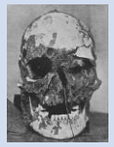
Park Community School Key Stage 3 Curriculum map

Intention: 1. logical reasoning and problem solving 2. fluency 3. functionality. Mastery approach whereby all students can be successful at mathematics. Use of bar models (BM), ratio tables (RT) and double number lines (DN) central strategies to building fluency and problem solving across a range of topics.

Impact Baseline: SAT arithmetic scores + CATs **Impact Formative:** Exit tickets + Low stakes progress quizzes + Fortnightly MCQ's **Impact summative:** Termly progress test + EOY test **Homework: :** Online platform for retrieval practice exercises and interleaving

	Year 7	Year 8	Year 9
Autumn	**Algebraic thinking -** Sequences **Algebraic thinking -** Understand and use algebraic notation **Algebraic thinking –** Equality and equivalence (BM)  **Place value and Proportion –** Place value and ordering integers and decimals (DN) **Place value and Proportion –** Fraction, decimal and percentage equivalence (RT)	**Reasoning with number –** Prime numbers and proof **Reasoning with number** - Sets and probability **Proportional reasoning –** Ratio and scale (RT) **Proportional reasoning –** Multiplicative change (RT) **Proportional reasoning –** Multiplying and dividing fractions (BM) **Representations –** Working on the Cartesian plane **Representations –** Representing data **Representations –** Tables and probability 	**Reasoning with number –** Numbers **Reasoning with algebra –** Straight line graphs (RT) **Reasoning with algebra –** Forming and solving equations of more than 2 steps (BM) **Reasoning with algebra –** Testing conjectures **Constructing in 2 and 3 dimensions –** Three dimensional shapes **Constructing in 2 and 3 dimensions –** Constructions and congruency 
Spring	**Reasoning with number –** Developing number sense **Application of number –** Solving problems with addition and subtraction (BM)  **Application of number** - Solving problems with multiplication and division (BM, RT) **Application of numbers –** Fractions and percentages of amounts (BM, RT)) **Directed number –** Operations and equations with directed number **Fractional thinking –** Addition and subtraction of fractions (BM)	**Algebraic techniques –** Brackets, equations and inequalities **Algebraic techniques –** Sequences **Algebraic techniques –** Indices **Developing number –** Fractions and percentages (RT) **Developing number –** Standard index form **Developing number –** Number sense (RT) 	**Reasoning with number –** Using percentages (RT, BM) **Reasoning with number –** Mathematics and money (RT) **Reasoning with geometry –** Rotation and translation and reflection **Reasoning with geometry –** Pythagoras theorem 
Summer	**Lines and angles –** Constructing, measuring and using geometric notation (RT) **Lines and angles –** Developing geometric reasoning Portsmouth Water	**Developing geometry –** Angles in parallel lines and polygons **Developing geometry -** Area of trapezia and circles **Developing geometry –** Lines symmetry and reflection **Reasoning with data** - The data handling cycle **Reasoning with data –** Measures of location 	**Reasoning with proportion –** Enlargement and similarity and using maps (RT) **Reasoning with proportion –** Solving ratio and proportion problems **Reasoning with proportion –** Rates (RT) **Representations** - Probability  **Algebraic representation –** Quadratic and other graphs

Park Community School Key Stage 4 Curriculum map

	Year 10 Foundation	Year 10 Higher	Year 11 Foundation	Year 11 Higher
Intention: 1. logical reasoning and problem solving 2. fluency 3. functionality. Mastery approach whereby all students can be successful at mathematics. Use of bar models (BM), ratio tables (RT) and double number lines (DN) central strategies to building fluency and problem solving across a range of topics. **Starters:** Retrieval practice based on QLA from most recent mock exams **Homework:** Online platform for retrieval practice exercises and interleaving				
Impact Formative: Exit tickets + Fortnightly Mini-mocks [cumulative 1st 40 marks] **Impact summative =** Termly test + EOY tests in Year 10 Year 11 2 sets of full mocks. Pin-point personalised learning booklets post every mock throughout KS4				
Autumn	**Getting ready for Key stage 4** **Similarity** – Congruence, similarity and enlargement **Similarity** – Trigonometry **Developing algebra** – Representing solutions of equations and inequalities	**Getting ready for Key stage 4** **Similarity** – Congruence, similarity and enlargement **Similarity** – Trigonometry **Developing algebra** – Representing solutions of equations and inequalities **Developing algebra** - Simultaneous equations	**Graphs** – Gradients and lines **Graphs** – Nonlinear graphs **Graphs** - Using graphs **Algebra** – Expanding and factorizing **Algebra** – Changing the subject	**Graphs** – Gradients and lines **Graphs** – Nonlinear graphs **Graphs** - Using graphs **Algebra** – Expanding and factorizing **Algebra** – Changing the subject **Algebra** - Functions
Spring	**Geometry** – Angles and Bearings **Geometry** – Working with circles **Proportions and proportional change** – Ratios and fractions **Proportions and proportional change** – Percentages and interest **Proportions and proportional change** – Probability	**Geometry** – Angles and Bearings **Geometry** – Working with circles **Geometry** – Vectors **Proportions and proportional change** – Ratios and fractions **Proportions and proportional change** – Percentages and interest **Proportions and proportional change** - Probability	**Reasoning** – Multiplicative **Reasoning** – Geometric **Reasoning** – Algebraic **Communication** – Transforming **Communication** – Listing and describing **Communication** – Show that **January mocks** • How to revise • Key exam topics • Green penning of exam papers • Personalised maths catch up	
Summer	**Delving into data** – Collecting, representing and interpreting data **Using number** – Non-calculator methods **Using number** – Types of number and sequences **Using number** – Indices and roots **End of year mock exams:** • How to revise • Retrieval practice lessons • Green pen follow up of exam papers • PinPoint learning personalized booklets	**Delving into data** – Collecting, representing and interpreting data **Using number** – Non-calculator methods **Using number** – Types of number and sequences **Using number** – Indices and roots	**GCSE "Run in"** Topics chosen for study based on QLA analysis of January mock **GCSE exam season** Walking talking mocks and half term study clubs delivered alongside individualised GCSE "Home run" lessons. Use of personalised PinPoint learning booklets.