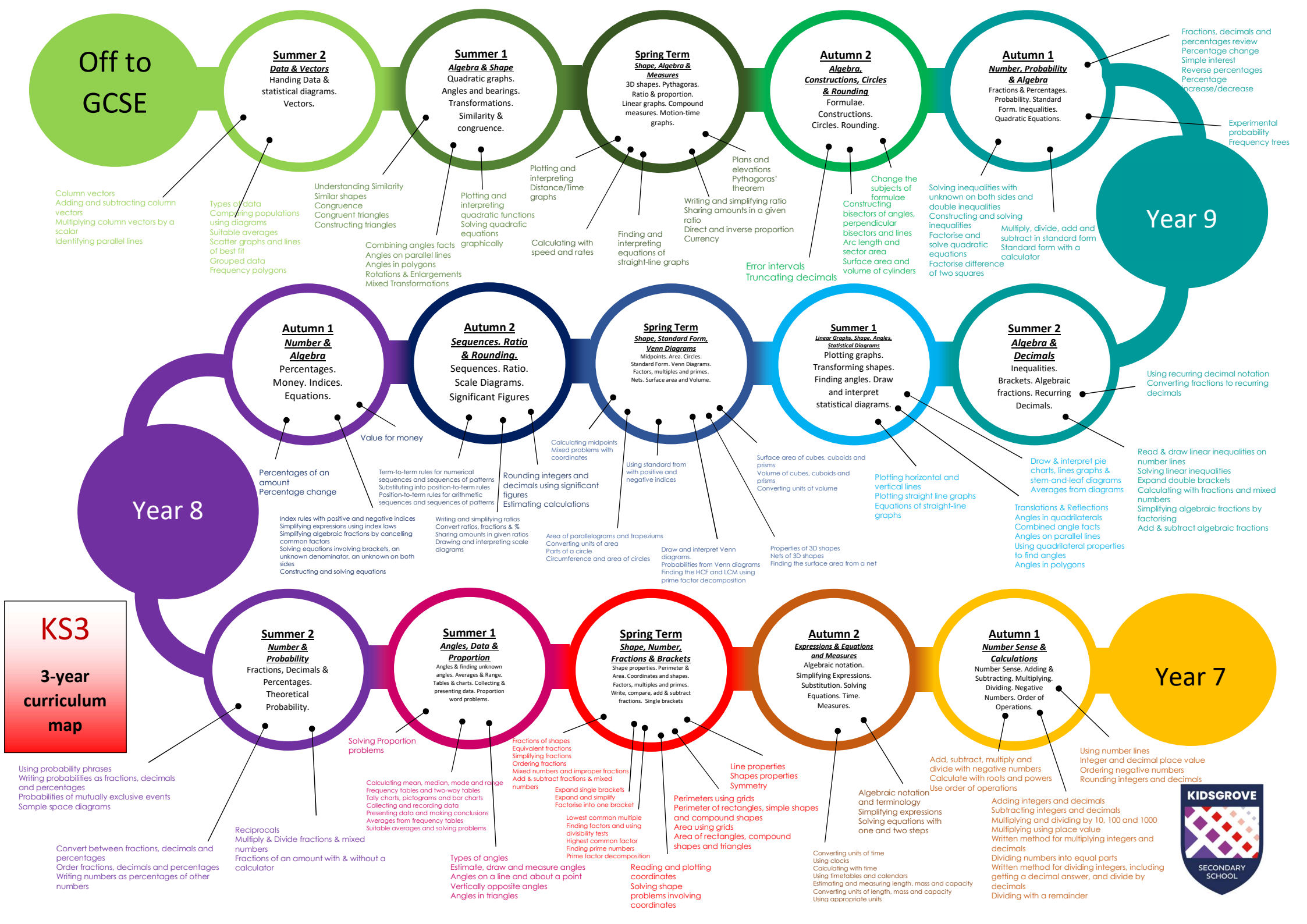
Off to GCSE
Summer 2
Data & Vectors
Handing Data & statistical diagrams. Vectors.
Column vectors
Adding and subtracting column vectors
Multiplying column vectors by a scalar
Identifying parallel lines
Types of data
Comparing populations using diagrams
Suitable averages
Scatter graphs and lines of best fit
Grouped data
Frequency polygons
Summer 1
Algebra & Shape
Quadratic graphs. Angles and bearings. Transformations. Similarity & congruence.
Understanding Similarity
Similar shapes
Congruence
Congruent triangles
Constructing triangles
Combining angles facts
Angles on parallel lines
Angles in polygons
Rotations & Enlargements
Mixed Transformations
Plotting and interpreting quadratic functions
Solving quadratic equations graphically
Spring Term
Shape, Algebra & Measures
3D shapes. Pythagoras. Ratio & proportion. Linear graphs. Compound measures. Motion-time graphs.
Plotting and interpreting Distance/Time graphs
Calculating with speed and rates
Finding and interpreting equations of straight-line graphs
Writing and simplifying ratio
Sharing amounts in a given ratio
Direct and inverse proportion
Currency
Plans and elevations
Pythagoras' theorem
Autumn 2
Algebra, Constructions, Circles & Rounding
Formulae. Constructions. Circles. Rounding.
Error intervals
Truncating decimals
Constructing bisectors of angles, perpendicular bisectors and lines
Arc length and sector area
Surface area and volume of cylinders
Change the subjects of formulae
Autumn 1
Number, Probability & Algebra
Fractions & Percentages. Probability. Standard Form. Inequalities. Quadratic Equations.
Solving inequalities with unknown on both sides and double inequalities
Constructing and solving inequalities
Factorise and solve quadratic equations
Factorise difference of two squares
Multiply, divide, add and subtract in standard form
Standard form with a calculator
Fractions, decimals and percentages review
Percentage change
Simple interest
Reverse percentages
Percentage increase/decrease
Experimental probability
Frequency trees
Year 9
Autumn 1
Number & Algebra
Percentages. Money. Indices. Equations.
Value for money
Percentages of an amount
Percentage change
Index rules with positive and negative indices
Simplifying expressions using index laws
Simplifying algebraic fractions by cancelling common factors
Solving equations involving brackets, an unknown denominator, an unknown on both sides
Constructing and solving equations
Autumn 2
Sequences. Ratio & Rounding.
Sequences. Ratio. Scale Diagrams. Significant Figures
Term-to-term rules for numerical sequences and sequences of patterns
Substituting into position-to-term rules
Position-to-term rules for arithmetic sequences and sequences of patterns
Rounding integers and decimals using significant figures
Estimating calculations
Writing and simplifying ratios
Convert ratios, fractions & %
Sharing amounts in given ratios
Drawing and interpreting scale diagrams
Spring Term
Shape, Standard Form, Venn Diagrams
Midpoints. Area. Circles. Standard Form. Venn Diagrams. Factors, multiples and primes. Nets. Surface area and Volume.
Calculating midpoints
Mixed problems with coordinates
Using standard from with positive and negative indices
Area of parallelograms and trapeziums
Converting units of area
Parts of a circle
Circumference and area of circles
Draw and interpret Venn diagrams.
Probabilities from Venn diagrams
Finding the HCF and LCM using prime factor decomposition
Properties of 3D shapes
Nets of 3D shapes
Finding the surface area from a net
Summer 1
Linear Graphs. Shape. Angles, Statistical Diagrams
Plotting graphs. Transforming shapes. Finding angles. Draw and interpret statistical diagrams.
Surface area of cubes, cuboids and prisms
Volume of cubes, cuboids and prisms
Converting units of volume
Plotting horizontal and vertical lines
Plotting straight line graphs
Equations of straight-line graphs
Draw & interpret pie charts, lines graphs & stem-and-leaf diagrams
Averages from diagrams
Translations & Reflections
Angles in quadrilaterals
Combined angle facts
Angles on parallel lines
Using quadrilateral properties to find angles
Angles in polygons
Summer 2
Algebra & Decimals
Inequalities. Brackets. Algebraic fractions. Recurring Decimals.
Using recurring decimal notation
Converting fractions to recurring decimals
Read & draw linear inequalities on number lines
Solving linear inequalities
Expand double brackets
Calculating with fractions and mixed numbers
Simplifying algebraic fractions by factorising
Add & subtract algebraic fractions
Year 8
KS3
3-year curriculum map
Summer 2
Number & Probability
Fractions, Decimals & Percentages. Theoretical Probability.
Using probability phrases
Writing probabilities as fractions, decimals and percentages
Probabilities of mutually exclusive events
Sample space diagrams
Convert between fractions, decimals and percentages
Order fractions, decimals and percentages
Writing numbers as percentages of other numbers
Reciprocals
Multiply & Divide fractions & mixed numbers
Fractions of an amount with & without a calculator
Summer 1
Angles, Data & Proportion
Angles & finding unknown angles. Averages & Range. Tables & charts. Collecting & presenting data. Proportion word problems.
Solving Proportion problems
Calculating mean, median, mode and range
Frequency tables and two-way tables
Tally charts, pictograms and bar charts
Collecting and recording data
Presenting data and making conclusions
Averages from frequency tables
Suitable averages and solving problems
Types of angles
Estimate, draw and measure angles
Angles on a line and about a point
Vertically opposite angles
Angles in triangles
Spring Term
Shape, Number, Fractions & Brackets
Shape properties. Perimeter & Area. Coordinates and shapes. Factors, multiples and primes. Write, compare, add & subtract fractions. Single brackets
Fractions of shapes
Equivalent fractions
Simplifying fractions
Ordering fractions
Mixed numbers and improper fractions
Add & subtract fractions & mixed numbers
Expand single brackets
Expand and simplify
Factorise into one bracket
Lowest common multiple
Finding factors and using divisibility tests
Highest common factor
Finding prime numbers
Prime factor decomposition
Reading and plotting coordinates
Solving shape problems involving coordinates
Line properties
Shapes properties
Symmetry
Perimeters using grids
Perimeter of rectangles, simple shapes and compound shapes
Area using grids
Area of rectangles, compound shapes and triangles
Autumn 2
Expressions & Equations and Measures
Algebraic notation. Simplifying Expressions. Substitution. Solving Equations. Time. Measures.
Converting units of time
Using clocks
Calculating with time
Using timetables and calendars
Estimating and measuring length, mass and capacity
Converting units of length, mass and capacity
Using appropriate units
Algebraic notation and terminology
Simplifying expressions
Solving equations with one and two steps
Autumn 1
Number Sense & Calculations
Number Sense. Adding & Subtracting. Multiplying. Dividing. Negative Numbers. Order of Operations.
Add, subtract, multiply and divide with negative numbers
Calculate with roots and powers
Use order of operations
Adding integers and decimals
Subtracting integers and decimals
Multiplying and dividing by 10, 100 and 1000
Multiplying using place value
Written method for multiplying integers and decimals
Dividing numbers into equal parts
Written method for dividing integers, including getting a decimal answer, and divide by decimals
Dividing with a remainder
Using number lines
Integer and decimal place value
Ordering negative numbers
Rounding integers and decimals
Year 7
KIDSGROVE SECONDARY SCHOOL