The Brades Lodge

Long Term Planning for: Maths

Year 10	**Topic:** Similarity Congruence, similarity & enlargement Trigonometry	**Topic:** Developing algebra Representing solutions of equations & inequalities Simultaneous equations	**Topic:** Geometry Angles & bearings Working with circles Vectors	**Topic:** Proportions & proportional change Ratios & fractions Percentages & Interest Probability	**Topic:** Delving into data Collecting, representing & interpreting data Using number Non-calculator methods	**Topic:** Using number Types of number & sequences Indices & roots Expressions Manipulating expression
	Intent: Building on pupils experience of enlargement and similarity in previous years, this unit extends pupil's experiences and looks more formally at dealing with topics such as similar triangles. Trigonometry is introduced as a special case of similarity within right angled triangles.	**Intent:** Pupils will have covered both equations and inequalities at key stage 3 and this unit offers the opportunity to revisit and reinforce standard techniques and deepen their understanding.	**Intent:** As well as the formal introduction of bearings, this block provides a great opportunity to revisit other materials and make links across the mathematics curriculum. Pupils will have met vectors to describe translations during KS3.This will be revisited and used as the basis for looking more formally at vectors.	**Intent:** This unit builds on work on ratio and fractions, highlighting similarities and differences and links to other areas of mathematics including both algebra and geometry. understanding gained in KS3. Calculator methods are encouraged throughout and are essential for repeated percentage change/growth and decay problems.	**Intent:** This unit builds on KS3 work on the collection, representation and use of summary statistics to describe data. Much of the content is familiar, both from previous study within and beyond mathematics	**Intent:** This unit revises and builds on KS3 content for calculation. Mental methods and using number sense are to be encouraged alongside the formal methods for all four operations with integers, decimals and fractions.
	Implementation: In lessons using computers, calculators and written work**,** white boards and short tasks mainly teacher led. The use of ICT is to be encouraged to show and create different graphical diagrams.	**Implementation:** In lessons using computers, calculators and written work, white boards and short tasks mainly teacher led	**Implementation:** In lessons using computers, calculators and written work**,** white boards and short tasks mainly teacher led	**Implementation:** In lessons using computers, calculators and written work**,** white boards and short tasks mainly teacher led.	**Implementation:** In lessons using computers, calculators and written work**,** white boards and short tasks mainly teacher led .Cross curriculum links geography science and real life to be investigated.	**Implementation:** In lessons using computers, calculators and written work**,** white boards and short tasks mainly teacher led. A field trip to see how maths work outside of school.

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	Impact: The aim of this year is to prepare pupils for GCSE maths and pupils will be able to use formal methods and be comfortable with trigonometry.	**Impact:** The aim of this year is to prepare pupils for GCSE maths.	**Impact:** The aim of this year is to prepare pupils for GCSE maths.	**Impact:** The aim of this year is to prepare pupils for GCSE maths.	**Impact:** The aim of this year is to prepare pupils for GCSE maths.	**Impact:** The aim of this year is to prepare pupils for GCSE maths.

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Year 11	**Topic:** Gradients & Lines Non-Linear graphs Using graphs	**Topic:** Expanding and factorising Changing the subject Functions	**Topic:** Multiplicative Geometric Algebraic	**Topic:** Transforming & Constructing Listing & describing Show that	**Topic:** Revision	**Topic:** Revision
	Intent: Pupils to plot straight lines from a given equation. Pupils will look at quadratic, cube and reciprocal graphs. To revise conversion graphs and reflection in straight lines.	**Intent:** This unit reviews expanding and factorising before moving on to quadratics. Also looking at the rearrangement of familiar and unfamiliar formulae. Also we will revisit trigonometric functions.	**Intent:** This unit will look at developing multiplicative reasoning in a variety of contexts. A Consolidation of angles facts to solve geometric problems. To develop algebraic reasoning by looking at more complex situations.	**Intent:** This unit will explore all the transformations and constructions relating symmetry and properties of shapes. Revision and extend pupils. This is also to suit the needs of the class.	**Intent:** Revision	**Intent:** Revision
	Implementation: In lessons using computers, calculators and written work, white boards and short tasks mainly teacher led	**Implementation:** In lessons using computers, calculators and written work, white boards and short tasks mainly teacher led	**Implementation:** In lessons using computers, calculators and written work, white boards and short tasks mainly teacher led	**Implementation:** In lessons using computers, calculators and written work, white boards and short tasks mainly teacher led	**Implementation:** In lessons using computers, calculators and written work, white boards and short tasks mainly teacher led	**Implementation:** In lessons using computers, calculators and written work, white boards and short tasks mainly teacher led

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	Impact: This unit will build on the earlier study of straight line graphs. Also responding to the needs of the class in preparation of GCSE.	**Impact:** To respond to the needs of the class in preparation of GCSE.	**Impact:** To respond to the needs of the class in preparation of GCSE.	**Impact:** To respond to the needs of the class in preparation of GCSE.	**Impact:** To respond to the needs of the class in preparation of GCSE.	**Impact:** To respond to the needs of the class in preparation of GCSE.