Curriculum Map Subject: Year Group:

	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Content- WHAT will be learned? What	<u>Pure</u>	<u>Pure</u>	<u>Pure</u>	<u>Pure</u>	<u>Pure</u>	<u>Pure</u>
previous learning can be linked? Why this	Algebraic Methods	Binomial Expansion	Trigonometry and Modelling	<u>Differentiation</u>	<u>Integration</u>	<u>Vectors</u>
order/ sequence ?	Proof by	Expanding (1+x) ⁿ	Addition Formulae	Differentiating Sin x	Integrating Standard	3-D Coordinates
order, sequence.	Contradiction	Expanding (a+bx) ⁿ	 Using the addition 	and Cos x	Functions	Vectors in 3-D
	Algebraic Fractions	Using Partial	Angle Formulae	Differentiating	Integrating f(ax+b)	Solving Geometric
	Partial Fractions	Fractions	Double Angle	Exponentials and	Using Trig Identities	Problems
We sequence our curriculum in this	Repeated factors Alankasia Birisia a	Radians	Formulae Cobine Trie	Logarithms • The Chain Rule	Reverse Chain Rule	Application to Machanian
order to reduce cognitive load by	 Algebraic Division Functions and Graphs 	Radian MeasureArc Length	 Solving Trig Equations 	The Product Rule	 Integration by Substitution 	Mechanics Exam Preparation
drawing on prior knowledge and	Modulus function	Areas of sectors and	Simplifying aCos x ±	The Product Rule The Quotient Rule	Integration by Parts	Practice Exam papers
logically plan episodes of learning so	Functions and	segments	bSin x	Differentiating Trig	Partial Fractions	Past Questions
that they accumulate in small stages,	Mappings	Solving Trig	Proving Trig	Functions	Finding Areas	Exam Technique
securing understanding at one stage	Composite Functions	equations	Identities	Parametric	The Trapezium Rule	Examiners Reports
before moving on to the next.	Inverse functions	Small Angle	Modelling with Trig	Differentiation	Solving Differential	Use of Mark Schemes
zerore mornig on to the next	Graphs of Modulus	Approximations	Functions	Implicit	Equations	<u>Statistics</u>
Skills are revisited as via interlegued	Functions	Trigonometric Functions	Parametric Equations	Differentiation	Modelling with	Exam Preparation
Skills are revisited as via interleaved	 Combining 	Secant, Cosecant	Parametric	Using Second	Differential	 Practice Exam papers
starters and retrieval practise	Transformations	and Cotangent	Equations	Derivatives	Equations	 Past Questions
throughout the year.	Solving Modulus	Graphs of Sec x,	Using Trig Identities	Rates of Change	Statistics	Exam Technique
	Problems	Cosec x and Cot x	Curve Sketching	Numerical Methods	The Normal Distribution	 Examiners Reports
Knowledge of course content is covered	Sequences and Series	Trig Identities	Points of	Locating Roots	The Standard	Use of Mark Schemes
during early stages of the curriculum and	Arithmetic	 Inverse Trig Functions 	Intersection	Iteration	Normal Distribution	Mechanics
then built upon at spaced intervals	Sequences	Statistics	 Modelling with Parametric 	The Newton- Raphson Method	• Finding μ and σ	Exam Preparation
allowing skills to be improved upon over	Arithmetic SeriesGeometric	Conditional Probability	Equations	Applications to	 Approximating a binomial 	Practice Exam papers Past Questions
time.	Sequences	Set Notation	Statistics	Modelling	Distribution	Past QuestionsExam Technique
ume.	Geometric Series	Conditional	Conditional Probability	Statistics	Hypothesis Testing	Examiners Reports
	Sum to Infinity	Probability	Probability	The Normal Distribution	with the Normal	Use of Mark Schemes
	Sigma Notation	Conditional	Formulae	The Normal	Distribution	o osc of Mark Schemes
	Recurrence Relations	Probability in Venn	 Tree Diagrams 	Distribution	<u>Mechanics</u>	
	Modelling with	Diagrams	<u>Mechanics</u>	 Finding Probabilities 	Further Kinematics	
	Series	Mechanics	<u>Projectiles</u>	for Normal	Vectors in	
	<u>Statistics</u>	Forces and Friction	Horizontal Projection	Distribution	Kinematics	
	Regression, Correlation and	Resolving Forces	Horizontal and Vertical	The Inverse Normal	Vector Methods	
	<u>Hypothesis Testing</u>	Inclined Planes	Components	Distribution	with Projectiles	
	Exponential Models	Friction	Projection at any Angle	Mechanics Applications of Forces	Variable Assolutation in One	
	Measuring Garage Lating		Projectile Motion	Static Particles	Acceleration in One Dimension	
	Correlation		Formulae	Modelling with	Differentiating	
	 Hypothesis Testing for Zero Correlation 			Particles	Vectors	
	Mechanics			Friction and Static	 Integrating Vectors 	
	Moments			Particles	integrating vectors	
	Moments			Static		
	Resultant Moments			 Rigid Bodies 		
	Equilibrium			 Dynamics and 		
	 Centres of Mass 			Inclined Planes		
	 Tilting 			 Connected Particles 		
Skills- What will be developed?	Learners develop their	Learners develop their	Learners develop their	Learners develop their	Learners develop their	Learners develop their
	mathematical fluency in a	mathematical fluency in a	mathematical fluency in a	mathematical fluency in a	mathematical fluency in a	mathematical fluency in a
	range of areas through a	range of areas through a	range of areas through a	range of areas through a	range of areas through a	range of areas through a
	-	concrete, pictorial and	concrete, pictorial and	concrete, pictorial and	concrete, pictorial and	concrete, pictorial and
	concrete, pictorial and		1		1	
	abstract (CPA) approach.	abstract (CPA) approach.	abstract (CPA) approach.	abstract (CPA) approach.	abstract (CPA) approach.	abstract (CPA) approach.
	Learners apply their	Learners apply their	Learners apply their	Learners apply their	Learners apply their	Learners apply their
	understanding to be able to	understanding to be able to	understanding to be able to	understanding to be able to	understanding to be able to	understanding to be able to

Key 'How'/'Why' Questions- What powerful knowledge will be gained? What areas/themes/concepts will be explored?	solve problems in a range of different contexts. Learners explain their reasoning when identifying solutions to problems and when responding to mathematical statements. How to apply the content listed above in the real-world address why the skills are learned in school. Contextual questions related to the learning designed to embed the ideas to allow the concepts to be used later in the curriculum where they are built upon in other topics that rely of the fluency of these skills. All skills listed above are used later in the course, so it is essential to build solid foundations before moving on.	solve problems in a range of different contexts. Learners explain their reasoning when identifying solutions to problems and when responding to mathematical statements. How to apply the content listed above in the realworld address why the skills are learned in school. Contextual questions related to the learning designed to embed the ideas to allow the concepts to be used later in the curriculum where they are built upon in other topics that rely of the fluency of these skills. All skills listed above are used later in the course, so it is essential to build solid foundations before moving on.	solve problems in a range of different contexts. Learners explain their reasoning when identifying solutions to problems and when responding to mathematical statements. How to apply the content listed above in the realworld address why the skills are learned in school. Contextual questions related to the learning designed to embed the ideas to allow the concepts to be used later in the curriculum where they are built upon in other topics that rely of the fluency of these skills. All skills listed above are used later in the course, so it is essential to build solid foundations before moving on.	solve problems in a range of different contexts. Learners explain their reasoning when identifying solutions to problems and when responding to mathematical statements. How to apply the content listed above in the realworld address why the skills are learned in school. Contextual questions related to the learning designed to embed the ideas to allow the concepts to be used later in the curriculum where they are built upon in other topics that rely of the fluency of these skills. All skills listed above are used later in the course, so it is essential to build solid foundations before moving on.	solve problems in a range of different contexts. Learners explain their reasoning when identifying solutions to problems and when responding to mathematical statements. How to apply the content listed above in the realworld address why the skills are learned in school. Contextual questions related to the learning designed to embed the ideas to allow the concepts to be used later in the curriculum where they are built upon in other topics that rely of the fluency of these skills. All skills listed above are used later in the course, so it is essential to build solid foundations before moving on.	solve problems in a range of different contexts. Learners explain their reasoning when identifying solutions to problems and when responding to mathematical statements. How to apply the content listed above in the realworld address why the skills are learned in school. Contextual questions related to the learning designed to embed the ideas to allow the concepts to be used later in the curriculum where they are built upon in other topics that rely of the fluency of these skills. All skills listed above are used later in the course, so it is essential to build solid foundations before moving on.
SEND- how will support be seen? Seating plans? Simplified questions?	 SEND and identified pupils placed strategically to ensure the best possible support. Colour copies for all Irlen's students All SEND notes taken into consideration for the pupils that this affects. Support given to pupils who struggle or have been identified as weaker in the groups. Classrooms and boards uncluttered to ensure an optimal learning environment (only relevant information given) 	 SEND and identified pupils placed strategically to ensure the best possible support. Colour copies for all Irlen's students All SEND notes taken into consideration for the pupils that this affects. Support given to pupils who struggle or have been identified as weaker in the groups. Classrooms and boards uncluttered to ensure an optimal learning environment (only relevant information given) 	 SEND and identified pupils placed strategically to ensure the best possible support. Colour copies for all Irlen's students All SEND notes taken into consideration for the pupils that this affects. Support given to pupils who struggle or have been identified as weaker in the groups. Classrooms and boards uncluttered to ensure an optimal learning environment (only relevant information given) 	 SEND and identified pupils placed strategically to ensure the best possible support. Colour copies for all Irlen's students All SEND notes taken into consideration for the pupils that this affects. Support given to pupils who struggle or have been identified as weaker in the groups. Classrooms and boards uncluttered to ensure an optimal learning environment (only relevant information given) 	 SEND and identified pupils placed strategically to ensure the best possible support. Colour copies for all Irlen's students All SEND notes taken into consideration for the pupils that this affects. Support given to pupils who struggle or have been identified as weaker in the groups. Classrooms and boards uncluttered to ensure an optimal learning environment (only relevant information given) 	 SEND and identified pupils placed strategically to ensure the best possible support. Colour copies for all Irlen's students All SEND notes taken into consideration for the pupils that this affects. Support given to pupils who struggle or have been identified as weaker in the groups. Classrooms and boards uncluttered to ensure an optimal learning environment (only relevant information given)

Assessment- What? Why?	Gap task Pure	Mechanics and Stats	Mock exam – Pure	Stats assessment	Mechanics assessment	Mock exams – Pure and
,		assessments	Mini quizzes in lesson	Mini quizzes in lesson	Mini quizzes in lesson	Applied
	Mini quizzes in lesson	Mini quizzes in lesson	4	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	4	Mini quizzes in lesson
	·	•				
What memory for learning skills will be	Interleaved starters and	Interleaved starters and	Interleaved starters and	Interleaved starters and	Interleaved starters and	Interleaved starters and
required- modelling? Concrete answers?	retrieval practise, regular	retrieval practise, regular	retrieval practise, regular	retrieval practise, regular	retrieval practise, regular	retrieval practise, regular
Retrieval?	skills checks and mini	skills checks and mini	skills checks and mini	skills checks and mini	skills checks and mini	skills checks and mini
	assessments and model	assessments and model	assessments and model	assessments and model	assessments and model	assessments and model
	answers.	answers.	answers.	answers.	answers.	answers.
	Regular homework tasks to	Regular homework tasks to	Regular homework tasks to	Regular homework tasks to	Regular homework tasks to	Regular homework tasks to
	check understanding	check understanding	check understanding	check understanding	check understanding	check understanding
Literacy- reading, extended accurate	Key words/terms	Key words/terms	Key words/terms	Key words/terms	Key words/terms	Key words/terms
writing and oracy opportunities	emphasised and highlighted	emphasised and highlighted	emphasised and highlighted	emphasised and highlighted	emphasised and highlighted	emphasised and highlighted
	in lessons.	in lessons.	in lessons.	in lessons.	in lessons.	in lessons.
	Reading and breaking down	Reading and breaking down	Reading and breaking down	Reading and breaking down	Reading and breaking down	Reading and breaking down
	questions to allow all	questions to allow all	questions to allow all	questions to allow all	questions to allow all	questions to allow all
	learners to access the skills	learners to access the skills	learners to access the skills	learners to access the skills	learners to access the skills	learners to access the skills
	needed.	needed.	needed.	needed.	needed.	needed.
Numeracy/computing skills	All topics require good	All topics require good	All topics require good	All topics require good	All topics require good	All topics require good
-	numeracy skills	numeracy skills	numeracy skills	numeracy skills	numeracy skills	numeracy skills
Character development	Cold calling ensures that all	Cold calling ensures that all	Cold calling ensures that all	Cold calling ensures that all	Cold calling ensures that all	Cold calling ensures that all
character development	pupils are required to answer	pupils are required to	pupils are required to	pupils are required to	pupils are required to	pupils are required to
	questions as there is a no opt	answer questions as there is	answer questions as there is	answer questions as there is	answer questions as there is	answer questions as there is
	out culture. Pupils with	a no opt out culture. Pupils	a no opt out culture. Pupils	a no opt out culture. Pupils	a no opt out culture. Pupils	a no opt out culture. Pupils
	Anxiety around this are	with Anxiety around this are	with Anxiety around this are	with Anxiety around this are	with Anxiety around this are	with Anxiety around this are
	managed well and the	managed well and the	managed well and the	managed well and the	managed well and the	managed well and the
	teachers ensure that they	teachers ensure that they	teachers ensure that they	teachers ensure that they	teachers ensure that they	teachers ensure that they
	are included but feel	are included but feel	are included but feel	are included but feel	are included but feel	are included but feel
	supported. Real life examples	supported. Real life	supported. Real life	supported. Real life	supported. Real life	supported. Real life
	and experiences are called	examples and experiences	examples and experiences	examples and experiences	examples and experiences	examples and experiences
	upon regularly.	are called upon regularly.	are called upon regularly.	are called upon regularly.	are called upon regularly.	are called upon regularly.
Equality /Diversity opportunities	Real world e.g's used	Real world e.g's used	Real world e.g's used	Real world e.g's used	Real world e.g's used	Real world e.g's used
Equality/Diversity opportunities	Super curriculum available	Super curriculum available	Super curriculum available	Super curriculum available	Super curriculum available	Super curriculum available
	for all learners.	for all learners.	for all learners.	for all learners.	for all learners.	for all learners.
	Where the curriculum lends	Where the curriculum lends	Where the curriculum lends	Where the curriculum lends	Where the curriculum lends	Where the curriculum lends
	itself, a range of diverse	itself, a range of diverse	itself, a range of diverse	itself, a range of diverse	itself, a range of diverse	itself, a range of diverse
	careers are incorporated into	careers are incorporated	careers are incorporated	careers are incorporated	careers are incorporated	careers are incorporated
	the real-life applications of	into the real-life applications	into the real-life applications	into the real-life applications	into the real-life applications	into the real-life applications
	the mathematics.	of the mathematics.	of the mathematics.	of the mathematics.	of the mathematics.	of the mathematics.
	the mathematics.	of the mathematics.	of the mathematics.	of the mathematics.	of the mathematics.	of the mathematics.
Homework/Independent learning	Use of exam questions and	Use of exam questions and	Use of exam questions and	Use of exam questions and	Use of exam questions and	Use of exam questions and
	Uplearn to embed the skills	Uplearn to embed the skills	Uplearn to embed the skills	Uplearn to embed the skills	Uplearn to embed the skills	Uplearn to embed the skills
	required	required	required	required	required	required
CIAG coverage/links	Super curriculum activities in	Super curriculum activities in	Super curriculum activities in	Super curriculum activities	Super curriculum activities in	Super curriculum activities in
	maths.	maths.	maths.	in maths.	maths.	maths.
	Real life examples and uses	Real life examples and uses	Real life examples and uses	Real life examples and uses	Real life examples and uses	Real life examples and uses
	for the topics where	for the topics where	for the topics where	for the topics where	for the topics where	for the topics where
	appropriate.	appropriate.	appropriate.	appropriate.	appropriate.	appropriate.