Queen Elizabeth's Girls' School
Educating Women of the Future

Founded in 1888

Key Stage 4 Curriculum

	Topic/Big Question	Focus - Foundation
Year 10	Can perimeter and area of a shape ever be equal?	Statistics: Sampling and averages, Perimeter and Area of 2D shapes, Volume and surface area of 3D shapes
	Does enlargement affect length, area and volume in the same way?	Real life graphs, Linear graphs, Transformations
	Is Maths a universal language?	Ratio and Proportion, Pythagoras Theorem, Trigonometry of right angles triangles
	Is life fairer because of Maths?	Probability, Multiplicative reasoning
	Do all shapes occur naturally?	Plans and elevations, Constructions, Loci and Bearing, Quadratic equations
	How do we use 2D shapes to understand 3D shapes?	Quadratic equations and graphs, 2D and 3D shapes (Circles, cylinders, cones and spheres), Fractions and reciprocals

	Topic/Big Question	Focus - Higher
Year 10	Is there beauty in Maths?	Real life graphs, Linear graphs, Coordinate geometry, Quadratic and cubic and other graphs
	Can perimeter and area of a shape ever be equal?	Perimeter and area of 2D shapes, Volume and surface area of 3D shapes, Accuracy and Bounds, Transformations
	Do all equations always have a solution?	Constructions, Loci and Bearings, Solving Quadratics and simultaneous equations
	Is competition good for us?	Inequalities, Probability, Multiplicative reasoning
	What is so special about congruent shapes?	Multiplicative reasoning, Similarity and Congruence, Further Trigonometry
	How to use navigation in order to pinpoint a location?	Transformations of graphs, Graphs of trigonometric functions, Collecting data, Cumulative frequency, Box plots and Histograms

	Topic/Big Question	Focus: Foundation
Year 11	Is competition good for us?	Probability, Multiplicative reasoning, Plans and elevations
	How does Maths apply to real life?	Constructions, Loci and bearings, Quadratics expressions and equations, Fractions and reciprocals
	What 3D shapes occur in nature. How efficiently can you pack these shapes together?	Volume of 3D shapes(cylinders, cones, spheres), Indices and standard form Similarity and congruence in 2D, Rearranging equations, graphs, simultaneous equations
	What are the many real-life applications of vectors?	Vectors
	Past paper Practice	

	Topic/Big Question	Focus: Higher
Year 11	What type of triangle?	2D and 3D and further Trigonometry, Probability, Multiplicative reasoning, Collecting data, Cumulative frequency, Box plots and Histograms
	How are circle theorems useful in real life?	Quadratics and sketching of graphs, Circle theorems, Circle geometry
	Do you think similarity and scale factors are linked to trigonometric functions?	More complex rearranging, algebraic fractions, rationalising surds, Direct and inverse proportion, Reciprocal and exponential graphs, Gradient and area under graphs
	What are the many real-life applications of vectors?	Vectors and geometric proof
	Past Paper Practice	