Maths

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The Maths department offer skills in line with the national curriculum under five categories namely: algebra, calculating, geometry and measures, number systems, and statistics and probability. Teaching is engaging which enables pupils to acquire key mathematical skills that builds on their prior knowledge and addresses any gaps in understanding. The Maths curriculum is supplemented by access to White Rose Maths subscription. Students works towards Entry Level Certificate and or GCSE.

Entry Level qualification is available at Entry Level 1, Entry Level 2 or Entry Level 3). The Pearson Edexcel Entry Level Certificate in Mathematics consists of one externally-set test and one externally-set task for Entry 1 and 2 and two externally-set tests and one externally-set task for Entry 3.

GCSE qualification-There are two tiers of entry available. Each student is permitted to take assessments in either the Foundation tier or Higher tier. All three papers must be from the same tier of entry and must be completed in the same assessment series.

Syllabus materials KS4:

AQA | Subjects | Mathematics | Functional Skills

AQA | Mathematics | GCSE | Mathematics

Careers in Maths:

1438 My Learning My Future Mathematics FINAL.pdf (careersandenterprise.co.uk)

Schemes of work:

*Although there is a clear structure to the maths curriculum, additional time may be needed to review content from previous years.

	Autumn One	Autumn Two	Spring One	Spring Two	Summer One	Summer Two
Year 7	Number-Calculating and place	Geometry and Measure 1-	Number – Properties of number	Geometry and measure –	Number- Fractions, Decimals	Geometry and Measure -
	value	Mensuration	 Multiples 	Constructions	Percentages	Transformations
	Place value	CalendarsTime	Key vocabulary	• 2D shapes •	Reading decimal scalesMixed numbers	Reflection
	To use < and > to compare numbers	• Money	Times table	Key Vocabulary	 Introduction to fractions 	Key vocabulary
	Number linesRounding	Key vocabulary	Multiple	ShapeCircle		Mirror lineReflect
	4 operations	MonthsDays	Algebra 2- Functions, coordinates and graphs	Semi-circleTriangle	Key Vocabulary	• Reflection
	Key vocabulary	WeeksHours	Coordinates Key Vocabulary	SquareRectangle	Mixed numberDecimal	Line of symmetry
	Digit/onesTensHundred	minutesSeconds12 hour clock	AxesCoordinate	PentagonHexagonOctagon	Decimal pointFraction	Handling data- Interpreting and representing data

	 Thousands Placeholder Partitioning Nearest Multiplication Division Addition Subtraction Greater than Less than Equal to Negative 	 24 hour clock Analogue Digital Yeas (inc leap) Pound Pence Geometry and Measure-menstartion Measuring Perimeter Key Vocabulary Centimetre Millimetre Perimeter Area Square centimetre Length Width Width 	Geometry and Measure- geometrical reasoning • Angles (different types) Key vocabulary • Angle • Degrees • Acute • Right angle • Obtuse • straight • Reflex	 Heptagon Parallelogram Rhombus Algebra -Sequences Missing numbers in simple calculations Function machines Continuing a sequence Key vocabulary Sequence Unknown number Position Difference Input Output Inverse 	Probability scale Key vocabulary Chance Likely/unlikely Probability scale	 Interpret/draw pictographs and bar charts Use a tally chart Interpret data Key vocabulary Questionnaire Data Information Tally Chart Pictogram Bar chart Frequency
Year 8	Number- Calculating and place	Handling Data - interpreting and	Number – Properties of number	Geometry and measure –	Number- Ratio and proportion	Geometry and Measure-
	Written methods of multiplication and division Multiplication/division by 10, 100, 1000 Key vocabulary Column method Grid method Long multiplication Long/Short division Approximate Decimal Product	representing data • Mode, median, mean and range Key Vocabulary • Median • Mode • Range • Data • Order • Modal • Simplify Geometry and Measure-Mensuration • Appropriate measures and	 Multiples Factors Square/cube numbers Key vocabulary Factor Divisible Multiply Square/cube number Square/cube root Algebra - Functions, coordinates and graphs Coordinates - 4 quadrants 	Constructions	 Understand ratio Link ratio to fractions Simplifying ratio Key vocabulary Ratio Sharing Handling data – Probability Probability scale Listing outcomes Experimental probability Key vocabulary Outcome 	Transformations Reflection (diagonal line) Rotation symmetry Key vocabulary Order of rotational symmetry Rotation Centre of rotation Handling data Interpreting and representing data Two way tables Data collection Dual bar charts
	Number-Fractions, decimals and percentages • Rounding decimals	 units Perimeter and area- square, rectangle Measuring and drawing angles 	 X axis Y axis Quadrant	• Function machines (1 and 2 step) • Term to term rule	ChanceLikely/unlikelyFairProbability scale	Key vocabulary • Survey

 Improper fractions and mixed numbers Equivalent fractions Simplifying a fraction Introduction to percentages 10%, 25% 50% Key Vocabulary Denominator Numerator Equivalent fractions Fraction wall Improper fraction 	 • Protractor • Angles around a point • Angles on a straight line 	Negative Geometry and Measure - geometrical reasoning Properties of triangles/quadrilaterals Key vocabulary Quadrilateral Scalene triangle Isosceles triangle Equilateral triangle Right angle triangle	Key vocabulary Rule Term Term to term Algebra - Equations Collecting like terms I step linear equations Key vocabulary Like terms Equation	• Event	 Two way table dual
Year 9 Number- Calculating and place value Rounding (SF) Negative numbers (4 operations) Order of operations Key vocabulary Order of operations Significant Figure Positive Negative Number-Fractions, decimals and percentages Multiply/divide decimals Fraction/percentage of a Quantity Multiply/divide fractions Add/subtract fractions Key Vocabulary Quantity Quantity	 Grouped frequency Continuous data Key vocabulary Formula Modal Grouped frequency table Continuous data Geometry and Measure - Mensuration Perimeter and area- triangle, parallelogram and trapezium Perimeter and area of compound shapes 	Number – Properties of number Primes LCM HCF Key vocabulary Lowest common multiple Highest common factor Prime number Algebra Functions, coordinates and graphs Coordinates and midpoints Geometry and Measure-geometrical reasoning Drawing triangles Angles rules Key vocabulary Calculate Opposite angles Alternate angles Alternate angles Corresponding angles Suitable degree of accuracy	Geometry and measure— constructions Nets Surface area Key vocabulary Construct net Algebra -sequences Nth term Triangular numbers Fibonacci sequence Key vocabulary Triangular numbers Square numbers nth term Fibonacci Algebra - equations Collecting like terms Solving equations/Expanding brackets	Number- Ratio and proportion	Geometry and Measure- transformations Rotate a shape around a point Translate a shape Key vocabulary Translate Translation Rotation Handling data- Interpreting and representing data Scatter graphs and correlation Venn diagrams Interpret Pie charts Key vocabulary Pie chart Mean Assumed mean Average Correlation-positive, negative

Year 10	Number- Maths and Money • Earnings, Taxes and Bills	Handling data -Stastical Measure • Cumulative frequency • Scatter graphs	 Angles around a point Angles on a straight line Number - Properties of number Powers/roots Standard form 	 Brackets Substitute Equation Expression Expand Multiply out Geometry and measure – constructions Scale diagrams 	Number - Ratio and proportion • Graphs (conversion)	 Venn Sector Angle Geometry and Measure - transformations Enlarge a shape
	budgets and loans	Averages from a list/table				3
	Key vocabularyEarningsTaxesBillsBudgets	 Key vocabulary Grouped frequency table Frequency Discrete 	Key vocabularyPowerRootsStandard Form	 Scale Scale diagram Scale factor 	 Currency Conversion Direct proportion Proportional 	Key vocabularyTranslateTranslationCentre of enlargement
	• Loans	Line of best fit	Algebra - Functions, coordinates and	Algebra -sequences Nth term of a quadratic	Handling data –probability	Handling data- interpreting
	 Holiday 	Geometry and Measure -menstartion	graphs	sequence	Probability-tree	and representing data
	Number -Fractions, decimals and percentages	 Circles- area and circumference Volume-cubes/cuboids Key vocabulary Volume Prism Cross section Circumference Pi Cylinder Volume litre 	Distance speed graphs Key vocabulary Distance Speed Time Average speed Acceleration Deceleration Geometry and Measure - geometrical reasoning Multi step angle problems Parallel/perpendicular lines Interior/external angles polygons Key vocabulary	Key vocabulary • Algebraic rule Algebra - equations • 1 and 2 step equations • Inequalities • Expand brackets and simplify • Solving Expressions Key vocabulary • Expression • Substitute	diagrams Combined events Key vocabulary Combined event Tree diagram	 Straight Line graphs Pie charts Key vocabulary Gradient Values Axes Equation Angle Sector

			 Perpendicular 		
			 Intersect 		
			Interior		
			Exterior		
			Exterior		
Year 11	Number – Properties of Number	Handling data	Number - Ratio and proportion	Revision	
	 Rounding (R) 		Compare quantities using a		
	HCF and LCM (R)	Construct and interpret	l ratio		
	 Square and cube numbers 	frequency table and two way	Link ratio to fractions		
	(R)	tables (R)	Share in a ratio		
		Construct and interpret line			
	Powers and Roots (R)	graphs, bar charts scatter	Ratio and scales		
	Order of operations (R)	graphs and pie charts (R)	Ratio and Graphs		
	 Powers of 10/standard 	Stem Leaf diagrams	Inverse/direct proportion		
	form (R)		 Interest 		
		Geometry and measure			
	Key vocabulary	Geometry and measure	Key vocabulary		
		 Parallel/perpendicular lines 			
	Power of 10	 Volumes- prisms, cylinders 	Direct proportion		
	• Direct and Inverse	Vectors	Unit cost		
	proportion	Circle therom	 Proportional 		
		Pythagoras Theorem			
	Noushau Furstiana dasimala and		Handling data Probability		
	Number -Fractions, decimals and				
	percentages	• Loci	 Probability of equally likely 		
	Convert and compare		outcome (R)		
	fractions, decimals and		 Probabilities sum to 1 (R) 		
	percentages (R)	ncy rocasaidly	Tree diagrams (R)		
		 Pythagoras 	Probability with Venn		
	Percentages of amounts	Hypotenuse	diagrams		
	Percentage	Interior angle			
	increase/decrease (R)	Exterior angle			
			Key vocabulary		
		Polygon,	Comphined Street		
		• Nonagon	Combined Event		
		• Decagon	Mutually exclusive		
		Algebra- Equations			
		Algebra- Equations			
		One and two step equations			
		Nth term of a liner sequence (
		Straight line graphs			
		Simultaneous equations			
		- Simultaneous equations			

Quadratic equation gFactorising	raphs Revision		
Key vocabulary			
ConstantGradientQuadraticTangent			