Subject: Mathematics   **Exam Board: Pearson**

	Year 12					
	Autumn 1	**Autumn 2**	**Spring 1**	**Spring 2**	**Summer 1**	**Summer 2**
Topics	Trig ratios Binomial expansion Exponentials and logs Algebraic expressions Quadratics Straight line graphs	Exponentials and logs Vectors Differentiation Equations and inequalities Graphs and transformations PPEs	Exam Qs Differentiation Integration Algebraic methods Circles	Trig identities and equations Exam questions Modelling in mechanics Constant acceleration Data collection Measures location/spread Representation of data	Constant acceleration Forces and motion Representation of data Probability Statistical distributions	Forces and motion Variable acceleration Hypothesis testing Exam Qs
Key skills and Concepts	Trig ratios Binomial expansion Exponentials and logs Algebraic expressions Quadratics Straight line graphs	Exponentials and logs Vectors Differentiation Equations and inequalities Graphs and transformations PPEs	Exam Qs Differentiation Integration Algebraic methods Circles	Trig identities and equations Exam questions Modelling in mechanics Constant acceleration Data collection Measures location/spread Representation of data	Constant acceleration Forces and motion Representation of data Probability Statistical distributions	Forces and motion Variable acceleration Hypothesis testing Exam Qs
Threshold Concepts	Expanding quadratics Expanding cubics Y = mx + c Trig ratios	Index laws Quadratic inequalities Graph transformation	Equation of a circle Algebraic rules Topics taught previously this year	Trig ratios Speed, distance, time Finding the gradient of a graph Differentiation Integration	Compound measures Probability Representing data (graphs)	Probability Representing data (graphs) Topics taught this year
Endpoints	AS Maths – this assessment will be taken in the summer.	AS Maths – this assessment will be taken in the summer.	AS Maths – this assessment will be taken in the summer.	AS Maths – this assessment will be taken in the summer.	AS Maths – this assessment will be taken in the summer.	AS Maths – this assessment will be taken in the summer.
Assessment	Initial topic test – mid October	December PPE	Topic test	Topic test	PPE- full AS paper	

Key Stage Subject Timeline Year 12 to 13

Subject: Mathematics   **Exam Board: Pearson**

	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
			Year 13			
Topics	Radians Application of vectors Rational functions Partial fractions Binomial expansion Functions	Projectiles Forces in context Further trig Calculus trig/exponentials Further differentiation Further graph transformation	Forces in context Moments Further differentiation Further integration Conditional probability Normal distribution	Further application calculus Sequences and series Differential equations Numerical solutions Further hypothesis testing	Sequences and series Proof Numerical solutions Numerical integration Further hypothesis testing Revision	Exams
Key skills and Concepts	Radians Application of vectors Rational functions Partial fractions Binomial expansion Functions	Projectiles Forces in context Further trig Calculus trig/exponentials Further differentiation Further graph transformation	Forces in context Moments Further differentiation Further integration Conditional probability Normal distribution	Further application calculus Sequences and series Differential equations Numerical solutions Further hypothesis testing	Sequences and series Proof Numerical solutions Numerical integration Further hypothesis testing Revision	Exams
Threshold Concepts	Trig ratios from year 12 Vectors Geometric proof Binomial expansion Functions	Mechanics AS Trig ratios Differentiation Graph transformation	Mechanics AS Differentiation Integration Probability Binomial distribution	Differentiation Sequences Integration Hypothesis testing	Sequences Proof Numerical solutions Hypothesis testing	
Endpoints	A level – Summer	A level – Summer	A level – Summer	A level – Summer	A level – Summer	A level – Summer
Assessment	Initial topic test – mid October	December PPEs	Topic test – mid January	Full A-level paper	Ongoing mini assessments	