Curriculum Map						
Subject: Maths						
Year 11 Foundation						

	Autumn 1	**Autumn 2**	**Spring 1**	**Spring 2**	**Summer 1 Foundation**	**Summer 2 Foundation**
Knowledge /Skills	**Algebra and Graphs** solve linear equations, graphical solutions	**Probability** relative frequency, sample spaces, venn diagrams, tree diagrams, addition law	**Congruence and Similarity,** similar triangles, similar shapes, congruent triangles	**Transformations,** reflection, rotation, enlargement, translation	**Exams**	**Exams**
	Quadratic Graphs, key points on a quadratic graph	**Statistical measures** sampling and bias	**Vectors** column vectors, vector arithmetic	**Revision**		
	Sketching Graphs sketch exponential and polynomial functions	**Collecting and representing data** pie charts, bar charts vertical line graphs	**Construction and loci,** angle bisectors, perpendicular bisectors, loci	**Revision**		
	Direct and Inverse proportion, problem solving	**Scatter Graphs** correlation, line of best fit, outliers		**Revision**		
	Growth and Decay simple interest			**Revision**		
	identify special characteristics of non linear graphs, identify roots of a quadratic,	addition, subtraction, fractions, percentages, know that probabilities sum to 1. Undestand	Identify characteristics of SSS SAS RHS , use scale factors for similarity, add column	Understand the difference between different transformations, what		

Skills	decided on the shape of the graph, identify the y intercept of a graph, use the correct mulitplier for growth and decay interest questions	that branches on the tree diagram will sum to 1. Be able to plot graphs and label axis accurately, be able to use an appropriate scale . Correlation and relationship between variables.	vectors and use translations, use a compass and ruler accurately.	a mirror line is and what effect a scale factor can have on enlargement, identify linear lines		
Key Questions	How can you tell if a quadratic graph will be a positive shape or a negative shape? what is the different between an exponential and a reciprocal graph? give an example of where simple interest calculations could be used?	What do all probabilities add up to? What factors can cause bias when sampling ? Can you graph a negative, positive and no correlation graph?	Why is AAA not a measure for congruency? Can you bisect an angle? what does a perpendicular bisector allow us to do? Give an example of loci in real life?	What is the reflection line? Can a scale factor be negative as well as positive?		

Assessment	Students sit an end of term test at the end of each term, these are marked by the teacher and a full ReACT to the test is completed in lesson, teachers will use a visualiser to model the answers and identify marks and common misconceptions. Continued low stake questioning in class. Peer mentoring. AFL whiteboards and encouragement **AO1: Use and apply standard techniques** Students should be able to: -accurately recall facts, terminology and definitions. -use and interpret notation correctly. -accurately carry out routine procedures or set tasks requiring multi-step solutions. **AO2: Reason, interpret and communicate mathematically** Students should be able to: -make deductions, inferences and draw conclusions from mathematical information. -construct chains of reasoning to achieve a given result interpret and communicate information accurately. -present arguments and proofs. -assess the validity of an argument and critically evaluate a given way of presenting information. **AO3: Solve problems within mathematics and in other contexts** Students should be able to: -translate problems in mathematical or non-mathematical contexts into a process or a series of mathematical processes. -make and use connections between different parts of mathematics. -interpret results in the context of the given problem. -evaluate methods used and results obtained. -evaluate solutions to identify how they may have been affected by assumptions made.

Literacy/ numeracy/ SMSC/ Character	**Literacy:Key word as above, additional knowledge organisers provided to students at the beginning of a new topic , collins dictionary definitions shared https://www.collinsdictionary.com/word-lists/mathematics-mathematical-terms. Knowledge organisers will be stuck into books at the beginning of every new topic, to promote literacy and key vocabulary and skills.** **Freya Model, defining mats:(definition, facts, examples and non examples, including misconceptions). VCOP support models to aid students in using connectives and other language devices to explain a mathematical model or compare data.https://www.missbsresources.com/maths-resources/literacy-within-mathematics** **Numeracy:Key skills are outlined** **Character/SMSC/:https://www.bbc.co.uk/bitesize/tags/zrsg6v4/jobs-that-use-maths/1 links to jobs that relate to maths are relayed regularly in lessons, opportunities for cross curricular links outlined in scheme of work.** **Oracy: encourage teacher-led discussion with equal emphasis on speaking and listening. Group work/paired work. Teacher models correct mathematical processes. Opportunities for logical reasoning and dialogue e.g via Inquiry Maths and reasoning/proof tasks. No hands up questioning approached used**
Enrichment opportunities and futures	Intermediate maths challenge Revision sessions after school, Holiday revision sessions STEM club Statistics project -Real life application to collate and analyse data Maths buddies- opportunities to work with different ages groups and ability Trips, outside speakers and futures links within curriculum.