Park Community School Key Stage 3 Curriculum map

	Year 7	Year 8	Year 9

Intention: 1. logical reasoning and problem solving 2. fluency 3. functionality. **Starters:** TimesTable Rockstars + Numeracy Ninjas   **Homework:** Hegarty Maths

Impact Baseline: SAT arithmetic scores + GL baseline + SEN numeracy tests + CATs   **Impact Formative:** Exit tickets + Low stakes progress quiz   **Impact summative:** Termly MCQ + end of year test

Autumn 1

Year 7 — Taking flight:
- Number lines and sequencing
- Rounding dp and sig fig
- Perimeter of compound shapes
- Collect, record and present data
- Area of compound shapes

GL assessment follow up, emphasis on number skills

Year 8 — Number:
- Order fractions, decimals and percentages
- Prime factorization
- HCF, LCM, Rounding, sig figs and estimation
- Using a calculator
- Inc. Standard form (conversion)

Year 9 — Number:
- Use prime factorisation to calculate HCF and LCM of 2 or more numbers
- Use surd notation
- Use the product rule for counting

Autumn 2

Year 7 — Algebra:
- Substitution
- Form algebraic expressions and equations
- Solve equations 1 and 2 step
- Forming expressions and equations
- Sequences (continuing and nth term)

Year 8 — Algebra:
- Generating a set of co-ordinates
- Drawing linear equations
- Calculating gradient of a straight-line graph

Year 9 — Algebra:
- Expand single and double brackets
- Factorise algebraic expressions
- Solve linear inequalities

Spring 1

Year 7 — Geometry and measures:
- Draw, measure and name acute and obtuse angles and shapes
- Properties of triangles and quadrilaterals Inc. use of algebra
- Angle reasoning
- Area of parallelograms and trapeziums
- Area of compound shapes

Year 8 — Geometry and measures:
- Drawing the net of a 2D shape
- Calculate surface area of a 3D shape
- Calculate volume of 3D shape
- Calculate circumference and area of circles

Year 9 — Statistics:
- Draw and interpret composite and comparative bar charts
- Plot and interpret time series graphs
- Plot and interpret scatter graphs
- Draw and interpret histograms

GCSE statistics 1, 2 and 3

Spring 2

Year 7 — Ratio and proportionality:
- Add and subtract improper fractions
- Fraction of a quantity
- Convert between fractions, decimals and percentages
- Percentage of a quantity

Year 8 — Ratio and proportionality:
- Expressing a quantity as a percentage of another
- Percentage increase and decrease
- Sharing a quantity into a given ratio
- Compound measures Speed, distance, time, DMV, PMF

Year 9 — Ratio and proportionality:
- Understand ratio as a fraction
- Repeat percentage change with links to finance
- Reverse percentages
- Pythagoras' theorem

Summer 1

Year 7 — Statistics:
- Discrete v's Continuous data
- Construct and interpret bar charts
- Construct and interpret pie charts
- Construct and interpret stem and leaf diagrams
- Interpret distance time graphs

Year 8 — Probability:
- Using a probability scale
- Construct sample space diagrams
- Construct two-way tables
- Complete a probability tree

Year 9 — Geometry and measures:
- Angles in parallel lines using co-interior angle rule
- Calculate interior and exterior angles of any regular polygon
- Solve problems involving regular and irregular polygons

Summer 2

Year 7 — Geometry and measures:
- Plans and elevations
- Bisect angles and lines
- Draw loci

- How to revise
- GL assessment follow-up

Year 8 — Binary and hexadecimal:
- Convert to and from binary
- Convert to and from hexadecimal
- Add and subtract binary numbers

- How to revise
- GL assessment follow up

Year 9 — Finance:
- Saving money
- Paying tax
- Applying for loans and mortgages

- How to revise
- End of KS3 exam follow-up

	Year 10 Foundation	Year 10 Higher	Year 11 Foundation	Year 11 Higher
Intention: 1. logical reasoning and problem solving 2. fluency 3. functionality in real-life [cross curricular]contexts **Starters:** Retrieval practice based on QLA from most recent mock exams **Homework:** Hegarty Maths + GCSE Pod for retrieval practice exercises				
Impact Formative: Exit tickets + Fortnightly Mini-rolls [cumulative 1st 40 marks] **Impact summative =** Mock 1 Oct [year 10 tiering papers, year 11 2 papers] Mock 2 January 3 papers, Mock 3 March [year 11 3 papers] Pin-point personalised learning booklets post every mock from end of year 9 onwards				
Autumn 1	**Algebra:** • Midpoint of line segment • y=mx+c • Parallel and perpendicular lines • Rates of change	**Algebra:** • Simultaneous equations • Graph quadratics • Solve quadratics • Complete the square **Statistics 4 and 5**	**Number:** • Index laws • Add and subtract standard form • Multiply and divide standard form The mass of the smallest known virus is 9.5 x 10^{-21}	**Geometry and measures:** • Vector arithmetic • Solve problems involving vectors
Autumn 2	**Ratio and proportionality:** • Ratio problems with decimals • Direct proportion • Pythagoras • Trigonometry	**Ratio and proportionality:** • Percentage profit and loss • Growth and decay problems • Direct and indirect proportionality **Statistics 6 and 7**	**Geometry and measures:** • Recognize congruent shapes • Solve similarity problems • Add and subtract vectors • Calculate multiples of vectors	**Algebra:** • Calculate gradient of a tangent to a curve • Calculate area under a curve
Spring 1	**Geometry and measures:** • Area and perimeter of sectors and arcs • Volume of pyramids • Volume of spheres	**Geometry and measures:** • Solve problems using congruency • Solve problems using similarity **Statistics 8**	**January mocks** • How to revise • Key exam topics • Green penning of exam papers • Personalised Hegarty maths catch up	
Spring 2	**Ratio and proportionality:** • Percentage profit and loss • Growth and decay problems • Compound measures	**Geometry and measures:** • Trigonometric graphs • 3D Pythagoras • 3D trigonometry	**GCSE "Run in"** Topics chosen for study based on QLA analysis of January mock	
Summer 1	**Algebra:** • Plot quadratic graphs • Factorise quadratic graphs • Solve quadratic equations	**Algebra:** • Graph inequalities • Graph and solve cubic functions • Circle theorems • Iterative process	**GCSE exam season** Walking talking mocks and half term study clubs delivered alongside individualised GCSE "Run in" lessons. Use of personalised PinPoint learning booklets.	
Summer 2	**End of year mock exams:** • How to revise • Retrieval practice lessons • Green pen follow up of exam papers • PinPoint learning personalized booklets			