Subject: Mathematics   2022-2023

	Autumn Term 1	Autumn Term 1	Spring Term 2	Spring Term 2	Summer Term 3	Summer Term 3
7	Week 1 &2 Decimals, BIDMAS and powers Week 3 Drawing and Calculating Angles Week 4 Intro to Probability Week 5 Fractions Week 6- 8 Introduction to Algebra Review and revision	Week 1 Pie Charts Week 2 Area of a triangle and compound shapes Week 3 Directed Numbers Week 4 Expanding Brackets Week 5 Substitution Week 6 Coordinates Week 7 Translation Review and revision	Week 1 Symmetry Week 2 Averages Week 3 Rounding, Prime and HCF/LCM Week 4 Straight Line Graphs Week 5 Quadrilaterals properties / Properties of 2D shapes Week 6&7 Solving Equations Review and revision	Week 1 Data Collection Week 2 Percentages Week 3 Reflection and rotation Week 4 Travel Graphs and Speed Calculations Week 5 Sequences Week 6 Constructions Review and revision	Week 1 Probability and Sample Spaces Week 2 Area and Perimeter of Circles Week 3 Area of Other Shapes Week 4 & 5 Solve Harder Equations Week 6 Fractions applications Review and revision	Week 1 Ratio Week 2 Conversion of Units Week 3 Volume and Surface Area of Cuboids Week 4 & 5 Writing expressions Week 6 Formulae Exams & revision Week 7 Loci
8	Week 1 Scale Drawings and Bearings Week 2 Negative numbers and substitution Week 3 Sequences Week 4 & 5 Brackets and solving equations Week 6 Decimals and Fractions Week 7 Drawing Views Review and revision	Week 1 & 2 Pythagoras Week 3 Surface Area of 3D shapes Week 4 Volume of 3D shapes Week 5 Stem and leaf Week 6 Scatter graphs Week 7 Transformations and enlargement Review and revision	Week 1 Plotting Quadratic graphs Week 2 Expanding double brackets Week 3 Factorising Week 4 Percentages Week 5 & 6 Averages for Frequency Tables Week 7 Angles in a polygon Review and revision	Week 1&2 y=mx+c Algebraically Week 3 Solving and Graphing Inequalities Week 4 Compound measures Week 5 Probability of Two Events Week 6 Rounding to Significant Figures and estimating Review and revision	Week 1 & 2 Simultaneous Equations Week 3 Indices Week 4 Standard Form Week 5 Area/Perimeter of shapes involving Circles Week 6 Frequency Polygon Review and revision	Week 1& 2 Change Subject Week 3 & 4 Trigonometry Week Week 5 & 6 Direct and Inverse Proportion Exams & revision Week 7 Functional Skills

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9	**Basic number** – Operations place value, estimating **Factors & multiples** **Angles** – at a point, line and parallel **Scale diagrams and bearings** **Basic algebra review** – brackets, expressions, HCF **Basic fractions** Review and revision	**Basic decimals** - operations, place value, recurring decimals **Coordinates and linear graphs** **Rounding** – rounding, error interval, bounds **Collecting and representing data** **Sequences** – Fibonacci, quadratic, geometric, nth term Exams & revision	**Basic percentages** – percentage change, calculation **Perimeter and area** – properties of shapes, area of polygons, perimeter of 2D shapes **Real life graphs** – plot and interpret graph, gradient of line graph, rate of change. Review and revision	**Circumference and area** – formulae, SA of prisms, arc, angle and sectors of circle **Ratio and proportion** – simplest form, best buy, fractions, and linear functions **Equations** -substitution, solve linear equation Review and revision	**Basic probability** – tables and frequency trees, ∑=1, mutually exclusive events **Scatter graphs** – correlation, line of best fit, predict, interpolate, extrapolate **Standard form** – congruent and similar, reflection, translation, rotation, fractional and negative scale factor. Review and revision	**Transformations** - congruent and similar, reflection, translation, rotation, fractional and negative scale factor. Exams & revision **Construction & loci** – ruler and compass construction, bisectors **2D representations of 3D shapes**
10	**Review and revision** **Calculating with percentages** – percentage change, interest **Measures –** limits of accuracy, standard units, compound unit **Surds –** exact calculations, simplify, geometric progression Review and revision	**Statistical measures –** mean, median, mode, spread, population and samples **Indices –** integer powers, real roots, estimate powers and roots **Properties of polygons** Exams & revision	**Number recap** – decimals, bounds, sequence, surds, indices **Congruence and similarity** – SSS, SAS, ASA, RHS, angle facts, length, area, and volume **Pythagoras theorem and basic trigonometry** - formula, SOHCAHTOA, exact trig value, trig ratios Review and revision	**Simultaneous equations** - linear, quadratic, algebraic and graphic, derive, solve and interpret **Probability** - expected f, theoretical probability, sample size, Venn, tree diagrams, conditional probability, + or x probability **Statistics recap –** histogram, cumulative f, plot and interpret boxplots Review and revision	**Algebra**: introduction to quadratics and rearranging formulae **Volume –** scale factor, formulae, exact value of π. Review and revision	**Algebra recap** – y=mx+c, parallel and perpendicular lines, graphic, algebraic, reciprocal, exponential, real life graphs **Sketching graphs** Linear & quadratic functions, cubic and reciprocal function Exams & revision **Linear and quadratic equations and their graphs** – derive and solve equations, factorising, **Geometry and measures recap –** congruent & similar, transformations, scale factors

11	Review and revision **Algebra:** further quadratics, rearranging formulae, factorise, simplify, change subject, equation and identity, proofs, inverse functions, composite functions **Trigonometry recap and extension –** Pythagoras in 2D and 3D shapes, trig ratios, exact trig values, angle facts **Growth and decay** Review and revision	**Equation of a circle** **Further equations and graphs** – derive and solve linear, quadratic equations (factorise, complete the square and formula), roots, intercepts, turning points, sketch and interpret graphs. **Direct and inverse proportion** – graphs and equations Mock exams & revision	**Inequalities –** linear and quadratic inequalities, number lines and graphs. **Vectors** – add, subtract, multiply, column and diagrams, proofs, and arguments **Further sketching graphs** – linear, quadratic, cubic, 1/x, kx, trig functions Review and revision	**Sine and cosine rules** - **Transforming functions** **Numerical methods** - iteration **Circle theorems** - Review and revision	Gradients and rate of change **Pre-calculus and area under a curve** **Algebraic fractions** Revision	Exams & revision
	Autumn Term 1	*Autumn Term 1*	*Spring Term 2*	*Spring Term 2*	*Summer Term 3*	*Summer Term 3*