Sir Thomas Boughey

Academy 2018/19
Faculty Area: Mathematics
Subject Title: Mathematics

Year 7	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Content / topics	Analyzing and Displaying Data Number Skills	Algebra: Expressions, Functions and Formulae Decimals and Measures	Fractions and Percentages Probability	Ratio and Proportion	Lines and Angles Sequences and Graphs	Transformations of shapes
Skills	Calculating Averages Drawing graphs: bar charts, pie charts, tally charts Mental Calculation Techniques Basic Operations Time Money Negative Numbers Factors, Multiples, Primes, Square and Triangular Numbers	Writing functions, expressions and formulae Simplifying expressions Substitution Rounding decimals Converting units of length, mass and capacity Reading scales and coordinates Calculating with decimals Area and Perimeter of 2D shapes	Comparing, simplifying and calculating with fractions Converting fractions, decimals and percentages Finding percentages of amounts Calculating probabilities	Direct proportion Writing, simplifying and using ratios Using ratio with measures Using fractions and percentages as proportions	Estimating, measuring accurately and drawing accurately lines and angles Drawing triangles accurately Calculating angles on a line, around a point, vertically opposite, in a triangle and in a quadrilateral Continuing patterns and sequences Plotting straight line graphs Identifying simple straight line graphs nth term of a linear sequence and the link to straight line graphs	Definitions of similarity and congruence Symmetry of shapes Reflection, Rotation, Enlargement and Translations of shapes Combined transformations
Assessments	Baseline Assessment in first week Test at the end of units 1 and 2	End of term assessment to include units 3 and 4		Test at the end of units 5 , 6 and 7		End of year assessment

Year 8	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Content / topics	Number Skills Area and Volume	Algebra: Expressions and Equations Real-Life Graphs	Decimals and ratio Lines and angles	Calculating with Fractions	Straight line graphs Percentages, decimals and fractions	Statistics: graphs and charts Number calculations
Skills	Basic Operations Negative numbers Powers and Roots Substitution into Formulae Multiples, Factors, Primes Areas of Triangles,	Algebraic Powers Writing and using expressions with brackets Factorising expressions Solving basic equations Drawing and interpreting conversion graphs, distance-time graphs and line graphs Using graphs to make predictions	Ordering and rounding decimals Calculating with decimals Ratio and proportion with decimals Using ratios Identifying quadrilaterals Angles in parallel lines Interior and Exterior Angles of a Polygon	Converting mixed numbers and improper fractions Basic operations with fractions and mixed numbers Converting fractions to decimals Reciprocals	Using direct proportion with graphs Calculating gradients Writing the equation of a straight line Converting Fractions, Decimals and Percentages Finding one number as a percentage of another Percentage increase and decrease non-calculator method Percentage increase and decrease using a multiplier Unitary method for solving percentage problems	Planning a survey and collecting data Pie charts Stem and Leaf diagrams Averages and range Scatter graphs Misleading graphs Basic operations Calculating with negative numbers Squares, Cubes and Roots Converting recurring decimals to fractions
Assessments		End of term assessment to include units 3 and 4	Test at the end of every unit	Test at the end of units 5 , 6 and 7		End of year assessment

Year 9 Foundation	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Content / topics	Number skills	Algebraic skills	Graphs, Tables and Charts Fractions and Percentages	Algebra: Equations, Inequalities and Sequences	Angles Averages and Range	Perimeter, Area and Volume
Skills	Calculations with negative numbers Decimal place value Rounding numbers to decimal places and significant figures Factors, Multiples, Primes, Squares, Cubes, Roots, Prime Factor Decomposition Index Notation	Writing and simplifying expressions Substitution into expressions and formulae Expanding single brackets Factorising expressions	Using frequency tables and two-way tables Interpret and compare data in bar charts and line graphs Draw and interpret time series Draw and interpret stem and leaf diagrams, pie charts and scatter graphs Use a line of best fit Basic operations with fractions and mixed numbers Find fraction of a quantity Convert fractions, decimals and percentages Calculate with percentages	Solve equations including with brackets and the unknown on both sides Interpret and solve inequalities Represent inequalities on a number line Use formulae Change the subject of a formula Continue linear and non-linear sequences Find the nth term of a linear sequence	Properties of quadrilaterals Calculate angles in parallel lines, triangles, quadrilaterals Find interior and exterior angles of polygons Use equations to solve angle problems Calculate and interpret averages and range including from frequency tables Understand sampling including stratified	Calculate perimeter and area of shapes including compound Find area of a trapezium Convert units of area and volume Find volume and surface area of prisms
Assessments	Test at the end of the half term	Test at the end of the half term	Exams during half term	Test at the end of the half term	Test at the end of the half term	

Year 10 Foundation	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Content / topics	Transformations Graphs both algebraic and real context	Ratio and Proportion Solve problems in right angled triangles	Probability Multiplicative Reasoning	Plans and elevations of objects Construction, Loci and Bearings	Solve quadratic equations and plot quadratic graphs 3-d Objects Fractions and Reciprocals	Indices and Standard Form Similarity and Congruence
Skills	Plot coordinates and calculate midpoints Draw linear graph, find gradient and equation of a line Interpret real-life graphs and distance-time graphs Translate, reflect, rotate and enlarge a shape Describe transformations	Writing and using ratios Using and interpreting proportion Use unitary method Use direct proportion on a graph Solve direct and inverse proportion problems Pythagoras' Theorem Trigonometry	Calculate probability of one and two events Two way tables Venn diagrams Tree diagrams Calculate percentage profit/loss Compound interest Compound measure (Speed/Distance/Time; Force/Pressure/Area; Density/Mass/Volume)	Draw plans and elevations of 3D shapes Accurately draw triangles Construct accurately using rulers and compasses Use loci to identify regions	Solve quadratic equations Plot quadratic graphs Find the volume of objects such as cylinders, cones, spheres	Use the rules of indices Work with numbers expressed in standard form Identify similar shapes and solve problems Prove congruency
Assessments	Test at the end of the half term	Test at the end of the half term		Test at the end of the half term		Exams during this half term

Year 11 - Foundation	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Content / topics	Vectors Rearranging Equations					
Skills	Graphs of complex functions Revision based on analysis on topics needed from Baseline Assessment 1	Revision based on analysis on topics needed from Assessment 2	Revision based on analysis on topics needed from Mock 1	Revision based on analysis on topics needed from Mock 2	Revision based on analysis	
Assessments	Assessment 2 at the end of the half term	Mock 1 completed during half term		Mock 2 completed at the start of the half term		

YEAR 9:	YEAR 10:	YEAR 11:
Exam board, Qualification title and Code: Edexcel 9-1 1MA1 Linear **Link to specification:** http://qualifications.pearson.com/en/qualifications/edexcel-gcses/mathematics-2015.html **Revision guides recommended (Title, Author & ISBN):** GCSE Maths Edexcel Revision Guide, CGP Higher ISBN: 978 1 78294 404 1; Foundation ISBN: 978 1 78294 400 3 **Tiers of entry:** Higher/Foundation **When tiers will be decided:** Y11 Spring Half Term 2 **Controlled assessment Y/N:** No **When will controlled assessment be completed?** Not applicable **Number of exams including titles, weighting, year sat and exam series:** Three equally weighted papers to be taken at the end of Y11 Paper 1 - Non-calculator; Papers 2 and 3 - calculator	**Exam board, Qualification title and Code:** Edexcel 9-1 1MA1 Linear **Link to specification:** http://qualifications.pearson.com/en/qualifications/edexcel-gcses/mathematics-2015.html **Revision guides recommended (Title, Author & ISBN):** GCSE Maths Edexcel Revision Guide, CGP Higher ISBN: 978 1 78294 404 1; Foundation ISBN: 978 1 78294 400 3 **Tiers of entry:** Higher/Foundation **When tiers will be decided:** Y11 Spring Half Term 2 **Controlled assessment Y/N:** No **When will controlled assessment be completed?** Not applicable **Number of exams including titles, weighting, year sat and exam series:** Three equally weighted papers to be taken at the end of Y11 Paper 1 - Non-calculator; Papers 2 and 3 - calculator	**Exam board, Qualification title and Code:** Edexcel 9-1 1MA1 Linear **Link to specification:** http://qualifications.pearson.com/en/qualifications/edexcel-gcses/mathematics-2015.html **Revision guides recommended (Title, Author & ISBN):** GCSE Maths Edexcel Revision Guide, CGP Higher ISBN: 978 1 78294 404 1; Foundation ISBN: 978 1 78294 400 3 **Tiers of entry:** Higher/Foundation **When tiers will be decided:** Y11 Spring Half Term 2 **Controlled assessment Y/N:** No **When will controlled assessment be completed?** Not applicable **Number of exams including titles, weighting, year sat and exam series:** Three equally weighted papers to be taken at the end of Y11 Paper 1 - Non-calculator; Papers 2 and 3 - calculator