones, tenths and hundredths, and round decimal numbers to the nearest whole.	Recognise that tenths and hundredths arise when dividing by 10 and 100; multiply decimal numbers by 10 and 100, Count up and down in tenths and hundredths.		100 ml; estimate capacities;	Add amounts of money using written methods and mentally using place value and number facts; choose to add and subtract using the appropriate strategy: mental or written;	of 10, 100 and 1000; count on in multiples of 25 and 50; add and subtract multiples of 10 and 100 to/from 4-digit numbers	
	YEAR 4	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7
Term 2	Numbers	Numbers	Numbers	Geometry	Geometry	Geometry	Measurement	Measurement
	Written multiplication and	Written multiplication and	Multiplication and division	Angles and lines	Lines and Symmetry	2D and 3D shapes	Perimeter	Area
	Use the grid method to multiply 3-digit by single-digit numbers and introduce the vertical algorithm; begin to estimate products; divide numbers (up to 2 digits) by single-digit numbers with no remainder, then with a remainder	Divide 2-digit and 3-digit numbers by 1-digit numbers using place value and mental strategies; identify factor pairs and use these to solve multiplications and divisions with larger numbers	Learn 11 and 12x tables; use a vertical written method to multiply 3-digit numbers by 1-digit numbers; use a written method to multiply 3-digit numbers, multiply 2-digit and 3-digit numbers by 1-digit numbers	Recognise and compare acute, right and obtuse angles;	Identify perpendicular and parallel lines, recognise and draw line symmetry in shapes; ; draw the other half of symmetrical shapes	Sort 2D shapes according to their properties; draw shapes with given properties and explain reasoning.	Measure and calculate the perimeter of a rectilinear figure (including squares) in centimetres and metres.	Find the area of rectilinear shapes.
Term 2	Number and place value	Number and place value (NPV)	Geometry	Statistics	Numbers	Measurement	Numbers	
	Negative numbers	Roman Numerals	Coordinates	Handling data	Percentages	Time	Addition and subtraction	
	Read, write and compare 5-digit numbers; read, use and compare negative numbers in the context of temperature	Recognise and read Roman numerals to 100; begin to know the history of our number system including 0;	Use coordinates to draw polygons; find the coordinates of shapes after translation; Describe movements between positions as translations of a unit left/right and up/down	Draw line graphs and understand that intermediate points have meaning	Understand percentages, equivalence between percentages and fractions and finding percentages of amounts.	Tell the time on a 24 hour clock, using am and pm correctly; convert pm times to 24 hour clock and vice versa; use 24 hour clock in calculating intervals of time;	Solve written addition of two 4-digit numbers; add amounts of money (pounds and pence) using column addition; solve 4-digit minus 4-digit and 4-digit minus 3-digit subtractions using	

YEAR 5 LONG TERM PLAN with CURRICULUM STANDARDS

YEAR 5	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8
Term 1	GR5/1		GR5/2	GR5/3		GR5/4	GR5/5	
	Number Skills(1)		Geometry(1)	Number Skills(2)		Geometry (2)	Number Skills(3)	
	Place Value of 6-digit numbers, Compare, order & rounding 5-digit numbers, Add and Subtract 4-digit numbers with multiples of 10 & counting method		Measure & Draw angles in degrees of acute, obtuse and reflex. Angle in a line and around a point.	Multiply 4 digit*2 digit and Divide 4 digit/2 digit, Dividing by 2, 3, 4, 5, 9 and 10.		Draw Circles, Identify radius and circumference, Relate angles to turns	Comparing & finding equivalent fractions, Proper, Improper and mixed fractions and conversions	
Term 1	GR5/6	GR5/7			GR5/8		GR5	
	Geometry(3)	Number Skills(4)			Geometry(4)		WEEK 15 & WEEK 16	
	12-hour clock times and 24-hour clock times, Calculate time past & time intervals	3-digit Decimals, Place Value, Rounding and Ordering decimals, Addition and Subtraction of decimals, multiplying and dividing by multiples of 10.			Units of length, mass, capacity, Identifying 2D & 3D shapes, Area and perimeter, Volume and Capacity.		REVISION	

YEAR 5	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8
Term 2	GR5/9		Gr5/10	Gr5/11	Gr5/12		GR5/13	GR5/14
	Number Skills(5)		Geometry(5)	Number Skills(6)	Number Skills(6)cont.		Number Skills(7)	Number Skills(7)cont.
	Prime numbers,multiplies and factors,Square and cube numbers		Properties of Triangles and polygons, metric and Imperial units	Percentages.Converting to decimals,fraction.	Adding and Subtracting fractions,multiplying proper fractions by whole numbers, comparing fractions.		Ratio and Proportions(not in text book), Dividing the ratios.	Probability
Term 2	GR5/15			GR5/16		GR5/17	GR5	
	Geometry(6)			Number Skills(8)		Number Skills(9)	WEEK 31 & WEEK 32	
	Drawing and interpreting Graphs, Scaling, Translations and Reflections			Negative numbers, Roman Numerals, BODMAS, inverse operations		Finding change, add and subtract money	REVISION	

YEAR 6 LONG TERM PLAN with CURRICULUM STANDARDS

YEAR 6	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8
Term 1	Fractions,decimals & Percentages (10)		Algebra (10)		Constructions(10)		Handling Data(5)	Probability (5)
	Learning Objective		Learning Objective		Learning Objective		Learning Objective	Learning objective
	Consolidate and extend mental methods of calculation to include decimals,fractions and percentages, solve word problems.		Use letter symbols to represent unknown numbers and variables. Know the meaning of 'term', expression and equation.		Construct all angles including reflex angle, construct triangles(ASA,SAS). Calculate missing angles on a straight line, around a point, in a triangle and in a quadrilateral.		Collecting data and Recording data	Use probability scale with words. Find the probability of equally likely outcomes. Revise the topics done.
Term 1	Sequences & Patterns (10)		Area Perimeter (10)		Transformations(10)		Cordinates and linear graphs (10)	
	Learning Objective		Learning Objective		Learning Objective		Learning Objective	
	Work out Area and perimeter of squares, rectangles and other compound shapes made of squares and rectangles.		Work out Area and perimeter of squares, rectangles and other compound shapes made of squares and rectangles.		understand and use the language and notation associated with rotations, translations and reflections.Transform 2-D shapes by simple combinations of rotations, reflections and translations.		Read and plot coordinates in all four quadrants, generate coordinate pairs, that satisfy a simple linear functions, where y is given specifically in terms of x, recognise straight line graphs parallel to the x- axis and y-axis.	
YEAR 6	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8
Term 2	Statistics(10)		Measures(10)		Time (5)		Money(5)	
	Learning objective		Learning Objective		Learning objective		Learning objective	
	To calculate mean, median, mode and range from sets of discrete data and grouped frequency table.		Convert from one unit of measure to another & answer questions about scales,Compare readings from different scales		reading time, analogue and digital clock, time duration.		Conversion of pounds to pence and back, solving money word problems	
Term 2	Ratio Proportion (10)		Shapes(10)		REVISION		PRE MOCK EXAMS	MOCK EXAMS
	Learning Objective		Learning Objective		REVISION		PRE MOCK EXAMS	MOCK EXAMS
	Solve simple problems using ideas of ratio and		Show relationships involving Quadrilaterals & polygons,Classify shapes using properties such as parallel & perpendicular,Using Venn diagrams. Properties of 3-D shapes, identifying their nets		Revise YEAR 3,4,&5 portion			

YEAR 7 LONG TERM PLAN with CURRICULUM STANDARDS

YEAR7	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8
Term 1	GR7/1	GR 7/2	GR7/3	GR/4	GR7/5	GR7/6	GR7/7	GR7/8
	Unit2.Number Skills(8)	Contd Number skills	Unit3.Equations /formulae	Unit7. Equations(3)	Unit4-Fractions(7)	Contd Unit4-Fractions	Unit5-Angles and shapes	Contd Unit5-Angles and shape
	Factors,primes and multiples.HCF & LCM.Using directed numbers (2.1 & 2.2)	Squares and square roots.More powers and roots.Simplifying algebraic expressions (2.4,2.5 & 3.1)	Writing algebraic expressions/Using formulae Writing formulae/Brackets and powers (3.2 - 3.5)	Factorising expressions/ Solving one step/two step equations (3.6,7.1 & 7.2)	Working with Fractions/ Addition and subtraction of fractions/Multiplication and division of fraction (4.1 - 4.3)	Working with mixed numbers(all four operations)/Angles and Parallel lines (4.5 & 5.1)	Angles and parallel lines/Triangles/Quadrilaterals (5.1 - 5.3)	Quadrilaterals/Polygons. Geometrical proofs (5.3 & 5.4)
Term 1	GR7/9	GR 7/10	GR7/11	GR7/12	GR7/13	GR7/14	GR7/15	
	Analysing and Displaying data	Analysing and Displaying data	Unit10 Sequences and Graphs	Contd Sequences and Graphs.	Unit9. Perimeter,area and	Unit9. Perimeter,area and	Revision	
	Averages and range, Grouped data (1.2 & 1.3)	More graphs/Pie -charts (1.4 & 1.5) + assessment	Sequences/nth term/pattern sequences (10.1, 10.2 & 10.3)	Coordinates and line segments/straight line graphs (10.4 & 10.5)	Triangles/parallelograms /trapezium/Area and perimeter of compound shapes (9.1 & 9.2)	Properties of 3D solids/Surface area/Volume (cube and cuboid) - (9.3,9.4 & 9.5)	Reinforce all the concepts taught and discuss the worksheets.	
YEAR 7	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8
Term 2	GR7/16	GR7/17	GR7/18	GR7/19	GR7/20	GR7/21	GR7/22	GR7/23
	Unit6.Decimals(5)	Contd.Decimals(5)	Contd.Decimals(5)	Unit8 Multiplicative Reasoning(1)	Unit8-Contd Ratios.	Unit 3.2D shapes and 3D	Unit 3.2D shapes and 3D	Contd Unit 3.2D shapes and 3
	Ordering decimals/Rounding decimals/Addition and subtraction of decimals (6.1 - 6.3)	Multiplication and Division of decimals + assessment (6.4 & 6.5)	Conversion of fractions,decimals and percentages.+assessment (6.6)	Writing ratios/sharing a given ratio/Proportion (8.2 & 8.3)	Direct and inverse proportion/Using the unitary method (8.4 & 8.5)	Surface area of prisms/Volume of prisms (triangular prism only) (3.2 & 3.4)	Circumference and Area of circles/ semicircles/ quadrants (3.4)	Circumference and Area of circles/ semicircles/ quadrants (3.5)
Term 2	GR7/24	GR7/25	GR7/26	GR7/27	GR7/28	GR7/29	GR7/30	
	Delta2 Unit8 Probability(10)	Contd probability		Unit 5 Delta2 Transformations(5)	Contd Transformations(5)	Contd Transformations(5)	Revision	
	Comparing probabilities/Mutually exclusive events/ estimating probability (8.1 - 8.3)	Experimental probability/Probability diagrams/ assessment (8.4 & 8.5)	Construction of triangles(SAS,SSS.ASA)/Perpendicular bisector/Angle bisector	Describe and carry out Translations/Describe and carry out Reflections (5.1)	Describe and carry out rotations. Enlarge a shape and describe an enlargement((5.2 & 5.3)	Enlargements a shape using negative scale factor and fractional scale factor (5.3 & 5.4)	Reinforce all the concepts taught and discuss the worksheets.	

YEAR 8 LONG TERM PLAN with CURRICULUM STANDARDS

YEAR 8	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8
Term 1	GR 8/ 1	GR 8/ 2	GR 8/ 3	GR 8/ 4	GR 8/ 5	GR 8/ 6	GR 8/7&8	
	UNIT 1: Factors and powers (Delta 2)	UNIT 1: Factors and powers	UNIT 1: Factors and powers (Delta 2)	UNIT 2 :Working with powers(Delta 2)	UNIT 2 :Working with	UNIT 2 :Working with	UNIT6:Fractions,Percentages and Decimals(Delta 2)	
	Prime factor decomposition of a number.To find HCFand LCM using venn diagrams.Solving word problem in HCFand LCM.	To work out laws of indices for positive powers.To use laws of indices from multiplying and dividing.	To use and understand powers of 10. To calculate with powers. Round to a number of significant figures.	Simplifying algebraicexpressions. involving powers and brackets+Assessment	To use the index laws in algebraic calculations and expressions. Factorise an algebraic expressions.	To substitute integers into expressions. To construct and solve equations+Assessment	Change a recurring decimal into a fraction. To calculate percentages .To work out an original quantity before percentage increase and decrease.	
Term 1	GR 8/ 9	GR 8/ 10	GR 8/11&12		GR 8/13&14		GR 8	
	Unit 3: Fractions, Percentages and Decimals	UNIT 4:RealLife	UNIT 5:Transformations(Delta 2)		Unit 3:3D Solids(Delta 2)		Week 15 and Week 16	

Term 1	To calculate percentage change. To calculate the effect of repeated percentage changes+ Assessment		Draw and interpret Distance-time graphs, Interpret real life graphs.		To describe and carry out Reflection, Translation & Rotation.To enlarge a shape ,To describe an enlargement.To enlarge a shape using negative and fractional scale factor.		Surface area of prisms,Volume of prisms,Circumference and Area of a circle,Cylinders,Pythagoras Theorem.		REVISION	
	YEAR 8	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	
Term 2	GR 8/17&18			GR 8/19&20			GR 8/21&22		GR 8/23&24	
	UNIT 8:Probability(Delta 2)			Unit 9:Scale Drawing and Measures(Delta 2)			UNIT 7: Construction and Loci (Delta 2)		Unit 10:Graphs(Delta 2)	
	Comparing probabilities.Mutually exclusive events, Estimating probability, experimental and probability diagrams			Maps and scales.Bearings.Scales and ratio.Congruent and similar shapes.To use similiarity to solve problems in 2D shapes+Assessment			Accurate drawings.Construct triangles.Constructing perpendicular bisectors and angle bisectors. Draw Locus. Use loci to Solve problems.		Plotting linear graphs,The gradient, $y=mx+c$,Parallel and perpendicular lines+Assessment	
Term 2	GR 8/25		GR 8/26		GR 8/27		GR 8/28&29		GR 8/30	
	UNIT 1:Powers and Roots(Delta 3)		UNIT 2:Quadratics(Delta 3)		Qualities, equations and formulae		Unit 4:Collecting and Analysing Data(Delta 3)		Arcs and Sectors of circles(Delta 2)	
	To write the numbers using Standard form. Using Index Laws with zero and negative powers.		To multiply pairs of brackets.Square a linear expression.Using quadratic identities+Assessment		To construct and solve complex equations.Changing the subject of a formulae.		To draw stem and leaf diagrams. To construct frequency polygons. To estimate the mean and range from a grouped frequency table.		Work out the length of an arc.Work out the area of a sector.Solve problem involving arc and sector.	
								GR 8		
								Week 31 and Week 32		
								REVISION		

YEAR 9 LONG TERM PLAN with CURRICULUM STANDARDS

YEAR 9	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8
Term 1	GR 9/1	GR 9/2	GR 9/3	GR 9/4	GR 9/5	GR 9/6	GR 9/7	GR 9/8
	Number (6)	Number Contd (5) + Assessment(1)	Graphs (6)	Graphs Contd (6)	Graphs Contd (5) + Assessment	Algebra (6)	Algebra Contd (5)+ Assessment	Algebra Contd (6)
	Place value and estimating,HCF and LCM. Calculating with powers (indices).Zero,negative and fractional indices.	To write a number in standard form. To calculate with numbers in standard form.Understand the difference between rational and irrational numbers.Simplify a surd. Rationalise a denominator.	To find the gradient and y intercept from a linear equation.To rearrange an equation into the form $y=mx+c$.To plot graphs with equations $ax+by+c$.To find the equation of a line given its gradient and one point.	To draw and interpret distance-time graphs.To calculate average speed from a distance - time graph.To understand velocity - time graphs.To find acceleration and distance from velocity - time graphs.To draw and interpret real - line linear graphs.	To find the coordinates of the midpoint of a line segment.To find the gradient and length of a line segment.To find the equations of lines parallel or perpendicular to the given line.To solve simultaneous equations graphically.	To use the rules of indices to simplify algebraic indices. To expand brackets. To factorise algebraic expressions.	To solve equations involving brackets and numerical fractions.To substitute numbers into formulae.To rearrange formulae.	To solve sums on linear sequences.To expand the product of two brackets.To use the difference of two squares.
Term 1	GR 9/9	GR 9/10	GR 9/11	GR 9/12	GR 9/13	GR 9/14	GR 9/15 & GR9/16	
	Algebra Contd (6)	Transformations and Constructions (6)	Transformations and Constructions (6)	Transformations Contd (6)	Angles and Trigonometry (6)	Angles and Trigonometry Contd (6)	Revision	
	To factorise quadratics of the form ax^2+bx+c ..To solve simple simultaneous equations.	3D solids.Draw plans and elevations of 3 D solids. Reflection, Translation and Rotation	Enlarge shapes by fractional and negative scale factors about a centre of enlargement. To draw scales on maps.	To draw scales on maps.To solve problems involving bearings.Construction of angle bisector and perpendicular bisector.To draw a locus.Use loci	To derive and use angle properties of triangles,quadrilateral and exterior angle of triangle.To calculate the	To solve problems involving Pythagoras theorem.To use trigonometric ratios to find the lengths and angles in a right angled triangle.To find	Reinforce all the concepts taught and discuss the revision work	

YEAR 9	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8
Term 2	GR 9 /17	GR 9/18	GR 9/19	GR 9/20	GR 9/21	GR 9/22	GR 9/23	GR 9 /24
	Fractions,ratio and percentages (6) To add subtract multiply divide fractions and mixed numbers.To compare ratios.To find quantities using ratios.	actions,ratio and percentages Contd To solve problems involving ratio.To convert between currencies and measures.To use direct proportion.	actions,ratio and percentages Contd To work out percentage increase and decrease.To solve real - life problems involving percentages.	(s,ratio and percentages Contd (5)+ Assess Calculate using fractions,decimals and percentages.To convert a recurring decimal to a fraction	interpreting and representing data Cont To construct and use back-to-back stem and leaf diagrams.Construct and use frequency polygons and pie charts.	interpreting and representing data Cont To plot and interpret time series graphs.To use trends.To plot and interpret scatter graphs.	nd representing data Contd (5)+ Draw a line of best fit on a scatter graph.Use the line of best fit to predict values.Moving Averages	interpreting and representing data Contd (6) Estimate the mean and range from a grouped frequency table.To find the modal class and the group containing the median.To construct and use two-- way tables.
Term 2	GR 9 /25	GR 9/26	GR 9/27	GR 9/28	GR 9/29	GR 9/30	GR 9/31 & GR 9/32	
	Area and volume (6) To find the perimeter and area of compound shapes.To convert between metric units .To calculate the maximum and minimum possible values of a measurement.	Area and volume Contd (5) + Assess To convert between metric units of volume.To calculate volumes and surface areas of prisms.To calculate the area and circumference of a circle.	Area and volume Contd (6) To calculate the area and perimeter of semis circles and quarter circles.To calculate arc lengths,angles and areas of sectors of circles.	Area and volume Contd (6) To calculate volume and surface area of a cylinder and a sphere. To solve problems involving surface area and volume.	Area and volume Contd (6) To calculate volume and surface area of a pyramids and cones.To solve problems involving pyramids and cones.	Area and volume Contd (6) To solve problems on combined events.To find probabilities of mutually exclusive events. Experimental Probability.Independent events.To draw and use probability tree diagrams.	Probability (6)	Revision Reinforce all the concepts taught and discuss the revision work

YEAR 10 LONG TERM PLAN with CURRICULUM STANDARDS

YEAR 10	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8
Term 1	GR 10 /1	GR 10 /2	GR 10 /3	GR 10 /4	GR 10 /5	GR 10 /6	GR 10 /7	GR 10 /8
	Equations and inequalities(6) Solve quadratic equations by factorisation, use the quadratic formula and by completing the square. (9.1 - 9.3)	Equations and Inequalities Recognise and draw quadratic functions. Find approximate solutions to quadratic equations graphically.(15.3-15.4)	Equations and inequalities (Continue) Solve simultaneous equations algebraically and graphically Solve quadratic simultanious. (9.4 - 9.6,15.2)	Equations and inequalities (Continue)(6) Solving linear inequalities and shading region. Solving quadratic inequalities. (9.7, 15.2)	Similarity and To show that two triangles are congruent.To know the conditions of congruence.To prove shapes are congruent.To solve problems involving congruence.	Similarity and To use the ratio of corresponding sides to work out scale factors.To find missing lengths on similar shapes.	Similarity and congruence(6) Use the link between scale factors for length, area and volume to solve problems	More Trigonometry(6) Use trigonometric ratios to solve problems. Know exact values of the sine, cosine and tangent of some angles. Upper and lower bounds in trigonometry.Find the area of a triangle and a segment.
Term 1	GR 10 /9	GR 10 /10	GR 10 /11	GR 10 /12	GR 10 /13	GR 10 /14	GR 10 /15	
	More Trigonometry (Continued) (6) Find the area of a triangle and a segment of a circle. Use the sine rule to solve 2D problems.	More Trigonometry (Continued) (6) Use the cosine rule to solve 2D problems. Solve bearings problems using trigonometry	Circle theorems (6) Understand about tangents at a point and from a point. Prove and use facts about angles subtended at the centre and the circumference, angle in a semicircle and angles subtended	Circle theorems (Continue) (6) Understand, prove and use facts about cyclic quadrilaterals and alternate segment theorem. Give reasons for angle sizes using mathematical language. Find the equation of the tangent to a circle at a	Circle theorems Solve angle problems using circle theorems. Give reasons for angle sizes using mathematical language. Find the equation of the	Circle theorems Revision of Year 9 topics(6)	Revision(12) Reinforce all the concepts taught and discuss the worksheets for first summative exam	

YEAR 10	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8
Term 2	GR 10 /16	GR 10 /17	GR 10 /18	GR 10 /19	GR 10 /20	GR 10 /21	GR 10 /22	GR 10 /23
	Vectors and geometric proof (6)	Vectors and geometric proof (6)	Further statistics (6)	Further statistics (6)	Multiplicative reasoning(6)	Multiplicative reasoning.(Continue	Probability(6)	Probability(6) (contd)
	Understand and use vector notation. Calculate the resultant of two vectors, to solve vector problems, position vectors. Prove lines are parallel. Prove points are collinear.	Solve geometric problems in two dimensions using vector methods. Apply vector methods for simple geometric proofs.	Understand simple random sample and stratified sample. Draw and interpret cumulative frequency tables.	Work out the median, quartiles and interquartile range from a cumulative frequency diagram. Draw and interpret box plots. (14.1 - 14.3	Find an amount after repeated percentage changes. growth and decay, rates.Convert metric speed measures. Compound measures, ratio,direct and indirect proportion.	Solve problems involving compound measures. Use relationships involving ratio. Use direct and indirect proportion	Draw and use frequency trees. Draw and use probability tree diagrams. use tree diagrams, two-way tables	Venn diagrams to calculate conditional probability. Use set notation
Term 2	GR 10 /24	GR 10 /25	GR 10 /26	GR 10 /27	GR 10 /28	GR 10 /29	GR 10 /30	
	Area and volume(6)	Algebra (6)	Transformations and constructions (6)	Transformations and constructions (6)	Interpreting and representing	Graphs(6)	Revision(12)	
	Solve problems involving volumes and surface areas. Calculate volume and surface area of pyramids and cones.	Solve problems using geometric sequences. Work out terms in Fibonacci-like sequences. Find the nth term of a quadratic sequence (2.6)	Describe combinations of transformations, scale drawings, bearings.Construct triangles using a ruler and compasses, shortest distance from a point to a line.	Draw a locus. Use loci to solve problems.	Plot and interpret time series graphs. Use trends to predict the future. Construct and use two-way tables. Choose appropriate diagrams to display data. Recognise misleading graphs.	Draw and interpret distance–time graphs. Average speed from a distance–time graph. Velocity–time graphs. Acceleration and distance from velocity–time graphs.	Reinforce all the concepts taught and discuss the worksheets including revision topics of year 9 { Unit 1- Unit 8} for final exam	

YEAR 11 LONG TERM PLAN with CURRICULUM STANDARDS

YEAR 11	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8
Term 1	GR11/1	GR11/2	GR11/3	GR11/4	GR11/5	GR11/6	GR11/7	
	Unit 13More Trigonometry(7)	More Trigonometry(contd) (3)	More Trigonometry(contd)(5)	Unit19Proportion and Graphs(6)	More Trigonometry(6)	Unit6Graphs(5)	Proportion and Graphs(8)	
	Use upper and lower bounds in calculations, Calculating areas and the sine rule, The cosine rule and 2D trigonometric problems	Solving problems in 3D	Graphs of sine, cosine and tangent functions. Assessment - 1 Unit 13 and Revision topics Unit 5	Translating, Reflecting and Stretching graphs of functions	Reflecting, translating and stretching Trigonometric curves, Solve equations. Assessment - 2 Transformation	D/T, V/T and More real life graphs	Calculate the gradient of a tangent at a point, Estimate the area under a non linear graph. Assessment 3	
Term 1	GR11/8	GR11/9	GR11/10	GR11/11	GR11/12	GR11/13	GR11/14	
	Unit 15 Equations and	Unit 14 Further Statistics(5)	Further Statistics(5)	Unit 17More Algebra(5)	Unit11Multiplicative Reasoning	Unit 7Area and Volume (5)	Revision	
	To find an accurate root of a quadratic and cubic equation by using iterative process. Assessment - revision unit 9 and unit 15	Sampling, cumulative frequency, box plots	Drawing and interpreting Histograms, comparing and describing population Assessment revision units - 1,2,4,	Algebraic fractions, surds, solving algebraic fraction equations , functions	Growth, decay, compound measures, ratio and proportion	Prisms, circles, sectors of circles, cylinders and spheres, pyramids and cones	Reinforcing all the concepts done and discussion of past papers.	
YEAR 11	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8
Term 2	GR11/15	GR11/16	GR11/18	GR11/19	GR11/20	GR11/21	GR11/21	GR11/22
	Unit16Circle Theorems(5)	Unit18Vectors and Geometric Pro	Unit10Probability(5)	Unit12Similarity and Congruence(5)	Unit11Similarity and Congruence(5)	Interpreting and representing	Unit8Transformation	Transformation and Constructions
	To prove and apply all the circle theorems	Vector Arithmetic, Parallel and collinear vectors, Solving geometric problems Assessment 1	Mutually exclusive, Independent events, Experimental probability, conditional probability, venn diagrams and set notation	Similar , Congruent triangles,	similarity in 3D shapes. Assessment 2	Time series, scatter diagrams, line of best fit, averages and range	Reflection, Translation, enlargement and Rotation, Bearings and scale drawings	Constructions and loci

Term 2	GR11/ Revision						
	Reinforcing all the concepts taught. Disussion of sample papers and mock papers.						

YEAR 12 LONG TERM PLAN with CURRICULUM STANDARDS

YEAR 12	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8
Term 1	Y12 / 1 (3)	Y12 / 2 (3)	Y12 / 2 (2) & 3 (1)	Y12 / 3 (3)	Y12 / 4 (3)	Y12 / 4 (2) & 5 (1)	Y12 / 5 (2) & 6 (1)	Y12 / 6 (3)
	Algebraic Expressions	Quadratics	Quadratics, Equations and	Equations and inequalities	Graphs and	Graphs and	Straight Line Graphs,	Circles
	Expanding Brackets and Factorising, Index Laws, Negative and Fractional Indices, Surds and Rationalising denominators	Solving Quadratic Equations by (i) Factorising (ii) Quadratic Formula, Completing the square, Functions	Sketching Quadratic graphs, Finding the nature of roots using Discriminant, Modelling with quadratics, Solving Linear simultaneous equations, Solving Quadratic Simultaneous equations	Representing simultaneous equations on graphs, Solving Linear Inequalities, Solving Quadratic inequalities, Inequalities on graphs, Regions	Sketching cubic graphs, Sketching Reciprocal Graphs, Sketching Quartic Graphs, Sketching curves to find point of intersection	Translation of graphs, Stretching and reflecting Graphs, Transformation of Graphs, Gradient and Equation of the line, Review Exercise 1	Parallel and Perpendicular lines, Length and area, Modelling with straight lines, Midpoint and Perpendicular Bisectors, Equation of a circle	Intersection of straight lines and circles, Use tangent and Chord Properties, Circles and triangles
Term 1	Y12S1 / 1 (3)	Y12S1 / 2 (3)	Y12S1 / 2 (3)	Y12S1 / 2 (3)	Y12S1 / 3 (3)	Y12S1 / 3 (3)	Y12S1 / 4 (3)	Y12S1 / 4 (3)
	Data collection	Measures of location and	Measures of location and	Measures of location and spread	Representation of data	Representation of data	Correlation	Correlation
	Population and samples, Sampling, Non random sampling, Types of data, Large data set.	Measure of central tendency: Mean Median Mode and Quartiles.	Percentile, Measures of spread, Variance and standard deviation.	Variance and standard deviation and Coding.	Outliers, Box plots and Cumulative frequency.	Histogram with unequal intervals and Comparing data.	Scatter Diagram and Correlation, Linear regression	Interpretation of regression line and gradient.
YEAR 12	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8
Term 1	Y12 / 7 (3)	Y12 / 7 (1) & 8 (2)	Y12 / 8 (2) & 9 (1)	Y12 / 9 (3)	Y12 / 10 (3)	Y12 / 10 (3)		
	Algebraic Methods	Algebraic Methods, Binomial	Binomial Expansion,	Trigonometric Ratios	Trigonometric Identities	Trigonometric Identities	Revision	Revision
	Algebraic fractions, Dividing polynomials, Factor theorem, Mathematical Proof	Methods of proof, Pascal's triangle, Factorial Notation and Binomial Expansion	Solving binomial problems, Binomial Estimation, Cosine Rule , Sine Rule	Area of triangle, Solving triangle problems, Graphs of Sine, Cosine, Tangent, Transforming trigonometric graphs	Angles in all four quadrants, Exact value of trigonometical ratios, Trigonometric identities	Simple trigonometric equations, Harder trigonometric equations, Equations and Identities, Review Exercise 2f		
Term 1	Y12S1 / 5 (3)	Y12S1 / 5 (3)	Y12S1 / 5 (3)	Y12S1 / 6 (3)	Y12S1 / 6 (3)	Y12S1 / 6 (3)		
	Probability	Probability	Probability	Statistical Distributions	Statistical Distributions	Statistical Distributions	Revision	Revision
	Calculating Probabilities and Venn Diagrams.	Mutually exclusive and Independent events.	Tree diagrams and Conditional Probability	Probability Distributions	Binomial Distribution	Cumulative Probabilities		
YEAR 12	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8
Term 2	Y12 / 11 (3)	Y12 / 11 (3)	Y12 / 12 (3)	Y12 / 12 (3)	Y12 / 12 (3)	Y12 / 12 (3)	Y12 / 13 (3)	Y12 / 13 (3)
	Vectors	Vectors	Differentiation	Differentiation	Differentiation	Differentiation	Integration	Integration
	Vector notation, Representing as column vectors Magnitude	Position vectors, Representing as column	Gradient of curve, Finding the	Differentiating quadratics, functions with two or more	Increasing and decreasing functions, Second order derivatives, Stationary	Sketching gradient functions, Modelling with	Integrating xn, Indefinite	Finding functions using

	as column vectors, magnitude and direction	vectors, Magnitude and direction	derivative, Differentiating x^n	functions with two or more terms, Tangents and normals	derivatives, stationary points, Maximum and minimum points	functions, modelling with differentiation	integrals	integration, Definite integrals
Term 2	Y12S1 / 7 (3)	Y12S1 / 7 (3)	Y12S1 / 7 (3)	Y12S2 / 1 (3)	Y12S2 / 1 (3)	Y12S2 / 2 (3)	Y12S2 / 2 (3)	Y12S2 / 2 (3)
	Hypothesis Testing	Hypothesis Testing	Hypothesis Testing	Regression, Correlation and	Regression, Correlation	Conditional Probability	Conditional Probability	Conditional Probability
	Test Statistic, Null and Alternative Hypothesis and Finding Critical Values.	One tailed test, Comparing significance level and finding critical region.	Two tailed test, Comparing significance level and finding critical region.	Exponential Models and Measuring correlation.	Hypothesis Testing for zero correlation.	Set Notation, Conditional Probability.	Conditional Probabilities in Ven diagrams.	Probability Formulae

YEAR 12	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8
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Term 2	Y12 / 13 (3)	Y12 / 13(1) & 14 (2)	Y12 / 14 (3)	Y12 / 14 (3)	Y12 / 14 (3)	Y12 / 14 (3)		
	Integration	Integration, Exponentials	Exponentials and Logarithms	Exponentials and Logarithms	Exponentials and	Exponentials and	Revision	Revision
	Areas under the curve, Areas under the x axis	Area between curve and line, Exponential Functions	Graph of $y = e^x$, Exponential modelling	Logarithms, Laws of logarithms	Solving equations using logarithms, Working with natural logarithms	Logarithms and non linear data, Review Exercise 3		

Term 2	Y12S2 / 2 (3)	Y12S2 / 3 (3)	Y12S2 / 3 (3)	Y12S2 / 3 (3)	Y12S2 / 3 (3)	Y12S2 / 3 (3)		
	Conditional Probability	Normal Distribution	Normal Distribution	Normal Distribution	Normal Distribution	Normal Distribution	Revision	Revision
	Conditional Probabilities in Tree Diagrams.	Understanding normal distribution and its characteristics and Finding probabilities for normal distributions.	Inverse normal distribution function and Standard Normal Distribution.	Finding μ and σ	Approximating a Binomial Distribution.	Hypothesis Testing with the Normal Distribution.		

YEAR 13 LONG TERM PLAN with CURRICULUM STANDARDS

YEAR 12	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8
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Term 1	Y13 / 1 (3)	Y13 / 1 (3)	Y13 / 2 (3)	Y13 / 2 (3)	Y13 / 2 (2) & 3(1)	Y13 / 3 (3)	Y13 / 3 (3)	Y13 / 3 (1) & 4 (2)
	Algebraic Methods	Algebraic Methods	Functions and graphs	Functions and graphs	Functions and graphs,	Sequences and series	Sequences and series	Sequences and series, Binomial
	Proof by contradiction, algebraic fractions	Partial Fractions, Repeated Factors and Algebraic division	The modulus function, Functions and mappings, Sketching modulus functions	Composite functions and inverse functions	Combining transformations, solving modulus problems, & Arithmetic Sequence and series	Geometric sequence and series,	Sum to infinity, Sigma Notation and recurrence relation.	Modelling with series & Expanding $(1+x)^n$ and $(a+bx)^n$.

Term 1	Y13M1 / 8 (3)	Y13M1 / 9 (3)	Y13M1 / 9 (3)	Y13M1 / 10 (3)	Y13M / 10 (3)	Y13M1 / 10 (3)	Y13M1 / 11 (3)	Y13M1 / 11 (3)
	Modelling in Mechanics	Constant Acceleration	Constant Acceleration	Forces and Motion	Forces and Motion	Forces and Motion	Variable Acceleration	Variable Acceleration
	Constructing a model and modelling assumptions, Quantities and units and working with vectors.	Displacement-time graph, Velocity-time graph.	Constant Acceleration Formula 1 and 2, Vertical motion under gravity.	Force diagrams, Forces and vectors, Force and Acceleration.	Motion in 2 dimensions, Connected Particles.	Connected Particles and Pulleys.	Functions of time using differentiation, Maxima and Minima problems.	Using Integration and constant acceleration formula.

YEAR 12	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8
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	Y13 / 4 (2) & 5 (1)	Y13 / 5 (3)	Y13 / 5 (1) & 6 (2)	Y13 / 6 (1) & 7 (2)	Y13 / 7 (3)	Y13 / 7 (2) & 8 (1)	Y13 / 8 (3)	Y13 / 10 (3)
	Binomial Expansion, Radians	Radians	Radians, Trigonometric	Trigonometric Functions,	Trigonometry and	Trigonometry and	Parametric Equations	Numerical Methods

Term 1	Using Partial Fractions to simplify the Binomial Expansion & Radian Measure, Arc length.	Area of sector and segment, Solving trigonometric equations.	Small Angle Approximation & Graphs of Sec x, Cosec x, Cot x, Using Sec x, Cosec x, Cot x in trigonometric identities.	Inverse trigonometric functions & Using Angle Addition Formula and Double angle formula.	Solving trigonometric equations, Simplifying $a \cos x \pm b \sin x$, Proving trigonometric identities	Modelling with trigonometric functions & Parametric Equations, Using trigonometric identities.	Curve Sketching, Points of intersection and modelling with parametric equations.	Locating roots, Iteration, The Newton Raphson method, Applications to modelling.
Term 1	Y13M2 / 4 (3)	Y13M2 / 4 (3)	Y13M2 / 4 (2) & 5 (1)	Y13M2 / 5 (3)	Y13M2 / 5 (2) & 6 (1)	Y13M2 / 6 (3)	Y13M2 / 6 (3)	Y13M2 / 6 (1) & Test (2)
	Moments	Moments	Moments, Forces and Friction	Forces and Friction	Forces and Friction,	Projectiles	Projectiles	Projectiles & Module Test
	Moments, Resultant Moments.	Equilibrium and Centre of mass.	Tilting & Resolving Forces	Inclined Planes and Friction	Friction & Horizontal Projection	Horizontal and Vertical Components, Projection at any angle.	Projection at any angle and Projectile Motion Formulae.	Projectile Motion Formulae & Module Test.
YEAR 12	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8
Term 2	Y13 / 9 (3)	Y13 / 9 (3)	Y13 / 11 (3)	Y13 / 11 (3)	Y13 / 11 (3)	Y13 / 12 (3)	Y13 / 12 (3)	
	Differentiation	Differentiation	Integration	Integration	Integration	Vectors	Vectors	Practise
	Differentiating exponentials and logarithms and trigonometric functions. Chain rule, Product rule, Quotient rule	Parametric Differentiation, Implicit Differentiation using second derivatives, Rates of change.	Integrating standard functions, $f(ax+b)$, Using trigonometric identities, reverse chain rule	Integration by substitution, Integration by parts, Partial fractions,	Finding areas, trapezium rule, solving differential equations, modelling with differential equations.	3D coordinates, vectors in 3D, Solving geometric problems.	Application to Mechanics.	Exam style Practice Paper 1 & 2
Term 2	Y13M2 / 7 (3)	Y13M2 / 7 (3)	Y13M2 / 7 (3)	Y13M2 / 7 (3)	Y13M2 / 8 (3)	Y13M2 / 8 (3)	Y13M2 / 8 (3)	Y13M2 / 8 (1) + Test (2)
	Applications of Forces	Applications of Forces	Applications of Forces	Applications of Forces	Further Kinematics	Further Kinematics	Further Kinematics	Further Kinematics & Module
	Static Particles, Modelling with statics.	Friction and Static Particles, Static Rigid Bodies.	Static Rigid Bodies, Dynamics and inclined Planes.	Dynamics and inclined Planes and Connected Particles.	Vectors in Kinematics and Vector Methods and projectiles.	Vector Methods and projectiles and Variable Acceleration in one dimension.	Variable Acceleration in one dimension and Differentiating Vectors.	Integrating Vectors & Module Test.
YEAR 12	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8
Term 2								
	Revision	Revision						
Term 2								
	Revision	Revision						