

Fairfield High School Curriculum Overview – Year 11



Subject	Maths	Why do we study these units in Year 11?
Lessons per fortnight	8	<p>These units continue to challenge the higher tier students and prepare them for studying maths at Post 16 while also consolidating and supporting all students to achieve their best.</p> <p>The topics and units become completely tailored to classes or individual students' needs.</p>
Setting	<p>Sets 1, 2 Study Higher SoW. Some Set 3 students change tiers dependant on their need for challenge or support. Set 4 study the Foundation SoW</p>	

Higher
<p>Students are encouraged to be Responsible Global Citizens through activities/content on...</p> <p>Every unit has a sustainable development goal assigned. This is used as inspiration for teachers to incorporate global learning elements. Every assessment has one global learning question based on the respective sustainable development goal.</p>

We ensure all students experience high challenge in the subject by including...

Highly differentiated lessons tailored to the need of every class with problem solving and reasoning elements that will sufficiently challenge high attaining students whilst being accessible to students who need a little more scaffolding

Literacy work this year includes...

Each term has one spelling test as well as a crossword activity with key words

Employability opportunities/skills covered this year are... PIXL Maths Conference to boost some less confident students.

HIGHER				
Term	Unit title	Knowledge and Understanding/content	Skills	Assessment
1	1. Equations and inequalities	15.1 linear equations 15.2 elimination method simultaneous 15.3 substitution method simultaneous 15.4 balancing coefficients to solve simultaneous equations 15.5 using simultaneous to solve problems	Fluency in Algebra Problem Solving Reasoning	End of Unit Test incorporating elements of fluency, reasoning and problem solving.

		15.6 linear inequalities 15.7 graphical inequalities 14.1 Powers (Indices) 14.2 Rules for Multiplying and Dividing 14.3 Standard Form review		
2	2. Quadratic equations	17.4 solving quadratics by completing square 17.5 significant points of quadratic curve 4.6 the nth term quadratic sequence 4.7 finding the nth term quadratic sequence 17.6 solve linear/non linear using graphs 17.7 solve quadratic equation by intersection 17.8 solving linear & non linear simultaneous equations algebraically. 17.9 quadratic inequalities	Fluency in Algebra Problem Solving Reasoning	November PPEs

3	3. Properties of circles 4. Sampling and more complex diagrams	20.1 circle theorems 20.2 cyclic quadrilaterals 20.3 tangents and chords 20.4 alternate circle theorem 18.1 collecting data 18.2 frequency polygons 18.3 cumulative frequency graphs 18.4 box plots 18.5 histograms	Fluency in Geometry and Algebra Problem Solving Reasoning	
4	5. Triangles 6. Graphs	22.1 further 2D problems 22.2 further 3D problems 22.3 trigonometric ratios of angles between 0 and 360 22.4 solving any triangle 22.5 using sine rule to find area of a triangle 23.1 distance time graphs 23.2 velocity time graphs	Fluency in Algebra and Geometry Problem Solving Reasoning	Feb PPEs

	7. Algebraic Fractions and Functions	23.3 estimating area under a curve 23.4 rates of change 23.5 equation of a circle 23.6 other graphs 23.7 transformations of the graph $y=f(x)$ 24.1 algebraic fractions 24.2 changing the subject including 8.8 24.3 functions 24.4 composite functions 24.5 iteration Simple proofs		
8.	Vectors	25.1 properties of vectors 25.2 vectors in geometry		
5	Individualised Revision			



Foundation				
Term	Unit title	Knowledge and Understanding/content	Skills	Assessment
1	1. Right angled triangles	22.1 Pythagoras' theorem 22.2 calculate the shorter side 22.3 apply Pythagoras to real life 22.4 Pythagoras and isosceles triangles 22.5 trigonometric ratios 22.6 calculate length using trigonometry 22.7 calculate angles using trigonometry 22.8 trigonometry without a calculator 22.9 solve problems using trigonometry	Fluency in number Problem Solving Reasoning	End of Unit Test incorporating elements of fluency, reasoning and problem solving.

	2. Congruency and Similarity	22.10 trigonometry and bearings 22.11 trigonometry and isosceles triangles 23.1 congruent triangles 23.2 similarity		
2	3. Curved shapes and pyramids 4. Standard form & Powers	20.1 sectors 20.2 pyramids 20.3 cones 20.4 spheres 25.1 indices 25.2 rules for multiplying & dividing powers 25.3 standard form	Fluency in number Problem Solving Reasoning	Nov PPE
3	5. Simultaneous equations and linear inequalities	26.1 elimination method for simultaneous 26.2 substitution method for simultaneous	Fluency Problem Solving Reasoning	

	6. Non linear graphs 7. Transformations	26.3 balancing coefficients to solve simultaneous equations 26.4 use simultaneous to solve problems 26.5 linear inequalities 27.2 plot quadratic graphs 27.3 solve quadratics by factorisation 27.4 significant points of a quadratic graph 27.5 cubic and reciprocal graphs 12.7 vectors		
4	8. Probability and events	13.1 calculating probability 13.2 probability that an outcome will not happen 13.43 mutually exclusive and exhaustive outcomes	Fluency in Number Problem Solving Reasoning	Feb PPE

	9. Combined events	13.4 experimental probability 13.5 expectation 13.6 choices and outcome 24.1 combined events 24.2 two way tables 24.3 probability and Venn diagrams 24.4 tree diagrams		
5	10. Percentages and compound measure 11. Percentage & variation	16.1 equivalent percentages decimals & fractions 16.2 percentage of a quantity 16.3 increase/decrease by a percentage 16.4 express a as a percentage of b 16.5 compound measures 17.1 compound interest and repeated change	Fluency in Number Problem Solving Reasoning	



		17.2 reverse percentage 17.3 direct proportion 17.4 inverse proportion		
6	Individualised Revision			