

# COMPASSION

#### COURAGE

QEMS

## **Curriculum overview**

Subject	Mathematics	Year group	12				
Subject Vision statement: Curriculum intent:	At Landau Forte our curriculum exists to ensure all students regardless of potential. We are committed to students being challenged from their precurriculum is ambitious, coherently planned and sequenced, and will prove for examination success. Our Curriculum Intent has been informed by a wide variety of researchers summarises the aspiration of our curriculum to empower all learners creater <i>'A curriculum exists to change the pupil, to give the pupil new power. One attaining or disadvantaged pupils to clamber into the discourse and pract powerful.'</i> As well as excellent academic success we aim to ensure our students leaver values of Compassion, Courage and Curiosity are currently being embedd meet our social, emotional, spiritual and moral obligations. All students acquire the mathematical life skills necessary for the world or abilities and backgrounds. We have a strong belief that all students can are students will be taught to have a firm understanding of number bonds are problems.	background and ability have the c vious key stage learning experience vide the platform for preparing stu s and is steeped in evidence based ating a pathway to success in unive e acid test for a curriculum is wheth vices of educated people, so that the ve us as polite and well-rounded y led throughout our curriculum offer f work, no matter what their startic chieve in Maths. and be confident in using non-calcul to develop resilience.	pportunity to unlock their es. Our broad and balanced idents with the foundations I research. Christine Counsell ersity, their career and life: <i>her it enables even lower</i> <i>rey gain powers of the</i> oung adults. Our new core er to ensure we continue to ing point is, catering for all ator strategies for solving				
	Students are encouraged to show <b>courage</b> through attempting questions in environment where other students show <b>compassion</b> through a culture of being non-judgmental when questions are answered incorrectly. Students are also encouraged to show <b>curios</b> through asking questions and taking a genuine interest in the real life applications of the Maths that they are learning. This will be achieved by staff working together in planning lessons that allow ALL students to achieve/ exceed their potential throu Common lesson planning formats; Expert knowledge of the subject; Differentiated material; Regular use of AfL to assess progress in a lesson; Regular use of formal marking and feedback; Regular summative assessments to ensure appropriate progress and intervention.						
Threshold Concepts (TCs):	TC1 Algebraic manipulation - This concept involves recognising mathema TC2 Number sense - This concept involves understanding the number sys		• •				





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	ways TC3 Shape facts - This co TC4 Multiplicative reaso applications TC5 Representing and in TC6 Calculator skills - Th TC7 Understanding and o	ning - This concept invo terpreting data - This co is concept involves flue calculating risk - This co	olves using ratio and pro oncept involves interpro nt application of mathe oncept involves knowing	pportion and understand eting, manipulating and p matical operations on a g the rules of probability	ling of reciprocals in presenting data in v scientific calculator	arious ways.
KS4 National Curriculum summary:	problems over ti accurately. • reason mathema argument, justifi • can solve proble	a the fundamentals of n me, so that pupils deve atically by following a lin cation or proof using m ms by applying their ma ncluding breaking down connected subject in wh f study for key stage 4 is nematical ideas. They sh nee in solving increasing	nathematics, including t elop conceptual underst ne of enquiry, conjectur nathematical language athematics to a variety problems into a series nich pupils need to be a is organised into appare nould build on learning gly sophisticated proble	through varied and freque anding and the ability to ring relationships and ge of routine and non-routi of simpler steps and per ble to move fluently bette ently distinct domains, but from key stage 3 to furth	o recall and apply kn neralisations, and d ne problems with in severing in seeking ween representatio ut pupils should dev ner develop fluency,	owledge rapidly and eveloping an ncreasing solutions. ns of mathematical relop and consolidate , mathematical
Learner skills:	Critical thinking	Organisation	Collaboration	Adaptability	Oracy	Self-quizzing

	CURIOSITY		COMPASSION	N	COURAGE	Q E M S
	CRITICAL THINKING	ORGANISATION	COLLABORATION	ADAPTABILITY	ORACY	SELF QUIZZING
	Term 1 Aug-Oct	Term 2 Nov-Dec	Term 3 Jan-Feb	Term 4 Mar-Apr	Term 5 Apr-May	Term 6 Jun-Jul
The Big Question						
Big picture questions:	How do I manipulate algebra to help me solve problems? How do I solve problems with straight line graphs and circles?	What are the applications of trigonometry? How can I solve more complex algebraic problems? How do we describe movement in Maths? How can I use sampling in practice? What is the difference between scalar and vector quantities?	What is differentiation? How can I use data to draw conclusions?	What are the applications of trigonometry? How can I solve more complex algebraic problems? How can I use a calculator to calculator work out multiple probabilities? How can I apply Newton's laws?	What are the applications of integration? What are the uses of logs? How can I use a variety of techniques to interpret the probability of an event happening? What is a hypothesis test?	How does differentiation and integration help in mechanics? What is a partial fraction?



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COMPASSION		<b></b>	<b></b>	<b></b>	<u></u>	COMPASSION PASSION
		How can I use the SUVAT equations to solve problems?				
Content	TC1 Algebraic	TC1 Algebraic	TC1 Algebraic	TC1 Algebraic	Integration	Kinematics 2
(Linked to TCs):	manipulation	manipulation	manipulation	manipulation	Definition as	(variable
	TC3 Shape facts	TC3 Shape facts	TC5 Representing	TC3 Shape facts	opposite of	acceleration)
	1	TC5 Representing	and interpreting	TC6 Calculator skills	differentiation,	Variable force;
	Algebra and functions	and interpreting	data TCC Coloulator skills	TC7 Understanding	indefinite integrals	Calculus to
	Algebraic expressions – basic algebraic	data TC6 Calculator skills	TC6 Calculator skills	and calculating risk	of xn Definite integrals	determine rates of change for
	manipulation, indices		Differentiation	Trigonometry	and areas under	kinematics
	and surds	Trigonometric ratios	Definition,	Trigonometric	curves	Use of integration
	Quadratic functions –	and graphs	differentiating	identities and		for kinematics
	factorising, solving,		polynomials, second	equations	Exponentials and	problems
	graphs and the	Further algebra	derivatives		logarithms	
	discriminants	Algebraic Fraction &	Gradients, tangents,	Further algebra	Exponential	Algebraic Methods
	Equations –	dividing polynomials	normals, maxima	The Binomial	functions and	Proof: Examples
	quadratic/linear	The factor Theorem	and minima	expansion	natural logarithms	including proof by
	simultaneous	Mathematical Proof and methods of	Data presentation	Probability	Statistical	deduction* and
	Inequalities – linear	proof	and interpretation	Mutually exclusive	distributions Use	proof by
	and quadratic	proor	Interpret diagrams	events;	discrete	contradiction
	(including graphical	Vectors (2D)	for single-variable	Independent events	distributions to	Algebraic and
	solutions)	Definitions,	data; Interpret		model real-world	partial fractions
	, Graphs – cubic, quartic	magnitude/direction,	· ·	Forces & Newton's	situations; Identify	Simplifying
	and reciprocal	addition and scalar	and regression lines;	laws	the discrete uniform	algebraic fractions
		multiplication	Recognise and		distribution;	Partial fractions



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Transformations – transforming graphs – f(x) notation	Position vectors, distance between two points, geometric problems	interpret outliers; Draw simple conclusions from statistical problems	Newton's first law, force diagrams, equilibrium, introduction to i, j system	Calculate probabilities using the binomial distribution (calculator use	
Coordinate geometry in the (x, y) plane Straight-line graphs, parallel/perpendicular, length and area problems Circles – equation of a circle, geometric problems on a grid	Statistical sampling Introduction to sampling terminology; Advantages and disadvantages of sampling Understand and use sampling techniques; Compare sampling techniques in context Data presentation and interpretation Calculation and interpretation of measures of location; Calculation and interpretation of measures of variation; Understand and use coding Quantities and units		Newton's second law, 'F = ma', connected particles (no resolving forces or use of F = μR); Newton's third law: equilibrium, problems involving smooth pulleys HUnit7a	(calculator use expected) Statistical hypothesis testing Language of hypothesis testing; Significance levels Carry out hypothesis tests involving the binomial distribution	
	in mechanics				

	CURIOSITY		COMPASSION	1	COURAGE	
		Introduction to mathematical modelling and standard S.I. units of length, time and mass Definitions of force, velocity, speed, acceleration and weight and displacement; Vector and scalar quantities Kinematics 1 (constant acceleration) Graphical representation of velocity, acceleration and displacement Motion in a straight line under constant acceleration; suvat formulae for constant				
		acceleration; Vertical motion under gravity				
Key vocabulary:	Expression, function, constant, variable, term, unknown, coefficient, index,	Sine, cosine, tangent, interval, period, amplitude, function, inverse,	Differentiation, derivative, first principles, rate of change, rational,	Sine, cosine, tangent, interval, period, amplitude, function, inverse,	Calculus, differentiate, integrate, reverse, indefinite, definite,	Distance, displacement, velocity, speed, constant
	linear, identity,	angle of elevation,	constant, tangent,	angle of elevation,		acceleration,



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change the subject, cross-multiply, power, rational, irrational, standard form, surd, rationalise, exact, manipulate, sketch, discriminant, real root, manipulate, sketch, plot, quadratic, crosts, repeated roots, root, manipulate, sketch, plot, quadratic, construction, root, manipulate, sketch, plot, quadratic, conclusion.hypotenuse, opposite, adjacent, intercept.logarithm, base, inititic, rational mode, variance, range, interquartile range, outlier, skewness, symmetrical, positive skewBinomial, construction, random variable, range, outlier, skewness, symmetrical, polynomials, root, repeated roots, independent, quadratic, cubic, quadratic, concis, repeated roots, transformation, tr						COMPASSION.
substitution, factorise, completing the square, intersection, change the subject, cross-multiply, power, exponent, base, rational, irrational, reciprocal, root, manipulate, sketch, plot, quadratic, counter-example, pint, discriminant, real roots, repeated roots, transformation, transformation, polynomial, exponent, pase, rational, irrational, probability, proof, maximum, minimum, turning point, transformation, transformation, polynomial, discriminant, real roots, repeated roots, differentiate, probability, proof, maximum, minimum, turning point, transformation, translation, polynomial, discriminant, real roots, repeated roots, differentiate, probability, proof, maximum, minimum, turning point, turning	simultaneous,	angle of depression,	normal, increasing,	angle of depression,	constant, evaluate,	variable
completing the square, intersection, change the subject, cross-multiply, power, exponent, base, rational, irrational, rational, irrational, rational, irrational, rational, istandard form, surd, rationalise, exact, manipulate, sketch, plot, quadratic, turning point, turning point, turning point, roots, repeated roots, rational, real monimum, turning point, turning point, 	elimination,	bearing, degree,	decreasing,	bearing, degree,	intersection.	acceleration,
square, intersection, change the subject, cross-multiply, power, exponent, base, rational, irrational, reciprocal, root, mainuum, minimum, mainpulate, sketch, plot, quadratic, maximum, minimum, turning point, turning point, 	substitution, factorise,	identity, special	stationary point,	identity, special		retardation,
change the subject, cross-multiply, power, rational, irrational, standard form, surd, rationalise, exact, manipulate, sketch, discriminant, real root, manipulate, sketch, plot, quadratic, crosts, repeated roots, root, manipulate, sketch, plot, quadratic, construction, root, manipulate, sketch, plot, quadratic, conclusion.hypotenuse, opposite, adjacent, intercept.logarithm, base, inititic, rational mode, variance, range, interquartile range, outlier, skewness, symmetrical, positive skewBinomial, construction, random variable, range, outlier, skewness, symmetrical, polynomials, root, repeated roots, independent, quadratic, cubic, quadratic, concis, repeated roots, transformation, tr	completing the	angles, unit circle,	maximum,	angles, unit circle,	Exponential,	deceleration,
cross-multiply, power, exponent, base, rational, irrational, reciprocal, root, standard forn, surd, rationalise, exact, manipulate, sketch, plot, quadratic, curning point, turning point, turning point, roots, repeated roots, intercepts.Binomial, coefficient, probability, proof, assumptions, deduction, exhaustion, disproof, quadratic, cubic, quadratic, cubic, quadratic, cubic, rationalise, exact, maximum, minimum, turning point, turning point,<	square, intersection,	symmetry,	minimum, integer,	symmetry,	exponent, power,	gradient, area,
exponent, base, rational, irrational, reciprocal, root, standard form, surd, rationalise, exact, manipulate, sketch, plot, quadratic, turning point, torots, repeated roots, sketch, plot, quadratic, maximum, minimum, torots, repeated roots, rational, intercepts.Binomial, coefficient, manipulate, sketch, plot, quadratic, quadratic, cubic, quadratic, cubic, quadratic, cubic, quadratic, cubic, quadratic, cubic, quadratic, cubic, quadratic, cubic, quadratic, conjecture, prediction, rational sketch, plot, quadratic, intercepts.intercept.change, compound intersection, range, interquartile range, interquartile range, outlier, skewness, symmetrical, positive skew, negative skewBinomial, coefficient, probability, proof, assumptions, deduction, exalustion, disproof, range, outlier, skewness, symmetrical, positive skew, negative skewBinomial, conter- exhaustion, discriminant, real range, intercepts.Change, straig line motion, w respect to tim coofficient, assumptions, deduction, example, positive skew, negative skewBinomial, conficure, probitive skew, negative skewChange, compound intercept.change, straig line motion, w respect to tim constant of integration, in continuous random variable, mumber, implies, necessary, sufficient, conclusion.Binomial, conficure, probability, proof, assumptions, deduction, example, polynomial, discriminant, real polynomial, discriminant, real roots, repeated roots, direction,intercept.Change, compound integratic polynomial, director, sufficient, polynomial, director, expand, therefore, conclusion.Binomial, condition.	change the subject,	hypotenuse,	calculus, function,	hypotenuse,	logarithm, base,	differentiate,
rational, irrational, reciprocal, root, standard form, surd, rationalise, exact, manipulate, sketch, plot, quadratic, turning point, racepted roots, intersection, turning point, turning	cross-multiply, power,	opposite, adjacent,	parallel,	opposite, adjacent,	initial, rate of	integrate, rate of
reciprocal, root, standard form, surd, rationalise, exact, manipulate, sketch, plot, quadratic, turning point, transformation, translation, polynomial, votector, scalar, maximum, mininum, turning point, turning poin	exponent, base,	intercept.	perpendicular.	intercept.	change, compound	change, straight-
standard form, surd, rationalise, exact, manipulate, sketch, plot, quadratic, turning point, tracepts.probability, proof, assumptions, deduction, exhaustion, disproof, range, interpurentile range, interpercentile range, outlier, skewness, prodiction, rational prodiction, rational negative skew, necessary, sufficient, root, manipulate, sketch, plot, quadratic, maximum, minimum, turning point, turning point, turansformation, tu	rational, irrational,				interest	line motion, with
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turning point, discriminant, real roots, repeated roots, intercepts.polynomials, factorisation, quadratic, cubic, quadratic, conjecture, prediction, rational number, implies, necessary, sufficient, transformation, translation, polynomial, discriminant, real roots, repeated roots,polynomials, factorisation, skewness, symmetrical, positive skew, negative skew, negative skewdisproof, counter- example, polynomials, factorisation, quadratic, cubic, quadratic, conjecture, prediction, rational number, implies, factorise, factor, expand, therefore, translation, polynomial, discriminant, real roots, repeated roots, discriminant, real roots, repeated roots, discriminant, real roots, repeated roots,polynomials, factorise, factor, expand, therefore, conclusion.disproof, counter- example, polynomials, factorise, factor, sufficient, converse, fully factorise, factor, expand, therefore, conclusion.continuous random variable, mathematical mathematical mathematical mathematical mutually exclusive, Venn diagram, tree diagram.deduction, contact, rational quadratic, cubic, mutually exclusive, Venn diagram, tree diagram.deduction, content, mathematical mutually exclusive, Venn diagram, tree diagram.deduction, content, mutually exclusive, Venn diagram, tree diagram.turning point, translation, polynomial, discriminant, real roots, repeated roots, direction,variable, factor, scalar, magnitude, direction,range, outlier, seewer seewer translation, translation, translation, translation, translation, translation,deduction, conclusion.turnin	plot, quadratic,	exhaustion, disproof,	range,	deduction,	event, discrete	
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roots, repeated roots, intercepts.quadratic, cubic, quartic, conjecture, prediction, rational number, implies, necessary, sufficient, cont, maximum, minimum, transformation, polynomial, polynomial, roots, repeated roots,quadratic, cubic, quartic, conjecture, prediction, rational number, implies, necessary, sufficient, converse, fully factorise, factor, expand, therefore, translation, polynomial, discriminant, real roots, repeated roots,maddratic, cubic, mumber, implies, necessary, sufficient, converse, fully factorise, factor, expand, therefore, translation, polynomial, discriminant, real roots, repeated roots,quadratic, cubic, necessary, sufficient, converse, fully factorise, factor, expand, therefore, conclusion.mathematical modelling, mudaratic, cubic, quadratic, cubic, quadratic, cubic, quadratic, cubic, prediction, rational number, implies, necessary, sufficient, converse, fully factorise, factor, expand, therefore, conclusion.mathematical modelling, mutually exclusive, Venn diagram.irrational, squ root, prime, in square number quadratic, expansion, trigonometry, Pythagoras.respand, therefore, translation, polynomial, discriminant, real roots, repeated roots,quadratic, cubic, symetrical, expand, therefore, direction,mathematical mathematical, squ modelling, number, implies, number, implies, necessary, sufficient, converse, factor, expand, therefore, conclusion.mathematical modelling, modelling, modelling, modelling, modelling, modelling, modelling, modelling, modelling, modelling, modelling, modelling, modelling, modelling, modelling, 	turning point,	polynomials,	range, outlier,	disproof, counter-	continuous random	deduction,
intercepts. intercepts. Factorise, intersection, root, manipulate, sketch, plot, quadratic, turning point, transformation, polynomial, discriminant, real root, repeated roots, direction, rational number, implies, necessary, sufficient, translation, polynomial, direction, rational number, implies, necessary, sufficient, translation, polynomial, discriminant, real root, prime, in positive skew, positive skew, negative skew, prediction, rational number, implies, necessary, sufficient, converse, fully factorise, factor, expand, therefore, conclusion. translation, polynomial, discriminant, real root, prime, in square number, quadratic, prediction, rational number, implies, necessary, sufficient, converse, fully factorise, factor, expand, therefore, conclusion. translation, polynomial, direction, direction,	discriminant, real	factorisation,	skewness,	example,	variable,	contradict, rational,
Factorise, intersection, root, manipulate, sketch, plot, quadratic, maximum, minimum, transformation, translation, polynomial, discriminant, real roots, repeated roots,prediction, rational number, implies, necessary, sufficient, converse, fully factorise, factor, expand, therefore, conclusion.negative skewquadratic, cubic, quartic, conjecture, prediction, rational number, implies, necessary, sufficient, converse, factorise, factor, expand, therefore, conclusion.independent, mutually exclusive, Venn diagram, tree diagram.square number quadratic, expansion, trigonometry, Pythagoras.Image: Description of the probability discrete discriminant, real roots, repeated roots,prediction, rational factor, expand, direction,negative skewquadratic, cubic, quartic, conjecture, prediction, rational number, implies, necessary, sufficient, converse, fully factorise, factor, expand, therefore, conclusion.independent, mutually exclusive, Venn diagram, tree diagram.square number quadratic, expansion, trigonometry, Pythagoras.Image: Description of the probability discription of the probability discription of the probability discrete discription, discrete random trigonometry, probability discretesquare number mutually exclusive, probability discrete discrete random variable, uniform, cumulativesquare number mutually exclusive, probability discrete discrete random variable, uniform, cumulative	roots, repeated roots,	quadratic, cubic,	•	polynomials,	mathematical	irrational, square,
Factorise, intersection, root, manipulate, sketch, plot, quadratic, maximum, minimum, turning point, transformation, polynomial, discriminant, real roots, repeated roots,number, implies, necessary, sufficient, converse, fully factorise, factor, expand, therefore, conclusion.quadratic, quartic, conjecture, prediction, rational number, implies, necessary, sufficient, converse, sufficient, converse, fully factorise, factor, expand, therefore, conclusion.quadratic, expansion, trigonometry, Pythagoras.Humber, implies, necessary, turning point, transformation, polynomial, discriminant, real roots, repeated roots,number, implies, factor, expand, therefore, conclusion.magnitude, factor, factor, factor, factor, expand, therefore, conclusion.mutually exclusive, Venn diagram, tree diagram.quadratic, expansion, trigonometry, Pythagoras.Polynomial, discriminant, real roots, repeated roots,Vector, scalar, magnitude, direction,magnitude, factor, conclusion.factor, expand, therefore, conclusion.discrete random variable, uniform, cumulative	intercepts.	quartic, conjecture,	positive skew,	factorisation,	0,	root, prime, infinity,
root, manipulate, sketch, plot, quadratic, maximum, minimum, turning point, transformation, polynomial, discriminant, real magnitude, discriminant, real conclusion, discriminant, real conclusion, discriminant, real conclusion, discriminant, real conclusion, discriminant, real conclusion, discriminant, real conclusion, discriminant, real conclusion, conclusion, discriminant, real conclusion, discriminant, real conclusion, discriminant, real conclusion, discriminant, real conclusion, discriminant, real conclusion, conclusion, discriminant, real conclusion, discriminant, real conclusion, cumulative		prediction, rational	negative skew	quadratic, cubic,	independent,	square number,
sketch, plot, quadratic, maximum, minimum, turning point, transformation, polynomial, discriminant, real roots, repeated roots,converse, fully factor, factor, expand, therefore, conclusion.number, implies, necessary, sufficient, converse, fully factorise, factor, expand, therefore, conclusion.diagram.trigonometry, Pythagoras.indication, polynomial, discriminant, real roots, repeated roots,vector, scalar, direction,number, implies, necessary, sufficient, converse, fully factorise, factor, expand, therefore, conclusion.diagram.trigonometry, Pythagoras.indication, polynomial, discriminant, real roots, repeated roots,vector, scalar, direction,nagnitude, direction,output conclusion.indication, put variable, uniform, cumulative	Factorise, intersection,	number, implies,		quartic, conjecture,	mutually exclusive,	quadratic,
maximum, minimum, turning point, transformation, polynomial, discriminant, realfactorise, factor, expand, therefore, conclusion.necessary, sufficient, converse, fully factorise, factor, expand, therefore, conclusion.Pythagoras.Maximum, minimum, transformation, transformation, translation, polynomial, discriminant, real roots, repeated roots,factorise, direction,Binomial, probability, discrete discrete random conclusion.Pythagoras.Maximum, minimum, transformation, transformation, translation, discreter, conclusion.Pythagoras.Pythagoras.Maximum, minimum, transformation, transformation, translation, discreter, conclusion.Binomial, probability, discrete discrete random variable, uniform, cumulativePythagoras.	· · ·	• •		•	Venn diagram, tree	•
turning point, transformation, translation, polynomial, iconclusion,expand, therefore, conclusion.sufficient, converse, fully factorise, factor, expand, therefore, conclusion.Binomial, probability, discrete distribution, discrete random variable, uniform, cumulative	sketch, plot, quadratic,	converse, fully		number, implies,	diagram.	trigonometry,
transformation, translation, polynomial,conclusion.fully factorise, factor, expand, therefore, conclusion.probability, discrete distribution, discrete random variable, uniform, cumulative	maximum, minimum,	factorise, factor,		necessary,		Pythagoras.
translation, polynomial, discriminant, realVector, scalar, magnitude, direction,factor, expand, therefore, conclusion.distribution, discrete random variable, uniform, cumulative	•••				,	
polynomial, discriminant, real roots, repeated roots,Vector, scalar, magnitude, direction,therefore, conclusion.discrete random variable, uniform, cumulative	transformation,	conclusion.		fully factorise,	probability, discrete	
discriminant, realmagnitude,conclusion.variable, uniform,roots, repeated roots,direction,conclusion.cumulative	translation,			factor, expand,	distribution,	
roots, repeated roots, direction, cumulative				,		
				conclusion.		
factor theorem. component, parallel, Force newtons probabilities	· ·	,				
	factor theorem,	component, parallel,		Force, newtons,	probabilities.	
perpendicular, mass, weight,		perpendicular,		mass, weight,		



### COMPASSION



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quotie	nt, intercepts,	modulus, dimension,	gravity, tension,	Hypotheses,	_
inequa	ility, asymptote.	ratio, collinear,	thrust,	significance level,	
		scalar product,	compression, air	one-tailed test, two-	
Equation	on, bisect,	position vectors.	resistance, reaction,	tailed test, test	
	, chord, circle,		driving force,	statistic, null	
circum	circle,	Population, census,	braking force,	hypothesis,	
coeffic	ient, constant,	sample, sampling	resultant, force	alternative	
	ter, gradient,	unit, sampling frame,	diagram,	hypothesis, critical	
	enuse, intercept,	simple random	equilibrium,	value, critical	
isoscel	es, linear,	sampling, stratified,	inextensible, light,	region, acceptance	
midpoi	int, parallel,	systematic, quota,	negligible, particle,	region, p-value,	
	ndicular,	opportunity	smooth, uniform,	binomial model,	
propor		(convenience)	pulley, string,	accept, reject,	
	oras, radius,	sampling.	retardation, free	sample, inference.	
-	ngle, segment,		particle.		
semicii		Mean, median,			
	aneous,	mode, variance,			
tangen	nt.	standard deviation,			
		range, interquartile			
		range,			
		interpercentile			
		range, outlier,			
		skewness,			
		symmetrical, positive			
		skew, negative skew.			
		Modelling, smooth,			
		rough, light,			
		inelastic,			
		inextensible,			
		particle, rigid body,			
		mass, weight, rod,			

	CURIOSITY		COMPASSION	J	COURAGE	
		plane, lamina, length, distance (m), displacement (m), velocity (m s-1), speed (m s-1), acceleration (m s-2), force (N), retardation (m s-2), newtons (N), scalar, vector, direction, magnitude, (normal) reaction, friction, tension, thrust, compression				
		Distance (m), displacement (m), speed (m s-1), velocity (m s-1), acceleration (m s-2), retardation (m s-2), deceleration (m s-2), scalar, vector, 2D, linear, area, trapezium, gradient, equations of motion, gravity, constant, 9.8 m s-2, vertical.				
Assessment:	Unit Assessments Baseline Assessment	Unit Assessments	Unit Assessments Summative Assessment 1	Unit Assessments	Unit Assessments	Unit Assessments Summative Assessment 2

	CURIOSITY		COMPASSION	J	COURAGE	Q E M S
Key/Historical misconceptions in this unit:	What it means to have a real root.	Confusion of constant and variable acceleration, distance time graphs and velocity time graphs	Recalling basic trigonometry Differentiation for first principals, understanding limits, integrating with respect to the incorrect variable	Using the correct base for natural logs, rearranging logs and exponentials, laws of logs	Two tailed and one tailed, level of significance, interchanging horizontal and vertical transformations formations, interchanging stretch and compressions of transformations Incorrectly using the tabulated values. Integer values for binomial distribution, binomial PD and binomial CD.	Whether to differentiate or integrate for mechanics
Sequencing:	We have chosen to sequent of the sequence of t	lents with the skills for				