Elements Academy Building Block 6

ELEMENTS ACADEMY
Nurturing inclusive learning communities

Mathematics

	Higher Content
	Foundation Content

End of year exams!

Revision

Examination

Summer 1 + 2

Reasoning
Multiplicative
Geometric
Algebraic

Geometry
Geometry Revision
Vector Geometry
Ratio and Vectors
Similarity and Vectors

Algebra 3
Consolidation of reasoning problems.
Using Algebra to solve problems in other topic areas
Transformation of graphs
Equations of circles
Algebraic proof

Spring 1 + 2

Algebra 2
Exploring Algebra- Rearranging formula
Simultaneous equations- graphically
Simultaneous equations
Rearranging complex equations
Further algebraic fractions – with factorising
Solving simultaneous equations with quadratics

Autumn 1 + 2

BB 6b

Proportional reasoning
Direct and Inverse Proportions
Forming and solving equations and finding constant of proportionality
Understanding Proportional graphs

Geometry 3
Review of Angles
Introduction to bearings
Angles in parallel lines and polygons
Circles, area, circumference and vocabulary.
Circle theorems,
Angles within other topics
Volume of Sphere, Cone Frutstrum

Summer 1 + 2

Statistics
Review Data handling cycle
Collecting Data
Representing data
Interpreting Data
3Draw and interpret; Histograms
Cumulative Frequency
Box Plots
Frequency Diagrams
Inter Quartile range

Geometry 2
Solving triangles review of Pythagoras
Introduction to Trigonometry in right angled triangles
3D Pyathgoras and Trigonometry
Cosine Rule
Sine Rule

Spring 1 + 2

Geometry 1
Symmetry and Transformations
Vectors
Constructions, Loci
Similarity and Congruency
Transformations – including enlargement with negative and fractional scale factors
Combined transformations
3D similarity and congruency and effects of scale factors on area/ volume.

Algebra 1
Forming and solving equations
Investigating Quadratic functions
Expanding single and double brackets
Factorising and Solving equations
Solving and rearranging formula and expressions including algebraic fractions
Solving quadratics- factorising, graph, formulae, completing the square

Proportional reasoning
Real life graphs
Percentages and changes from graphs and tables
Rates of change
Area under a graph

Number 2
HCF LCM
Venn Diagrams
Product of Primes

Standard Form
Calculating with standard form
Representing Inequalities

Number 1
Rounding and Estimation- Including
Significant figures
Money and best buys
Percentage and Fraction Problems
Frequency Trees

Maximum and minimum problems
Limits of accuracy
Surds
Reverse Percentages
Compound Interest

Autumn 1 + 2

BB 6a

welcome