

Year 11 Foundation ~ Curriculum Map for Maths

What are the intended aims for this year's curriculum? To start the GCSE Scheme of Work to build on topics learnt in year 9 and extend idea's further.													
Term 1		Term 2		Term 3		Term 4		Term 5		Term 6			
Topic(s): Trigonometry Inequalities		Topic(s): Proof and algebraic fractions Vectors		Topic(s): Transformations of Graphs Revision of Number Revision Geometry Revision of Statistics Revision Algebra Revision of Ratio Revision Probability		Topic(s): Revision of Number Revision Geometry Revision of Statistics Revision Algebra Revision of Ratio Revision Probability		Topic(s): Revision of Number Revision Geometry Revision of Statistics Revision Algebra Revision of Ratio Revision Probability		Topic(s):			
Aim of A&R		Aim of A&R		Aim of A&R		Aim of A&R		Aim of A&R		Aim of EoY exam			
'Big idea(s)' / fundamental concepts		To find missing sides or angles using Trigonometry and Pythagoras To understand inequalities as representing a range of solutions To understand and use $y = mx + c$		To use algebra to prove mathematical concepts To write and understand vectors To prepare for the mock exams		To transform different types of graphs Students will rotate between all six strands of maths so that they are regularly revising each strand. The specific topics covered will be driven by the gap analysis from the mocks and PPE's but are likely to cover topics from the lists in the term 3/4/5 columns.		Students will rotate between all six strands of maths so that they are regularly revising each strand. The specific topics covered will be driven by the gap analysis from the mocks and PPE's but are likely to cover topics from the lists in the term 3/4/5 columns.		Students will rotate between all six strands of maths so that they are regularly revising each strand. The specific topics covered will be driven by the gap analysis from the mocks and PPE's but are likely to cover topics from the lists in the term 3/4/5 columns.			
Knowledge to be learnt		To find a missing side using Pythagoras, including in 3D situations. To find a missing side or angle using Trigonometry, including in 3D situations To identify when and be able to successfully use the sine rule, the cosine rule and $1/2ab\sin C$ To recognise and sketch the graphs of trigonometric functions To solve linear and quadratics inequalities To solve linear equalities graphically To find the gradient and y-intercept of a line and use them in the form $y=mx+c$ To find the equation of a line when given one point and a gradient or two points To find the equation of parallel or perpendicular lines		To simplify and manipulate algebraic fractions. To use algebra to construct proofs and arguments To represent 2D vectors as column vectors and to draw these on a coordinate grid To add, subtract and multiply vectors To use vectors in geometric proofs To prepare for the mock exams		To recognise different types of graphs and be able to transform them. <u>Number</u> Finding HCF and LCM using PFD Calculating in standard form Fractional and negative indices Surds Bounds Recurring Decimals Estimation Fractions Compound Interest Reverse Percentages Repeated change <u>Geometry</u> Circle Theorems Angles in Parallel Lines Angles in Polygons Bearings Arc Length, Area of Sector Area of compound shapes Draw and describe transformations Negative and fractional enlargements 3D Pythagoras and Trigonometry		<u>Algebra</u> Factorising Quadratics including those with coefficients Algebraic Fractions Expanding Triple Brackets Equations of Parallel and Perpendicular Lines Simultaneous Equations inc quadratics and equations of a circle Rearrange Formula Quadratic Sequences Compound Measures Kinematics Roots and turning points algebraically Average rate of change Gradient of a curve Drawing and solving inequalities graphically and algebraically Quadratic inequalities Completing the square Proof Iteration Quadratic formula Composite Functions <u>Statistics</u> Averages in a table Stratified Sampling Cumulative Frequency Box Plots Scatter Diagrams Histograms Pie Charts		<u>Ratio and proportion</u> Share a ratio Unitary Method Best buy Change a recipe Currency conversion Similar Shapes <u>Probability</u> Venn diagrams Tree Diagrams inc conditional probability		End of Year Exam approx 20% on each term	
As		As		MockExmas		MockExmas		MockExmas		MockExmas			

				Distance between two points Volume and Surface area of Cylinders/Spheres/Pyramids/ Frustums Congruency Proof Loci Sine and Cosine rule and $\frac{1}{2}ab\sin C$ Similar shapes inc the effect of enlargement on area and volume Transformations of graphs Vector proof				
Key vocabulary								
The role of reading and comprehension		To decode questions	To decode questions	To decode questions	To decode questions	To decode questions		
The role of independent extended writing	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
The role of maths/ numeracy	In all the above	In all the above	In all the above	In all the above	In all the above	In all the above	In all the above	In all the above
Links to careers/ aspirations		Decoding exam questions that are set for homework to decide what method to use.	Decoding exam questions that are set for homework to decide what method to use.	Decoding exam questions that are set for homework to decide what method to use.	Decoding exam questions that are set for homework to decide what method to use.	Decoding exam questions that are set for homework to decide what method to use.		
Core skills <i>A skill is a performance built on what a person knows</i>		To be able to answer exam style questions by drawing upon a variety of different mathematical skills	To be able to answer exam style questions by drawing upon a variety of different mathematical skills	To be able to answer exam style questions by drawing upon a variety of different mathematical skills	To be able to answer exam style questions by drawing upon a variety of different mathematical skills	To be able to answer exam style questions by drawing upon a variety of different mathematical skills		
Dept. enrichment activities		Revision sessions are on every week at school. Lunch time drop in MA17 every lunch time	Revision sessions are on every week at school. Lunch time drop in MA17 every lunch time	Revision sessions are on every week at school. Lunch time drop in MA17 every lunch time	Revision sessions are on every week at school. Lunch time drop in MA17 every lunch time	Revision sessions are on every week at school. Lunch time drop in MA17 every lunch time		
Home learning opportunities		Use the maths packs in the Student shared area > Maths > GCSE REVISION > REVISION PACKS to practise exam questions on the topics that have been revised this term. Repetition of questions is the only way with Mathematics.	Use the maths packs in the Student shared area > Maths > GCSE REVISION > REVISION PACKS to practise exam questions on the topics that have been revised this term. Repetition of questions is the only way with Mathematics.	Use the maths packs in the Student shared area > Maths > GCSE REVISION > REVISION PACKS to practise exam questions on the topics that have been revised this term. Repetition of questions is the only way with Mathematics.	Use the maths packs in the Student shared area > Maths > GCSE REVISION > REVISION PACKS to practise exam questions on the topics that have been revised this term. Repetition of questions is the only way with Mathematics.	Use the maths packs in the Student shared area > Maths > GCSE REVISION > REVISION PACKS to practise exam questions on the topics that have been revised this term. Repetition of questions is the only way with Mathematics.		