Portchester Community School Mathematics Programme of Study 2020-21

Year	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
7	Number and place value The four operations Multiples, factors and primes, HCF, LCM BIDMAS	Fractions Percentages Use of a calculator Expressions, formulae and linear equations Cost of Christmas	Measures 2D and 3D Shapes Area Probability Design a Farm	Sequences Angle facts Constructions of shapes Design a Sports Field	Indices and roots Co-ordinates Linear functions 3D Shapes Volume of a cuboid	Transformations Average child Ratio
8	The four operations including place value Multiples, factors, powers, primes, BIDMAS Fractions	Percentages Ratio Expressions and formulae Use of a Calculator	Perimeter, Area and Volume Solving equations and inequalities	Sequences Angle Facts Constructions Bearings and Scale	Graphs Probability Plans and Elevations	Transformations Statistics
9	Number Review Algebra Review Sequences	Percentages (including growth and decay) Ratio and Proportion Area and Perimeter	Coordinates and Linear Graphs Equations Averages Scatter graphs	Angles Pythagoras' Theorem Trigonometry introduction	Constructions and Loci Scale Drawing Bearings Transformations	Statistics Probability 2D representation of 3D shapes including plans and elevations
10	**Foundation:** Number Review (1) Rounding Measures Area and Perimeter Sequences	**Foundation:** Number Review (2) Angles Properties of Polygons Algebra Review Graphs	**Foundation:** Fractions, Decimals and Percentages Calculating with Percentages inc Growth and Decay Volume	**Foundation:** Scatter Graphs Transformations Linear Equations Inequalities Scale Drawing and Bearings	**Foundation:** Indices Pythagoras' Theorem Real Life Graphs	**Foundation:** Statistical Measures Simultaneous Equations Revision

10	**Higher:** Surds Rounding Factors and Multiples incl Product Rule for Counting HCF LCM Algebra Review Fractions including Algebraic Fractions	**Higher:** Percentages Rules of Indices Rearranging Formulae Coordinates and Linear Graphs Quadratic Equations and Graphs	**Higher:** Angles and Polygons Area and Perimeter Volume 2D representation of 3D shapes Linear Equations Simultaneous Equations	**Higher:** Ratio and Proportion Congruence and Similarity Inequalities Probability	**Higher:** Pythagoras' Theorem and Trigonometry Scale Drawing and Bearings Transformations	**Higher:** Collecting and Representing Data Statistical Measures Circle Theorems
11	**Foundation:** Basic Number Review Indices Standard Index Form Probability recap Quadratic Graphs Circumference and Area of a Circle	**Foundation:** 2D and 3D shapes Algebra and Graphs Direct and inverse Proportion Real Life Graphs Revision for Mocks	**Foundation:** Congruence and Similarity Trigonometry Vectors Simultaneous Equations	**Foundation:** Revision	**Foundation:** Revision	**Foundation:** Revision
11	**Higher:** Surds Circle Theorems Functions Transformation of Functions Identities and proof	**Higher:** Vectors Iteration Trigonometry MMMR Exponential Growth and Decay	**Higher:** Real Life Graphs Gradients and Rates of Change Area under a Curve Sketching Graphs	**Higher: Revision** Circles Review Inc Equation of a Circle Statistics Review Quadratic Equations Quadratic Sequences Rearranging Formulae	**Higher: Revision** Probability (inc Venn Diagrams) Direct and Inverse Proportion	**Higher:** Revision

GCSE Mathematics Specification