

### KS5 Learning Plan Y12: FM

Date	Teacher 1	Independent Learning	Teacher 2	Independent Learning
11/09/23	<b>Unit 1 (Core Pure 1)</b> <b>CP1: EX 1A, 1B</b> Imaginary and Complex Numbers	HL1C (CP1: EX 1A-1D) 1 hour Finish All Exercises	<b>FM1: EX 1A</b> Momentum in One Direction	Dr Frost 1A 2 hours
18/09/23	Multiplying Complex Numbers <b>CP1: EX 1C, 1D</b> Complex Conjugation	1 hour Dr Frost 1C 2 hours	<b>FM1: EX 1B, 1C</b> Conservation of Momentum Momentum as a Vector	HL1A (FM1: EX 1A-1C) 1 hour Finish All Exercises 1 hour
25/09/23	<b>Units 1&amp;3 (Core Pure 1)</b> <b>CP1: EX 1E, 1F</b> Roots of Quadratic Equations	HL2C (CP1: EX 1E,1F,2A,2B) - 1 hour Finish All Exercises	<b>FS1: EX 1A, 1B</b> Expected Value of a Discrete Random Variable Variance of a Discrete Random Variables	Dr Frost 2A 2 hours HL2A (FS1: EX 1A-1D)
02/10/23	Solving Cubic and Quartic Equations <b>CP1: EX 2A, 2B</b> Argand Diagrams Modulus and Argument	1 hour Dr Frost 2C 2 hours	<b>FS1: EX 1C, 1D</b> Expectation and Variance of a Function of X Solving Problems Involving DRV's	1 hour Finish All Exercises 1 hour
09/10/23	<b>Unit 3 (Core Pure 1)</b> <b>CP1: EX 2C, 2D</b> Modulus-Argument Form of Complex Numbers	HL3C (CP1: EX 2C-2F) 1 hour Finish All Exercises	<b>Applied AS: EX 6B, 6C</b> The Binomial Distribution Cumulative Probabilities	Dr Frost 3A 2 hours HL3A (Applied AS: EX 6B-7D) 1 hour
16/10/23	Loci and Argand Diagrams <b>CP1: EX 2E, 2F</b> Loci and Argand Diagrams Regions and Argand Diagrams <b>CP Test 1: Units 1&amp;3 (Complex Numbers)</b>	1 hour Dr Frost 3C 2 hours	<b>Applied AS: EX 7A, 7B, 7C, 7D</b> Hypothesis Testing	Finish All Exercises 1 hour

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23/10/23	<b>Unit 2 (Core Pure 1)</b> <b>CP1: EX 6A, 6B, 6C</b> Introduction to Matrices Matrix Multiplication Determinants <b>CP1: EX 6D, 6E, 6F</b> Inverting 2x2 and 3x3 Matrices Solving a System of Equations Using Matrices	HL4C (CP1: EX 6A-6F) 1 hour Finish All Exercises 1 hour Dr Frost 4C 2 hours	<b>FS1: EX 2A, 2B</b> The Poisson Distribution Modelling with the Poisson Distribution <b>FS1: EX 2C, 2D</b> Modelling with the Poisson Distribution Adding Poisson Distributions Mean and Variance of a Poisson Distribution	Dr Frost 4A 2 hours HL4A (FS1: EX 2A-2D) 1 hour Finish All Exercises 1 hour
HT w/c 30/10/23				
06/11/23				
13/11/23	<b>Unit 2 (Core Pure 1)</b> <b>CP1: EX 7A, 7B</b> Linear Transformations in 2D Reflections and Rotations <b>CP1: EX 7C, 7D</b> Enlargements and Stretches Successive Transformations	HL5C (CP1: EX 7A-7C) 1 hour Finish All Exercises 1 hour Dr Frost 5C 2 hours	<b>FS1: EX 2E, 2F</b> Mean and Variance of a Poisson Distribution Mean and Variance of a Binomial Distribution <b>FS1: EX 2G</b> Approximation of the Binomial Distribution	Dr Frost 5A 2 hours HL5A (FS1: EX 2E-2G) 1 hour Finish All Exercises 1 hour
20/11/23				
27/11/23	<b>Unit 2 (Core Pure 1)</b> <b>CP1: EX 7D, 7E</b> Linear Transformations in 3D <b>CP1: EX 7F</b> The Inverse of a Linear Transformation <b>CP Test 2: Unit 2 (Matrices)</b>	HL6C (CP1: EX 7D-7F) 1 hour Finish All Exercises 1 hour Dr Frost 6C 2 hours	<b>FM1: EX 2A</b> Work Done <b>FM1: EX 2B</b> Kinetic and Potential Energy	Dr Frost 6A 2 hours HL6A (FM1: EX 2A-2B) 1 hour Finish All Exercises 1 hour
04/12/23				

Date	Teacher 1	Independent Learning	Teacher 2	Independent Learning
11/12/23	<b>Unit 5 (Core Pure 1)</b> <b>CP1: EX 4A, 4B</b> Roots of Quadratic and Cubic Equations	Revision HL7C (CP1: EX 4A-4B) 1 hour Finish All Exercises 1 hour Dr Frost 7C 2 hours	<b>FM1: EX 2C</b> Conservation and the Work-Energy Principle	Revision Dr Frost 7A 2 hours HL7A (FM1: EX 2C) 1 hour Finish All Exercises 1 hour
18/12/23	Consolidation & revision	Revision	Consolidation & revision	Revision
Christmas Holidays				
08/01/24	<b>Unit 5 (Core Pure 1)</b>	Revision	<b>FM1: EX 2D</b>	Revision
15/01/24	<b>CP1: EX 4C, 4D</b> Roots of Quartic Equations Expressions Relating to Roots of Polynomials <b>CP1: EX 4E</b> Linear Transformations of Roots <b>CP Test 3: Unit 3 (Roots of Polynomials)</b>	HL8C (CP1: EX 4C-4E) 1 hour Finish All Exercises 1 hour Dr Frost 8C 2 hours	Power <b>FM1: EX 4A, 4B</b> Direct Impact and Newton's Law of Restitution Direct Collision with a Smooth Plane	Dr Frost 8A 2 hours HL8A (FM1: EX 2D, 4A-4B) 1 hour Finish All Exercises 1 hour
22/01/24	<b>Units 4&amp;6 (Core Pure 1)</b>	HL9C (CP1: EX 3A-3B, 8A-8C) 1 hour	<b>FM1: EX 4C</b> Loss of Kinetic Energy	Dr Frost 9A 2 hours
29/01/24	<b>CP1: EX 3A, 3B</b> Sums of Natural Numbers Sums of Squares and Cubes <b>CP1: EX 8A, 8B, 8C</b> Proof by Mathematical Induction Proving Divisibility Results Proving Statements Involving Matrices <b>CP Test 4: Units 4&amp;6 (Series &amp; Proof)</b>	Finish All Exercises 1 hour Dr Frost 9C 2 hours	<b>FM1: EX 4D</b> Successive Direct Impacts	HL9A (FM1: EX 4C-4D) 1 hour Finish All Exercises 1 hour

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05/02/24	<b>Unit 7 (Core Pure 1)</b>	HL10C (CP1: EX 9A-9B)	<b>FS1: EX 4A</b>	Dr Frost 10A
HT	<b>CP1: EX 9A</b>	1 hour	Testing for the Mean of a Poisson	2 hours
12/02/24	Equation of a Line in 3D	Finish All Exercises	<b>FS1: EX 4B</b>	HL10A (FS1: EX 4A-4B)
20/02/24	<b>CP1: EX 9B</b>	1 hour	Finding Critical Regions for a Poisson	1 hour
	Equation of a Plane in 3D	Dr Frost 10C		Finish All Exercises
		2 hours		1 hour
Y12 Mock Week 26/02/24				
04/03/24	<b>Unit 7 (Core Pure 1)</b>	HL11C (CP1: EX 9C-9D)	<b>FS1: EX 6A, 6B</b>	Dr Frost 11A
11/03/24	<b>CP1: EX 9C</b>	1 hour	Goodness of Fit	2 hours
	The Scalar Product	Finish All Exercises	Degrees of Freedom	HL11A (FS1: EX 6A-6C)
	<b>CP1: EX 9D</b>	1 hour	<b>FS1: EX 6C</b>	1 hour
	Calculating Angles Between Lines and Planes	Dr Frost 11C	Testing a Hypothesis	Finish All Exercises
		2 hours		1 hour
18/03/24	<b>Unit 7 (Core Pure 1)</b>	HL12C (CP1: EX 9E-9F)	<b>FS1: EX 6D, 6E</b>	Dr Frost 12A
25/03/24	<b>CP1: EX 9E</b>	1 hour	Testing the Goodness of Fit for Discrete Data	2 hours
	Points of Intersection	Finish All Exercises	Using Contingency Tables	HL12A (FS1: EX 6D-6E, 3A-3B) 1 hour
	<b>CP1: EX 9F</b>	1 hour	<b>FS1: EX 3A, 3B</b>	1 hour
	Finding Perpendiculars	Dr Frost 12C	The Geometric Distribution	Finish All Exercises
	<b>CP Test 5: Unit 7 (Vectors)</b>	2 hours	Mean and Variance of a Geometric Distribution	1 hour
Easter Holiday				
Easter Holiday				

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15/04/24	<b>Unit 8 (Core Pure 1)</b>	HL13C (CP1: EX 5A-5D)	REVISION	Revision
22/04/24	<b>CP1: EX 5A, 5B</b> Volumes of Revolution about the Axes <b>CP1: EX 5C, 5D</b> Adding and Subtracting Volumes Modelling with Volumes of Revolution <b>CP Test 6: Unit 8 (Volumes of Revolution)</b>	1 hour Finish All Exercises 1 hour Dr Frost 13C 2 hours	REVISION	Revision
Year 13 Content				
29/04/24	<b>Unit 8 (Core Pure 2)</b>	<b>Y13</b> HL1C (CP1: EX 1A-1C)	<b>FS1: EX 3C, 3D</b> The Negative Binomial Distribution	<b>Y13</b> HL1A (FS1: EX 3C-3D, 4C)
06/05/24	<b>CP2: EX 1A, 1B</b> Exponential Form of Complex Numbers Multiplying and Dividing Complex Numbers <b>CP2: EX 1C</b> de Moivre's Theorem	1 hour Finish All Exercises 1 hour Dr Frost 1C 2 hours	<b>FS1: EX 4C</b> Hypothesis Testing and a Geometric Distribution	1 hour Finish All Exercises 1 hour Dr Frost 1A 2 hours
13/05/24	<b>Unit 8 (Core Pure 2)</b>	<b>Y13</b> HL2C (CP1: EX 1D and 1F)	<b>FS1: EX 4D</b> Critical Regions and a Geometric Distribution	<b>Y13</b> HL2A (FS11: EX 4D, 6F)
20/05/24	<b>CP2: EX 1D</b> Trigonometric Identities <b>CP2: EX 1F</b> nth Roots of a Complex Number	1 hour Finish All Exercises 1 hour Dr Frost 2 hours	<b>FS1: EX 6F</b> Goodness of Fit and a Geometric Distribution	1 hour Finish All Exercises 1 hour Dr Frost 2A 2 hours
Half Term				
03/06/24	Revision	Revision	Revision	Revision
10/06/24	Revision		Revision	
17/06/24	Revision	Revision	Revision	Revision
24/06/24	Revision		Revision	
Y12 Mocks (w/c 01/07/24)				
Work Experience (w/c 08/07/24)				
15/07/24	Assessment Review		Assessment Review	



NB dates of mock exams/WEX provisional and based on 2023-24 calendar