Subject overview: (KS4 Maths)

Subject Rationale (Intent) linked to whole school curriculum mission

In brief (no more than four sentences)

The aim of the Mathematics Department is to encourage and develop mathematical independence, providing all pupils with the functional skills essential for everyday life. We believe in promoting an understanding of mathematical concepts, employing a problem solving approach to develop transferable skills and fostering an appreciation of mathematics as a creative and beautiful subject.
Maths at St Edmund's develops a love for the subject through all students knowing the satisfaction of solving mathematical problems. We enable students to think for themselves, giving them the mathematical knowledge and skills to confidently justify their answers to today and tomorrow's, abstract and real life problems. Students will be able to apply their skills across the curriculum and beyond; they will understand that mathematics is a universal language that underpins everything.

Additional details

YEAR 10 F			
TERM	**Topic sequence** **(What are you teaching?)**	**Topic sequence rationale** **(Why are you teaching this? How does it link to prior learning? Any notable links to St Edmund's curriculum mission**	**Main method of assessment?**
Term 1:1	• **Calculator methods** • **Pythagoras** • **Quadratic equations**	Calculator methods **Why taught?** This is taught to help students answer questions that involve estimation. Students should learn how to check calculations using approximation and estimation, including answers obtained using technology. This topic enables students to use a scientific calculator effectively when carrying out complex calculations, solve money problems using a calculator and use a calculator to convert between units of time and units of speed. **Prior Learning** **Why now?** Pythagoras **Why taught?** Students should be able to apply angle facts, triangle congruence, similarity and properties of quadrilaterals to conjecture and derive results about angles and sides, including Pythagoras' Theorem and understand the fact that the base angles of an isosceles triangle are equal, and use known results to obtain simple proofs. For this topic, students need to know the formulae for: Pythagoras' theorem ($a^2 + b^2 = c^2$) and the trigonometric ratios, where they can apply them to find angles and lengths in right-angled triangles and, where possible, general triangles in 2D and 3D figures. **Prior Learning** **Why now?** Quadratic equations **Why taught?** It is important that students understand and use the concepts and vocabulary of expressions, equations, formulae, identities, inequalities, terms and factors. They need to be able to identify and interpret roots, intercepts and turning points of quadratic functions graphically; deduce roots algebraically. This topic shows how many different kinds of problems starting from completely different contexts can become quadratic equations.Students learn to translate simple situations or procedures into algebraic expressions or formulae; derive an equation, solve the equation and interpret the solution. **Prior Learning** **Why now?**	**GCSE assessment based on prior topics covered this half term** **Topic related & mixed written and online homeworks**

	• **Trigonometry 1**	Trigonometry 1 **Why taught?** Trigonometry is taught to help students compare lengths, areas and volumes using ratio notation; make links to similarity (including trigonometric ratios) and scale factors. Students should know the exact values of sin θ and cos θ for θ = 0°, 30°, 45° , 60° and 90° and know the exact value of tan θ for θ = 0°, 30°, 45° and 60°. This is taught so that students are able to use the trigonometric ratios to find missing sides in a right angled triangle as well as use trigonometry and pythagoras to solve problems involving right angled triangles/isosceles triangles. **Prior Learning** **Why now?**	
Term 1:2	• **Circles 1** • **Drawing Straight Line Graphs** • **Equations of a straight line**	Circles 1 **Why taught?** The main objectives of this topic is to help students be able to find the circumference of a circle, find the perimeter of composite shapes involving parts of a circle, find the radius or the diameter of a circle when the circumference is given and use circumference to solve problems such as the revolutions of wheels and finding the area of a circle. **Why taught?** **Why now?** Drawing straight line graphs **Why taught?** Students should be able to plot graphs of equations that correspond to straight-line graphs in the coordinate plane; use the form y = mx + c to identify parallel lines; find the equation of the line through two given points, or through one point with a given gradient. Moreover, they should be able to solve linear equations in one unknown algebraically ; find approximate solutions using a graph. **Prior Learning** **Why now?** . Equations of a straight line **Why taught?** Students are taught how to find the gradient of a straight line graph, identify parallel and perpendicular lines from their equations. Students also need to find the equation of a parallel line through a given point, or a line given a point and a gradient. **Prior Learning** **Why now?**	**GCSE assessment based on prior topics covered this term** **Topic related & mixed written and online homeworks**

	• **Simultaneous Equations** • **Standard Form** • **Transformations 2** • **Inequalities**	<u>Simultaneous equations</u> **Why taught?** Students are taught how to solve two simultaneous equations in two variables algebraically; find approximate solutions using a graph. Students learn to translate simple situations or procedures into algebraic expressions or formulae; derive an equation, solve the equation and interpret the solution. **Prior Learning** **Why now?** <u>Standard Form</u> **Why taught?** Students are taught how to calculate with and interpret standard form , $A \times 10^n$, where $1 \leq A < 10$ and n is an integer. Students learn to Convert from ordinary form to standard form and vice versa. Students also learn to add, subtract, multiply and divide numbers given in standard form. They are also able to use a calculator to solve standard form problems. **Prior Learning** **Why now?** <u>Transformations</u> **Why taught?** Techniques such as enlarging a shape on a coordinate grid and describing this enlargement are taught to students. Therefore, students are taught the ability to identify, describe and construct congruent and similar shapes, including on coordinate axes, by considering rotation, reflection, translation and enlargement, including fractional scale factors. **Prior Learning** **Why now?** <u>Inequalities</u> **Why taught?** This topic enables students to represent and interpret inequalities on a number line; they are then taught how to list the integer values which satisfy a given inequality. This skill can then be used to find the smallest/largest integer values which satisfy a given linear inequality. **Prior Learning** **Why now?**	

Term 2:1	• **Measures & Accuracy** • **Proportion** • **Percentage Change** • **Circles 2**	Measures & Accuracy **Why taught?** Students need to be able to choose appropriate metric units for measuring given items. Students are taught to choose appropriate metric units for measuring given items. They are taught the density and distance formulae which they can rearrange to solve problems. **Prior Learning** **Why now?** Proportion **Why taught?** Students are taught how to express one number as a percentage of another, with and without a calculator. Also, they are taught how to increase and decrease by a percentage with and without a calculator. They are taught how to calculate using simple interest as well as increase and decrease an amount using a decimal multiplier. **Prior Learning** **Why now?** Percentage Change **Why taught?** Students are taught to define percentages as 'number of parts per hundred'; interpret percentages and percentage changes as a fraction or a decimal, and interpret these multiplicatively; express one quantity as a percentage of another; compare two quantities using percentages; work with percentages greater than 100%; solve problems involving percentage change, including percentage increase/decrease and original value problems, and simple interest including in financial mathematics. **Prior Learning** **Why now?** Circles 2 **Why taught?** At this stage, students are taught how to find arc lengths and the area of a sector in terms of π. They should know the formulae: circumference of a circle = $2\pi r = \pi d$, area of a circle = πr^2; calculate perimeters of 2D shapes, including circles; areas of circles and composite shapes	**GCSE assessment based on prior topics covered this half term** **Topic related & mixed written and online homeworks**

	• **Ratio** • **Trigonometry 2**	Ratio **Why taught?** Firstly, students are taught that they should divide a given quantity into two parts in a given part: part or part: whole ratio; express the division of a quantity into two parts as a ratio and then apply ratio to real contexts and problems. In addition, they are taught how to link ratios to fractions and use ratios to draw conversion graphs. Students learn how to express a multiplicative relationship between two quantities as a ratio or a fraction and relate ratios to fractions and to linear functions. **Prior Learning** **Why now?** Trigonometry 2 **Why taught?** Trigonometry is taught to help students Compare lengths, areas and volumes using ratio notation; make links to similarity, including trigonometric ratios, and scale factors. Students should know the exact values of sin θ and cos θ for θ = 0°, 30°, 45° , 60° and 90° and know the exact value of tan θ for θ = 0°, 30°, 45° and 60°. This is taught so that students are able to use the trigonometric ratios to find missing sides in a right angled triangle as well as use trigonometry and pythagoras to solve problems involving right angled triangles/isosceles triangles. **Prior Learning** **Why Now?**	
Term 2:2	• **Properties of Quadratic Functions**	Properties of Quadratic Functions **Why taught?** This is taught to help students identify and interpret roots, intercepts and turning points of quadratic functions graphically and be able to deduce roots algebraically. They should be able to recognise, sketch and interpret graphs of linear functions and quadratic functions, simple cubic functions and the reciprocal function. Students are also taught how to draw straight lines and quadratic graphs. **Prior Learning** **Why now?**	**GCSE assessment based on prior topics covered this term** **Topic related & mixed written and online homeworks**

	• **Calculating with roots and indices** • **3D Shapes** • **Volume of a prism** • **Volume & Surface Area**	<u>Calculating with roots and indices</u> **Why taught?** Students learn to use positive integer powers and associated real roots ; recognise powers of 2, 3, 4, 5. They should have the ability of finding the square roots of numbers and simplify using the rules of indices. **Prior Learning** **Why Now?** <u>3D Shapes</u> **Why taught?** This topic allows students to use conventional terms and notations. for example: points, lines, vertices, planes, parallel lines, perpendicular lines, right angles, polygons, regular polygons and polygons with reflection and/or rotation symmetries; use the standard conventions for labelling and referring to the sides and angles of triangles and draw diagrams from written description. **Prior Learning** **Why Now?** <u>Volume of a prism</u> **Why taught?** Some problems that involve this topic are finding the volume of a cube/cuboid, calculating the missing dimension of a cube when the volume is given and finding the volume of a prism by finding the area of the cross-section. Moreover, students learn to use the formula for density to find mass or density, having found the volume and being given the other value.This gives them the opportunity to practise rearranging equations. **Prior Learning** **Why Now?** <u>Volume & Surface area</u> **Why taught?** This topic gives students the opportunity to find the volume of pyramids, cones and spheres. They also learn to find the surface area of a cuboid and different prisms including triangular prisms, composite solids from cuboids and cylinders	
Term 3:1	• **Frequency Diagrams**	<u>Frequency Diagrams</u> Students are taught how to interpret, analyse and compare the distributions of data sets from univariate empirical distributions through: - appropriate graphical representation involving discrete, continuous and	**GCSE assessment based on prior topics covered this half term**

		grouped data - appropriate measures of central tendency and spread **Prior Learning** **Why Now?**	**Topic related & mixed written and online homeworks**
	• **Averages & Spread 2**	<u>Averages & Spread 2</u> **Why taught?** This topic allows students to be able to draw and interpret grouped frequency tables. They can learn how to find the estimated mean, modal class and the class containing the median, from a grouped frequency table. This topic allows students to make links to the normal distribution curve and where this distribution occurs in real life. **Prior Learning** **Why Now?**	
	• **Scatter graphs, time series & Correlation**	<u>Scatter graphs, time series & correlation</u> **Why taught?** Students are taught how to plot data on a scatter graph and interpret this data where they can recognise the type and strength of correlation. They learn to draw and use the line of best fit and understand the limitations of using the line of best fit ; they appreciate the idea that interpolation is more reliable than extrapolation. **Prior Learning** **Why Now?**	
	• **Kinematics Graphs**	<u>Kinematics Graphs</u> **Why taught?** In this topic, students are taught how to plot and interpret graphs of non-standard functions in real contexts, to find approximate solutions to problems such as simple kinematic problems involving distance, speed and acceleration. **Prior Learning** **Why Now?**	

	• **Real-life Graphs** • **Possibility spaces**	<u>Real-life Graphs</u> **Why taught?** Students learn to model situations using real life graphs and interpret the information represented as a graph. Moreover, students learn to use gradients to compare rates of change. **Prior Learning** **Why Now?** <u>Possibility spaces</u> **Why taught?** In this topic, students are taught how to construct theoretical possibility spaces for single and combined experiments with equally likely outcomes and use these to calculate theoretical probabilities. **Prior Learning** **Why Now?**	
Term 3:2	• **Tree Diagrams** • **Sketching Functions**	<u>Tree diagrams</u> **Why taught?** Tree diagrams are taught so that students can use it to show the outcomes of two or more events, to calculate probabilities for both independent and dependent events. **Prior Learning** **Why now?** <u>Sketching Functions</u> **Why taught?** Students need to be able to draw and recognise cubic, quadratic and reciprocal graphs. **Prior Learning** **Why now?**	**GCSE assessment based on prior topics covered this term** **Topic related & mixed written and online homeworks**

YEAR 10 H			
TERM	**Topic sequence** **(What are you teaching?)**	**Topic sequence rationale** **(Why are you teaching this? How does it link to prior learning? Any notable links to St Edmund's curriculum mission**	**Main method of assessment?**
Term 1:1	• **Simultaneous Equations** • **Measures & Accuracy** • **Approximate solutions**	Simultaneous equations **Why taught?** Students are taught how to solve two simultaneous equations in two variables algebraically; find approximate solutions using a graph. Students learn to translate simple situations or procedures into algebraic expressions or formulae; derive an equation, solve the equation and interpret the solution. They are expected to solve a simultaneous equation by elimination, substitution and graphically. **Prior Learning** Previously done elimination in year 9, will be repeated, alongside substitution, ready to use with quadratics. There will be more emphasis on applications and line to graphs. **Why now?** Measures & Accuracy **Why taught?** Students need to be able to choose appropriate metric units for measuring given items. Students are taught that they should choose appropriate metric units for measuring given items. For higher tier students, they are expected to find the upper and lower bounds of measurements given to a given accuracy and calculate the error interval. **Prior Learning** Converting metric units done previously ; emphasis now on bounds with significant figures and with calculations on compound measures (speed, density, pressure). **Why now?** Approximate solutions **Why taught?** Approximate solutions allows students to find approximate solutions to equations numerically using iteration. Students learn to use positive integer powers and associated real roots (square, cube and higher), recognise powers of 2, 3, 4, 5 and estimate powers and roots of any given positive number.	**GCSE assessment based on prior topics covered this half term** **Topic related & mixed written and online homeworks**

	• **Trigonometry 1** • **Transformations 2**	**Prior Learning** Square and cube roots met previously, now focus on higher powers and roots as proportion for future work on indices. **Why now?** <u>Trigonometry 1</u> **Why taught?** Trigonometry is taught to help students compare lengths, areas and volumes using ratio notation; make links to similarity (including trigonometric ratios) and scale factors. Students should know the exact values of sin θ and cos θ for θ = 0°, 30°, 45° , 60° and 90° and know the exact value of tan θ for θ = 0°, 30°, 45° and 60°. This is taught so that students are able to use the trigonometric ratios to find missing sides in a right angled triangle as well as use trigonometry and pythagoras to solve problems involving right angled triangles/isosceles triangles. **Prior Learning** Higher students will have used trigonometry in year 9, here emphasis is on use in practical problems, leading to 2 stage questions and using special values. **Why now?** <u>Transformations</u> **Why taught?** Techniques such as enlarging a shape on a coordinate grid and describing this enlargement are taught to students. Therefore, students are taught how to identify, describe and construct congruent and similar shapes, including on coordinate axes, by considering rotation, reflection, translation and enlargement, including fractional and negative scale factors. **Prior Learning** Previous work on rotation, reflection, translation will need briefly re-visiting, but focus here on developing enlargement to include fractional and negative side factors and combining transformations. **Why now?**	
Term 1:2	• **Transformations 2** • **Equations of straight line**	<u>Transformations 2 continued</u> <u>Equations of a straight line</u>	**GCSE assessment based on prior topics covered this term** **Topic related &**

		Why taught? Students are expected to plot graphs of equations that correspond to straight-line graphs in the coordinate plane; use the form $y = mx + c$ to identify parallel lines; use the form $y = mx + c$ to identify perpendicular lines; find the equation of the line through two given points, or through one point with a given gradient. Students are taught how to find the gradient of a straight line graph, identify parallel and perpendicular lines from their equations. Students also need to find the equation of a parallel line through a given point, or a line given a point and a gradient. **Prior Learning** Y = mx + c met in year 9, now focus on sketching lines leading to questions on finding lines given parallel or perpendicular gradients. **Why now?**	**mixed written and online homeworks**
	● **Circle Theorems**	<u>Circle Theorems</u> **Why taught?** Students are taught how to identify and apply circle definitions and properties, including: centre, radius, chord, diameter, circumference, tangent, arc, sector and segment. They then progress onto being able to apply and prove the standard circle theorems concerning angles, radii, tangents and chords, and use them to prove related results. Students are expected to be able to use the alternate segment theorem to find missing angles in circles. **Prior Learning** 4 main circle theorems will all be new work as will the 3 tangent rules. Emphasis on finding angles and giving reasons. Proof can be left till later. **Why now?**	
	● **Inequalities (Regions)**	<u>Inequalities (Regions)</u> **Why taught?** This topic enables students to represent and interpret inequalities on a number line; they are then taught how to list the integer values which satisfy a given inequality. This skill can then be used to find the smallest/largest integer values which satisfy a given linear inequality. Students need to be able to represent inequalities on a coordinate grid, including from written information. **Prior Learning** Work on basic linear inequalities will need some recap. Emphasis now on representing inequalities in a coordinate grid and describing regions. **Why now?**	

	• **Constructions & Loci** • **Proportion** • **Ratio & Scales**	<u>Constructions & Loci</u> **Why taught?** Students learn to accurately draw a triangle given two sides and an enclosed angle. Constructions in Year 11 involve students being able to construct the perpendicular bisector of a line, an angle bisector and angles of 30, 45, 60 and 90 degrees. Students should be able to measure line segments and angles in geometric figures, including interpreting maps and scale drawings and use of bearings. Students should be able to measure line segments and angles in geometric figures, including interpreting maps and scale drawings and use of bearings. **Prior Learning** Students will previously have constructed triangles. Emphasis here on using constructions to draw basic loci including perpendicular and angle bisectors using compasses. **Why now?** <u>Proportion</u> **Why taught?** Students are taught how to express one number as a percentage of another, with and without a calculator. Also, they are taught how to increase and decrease by a percentage with and without a calculator. They are taught how to calculate using simple interest as well as increase and decrease an amount using a decimal multiplier. Higher tier students should be able to solve problems involving direct and indirect proportion by forming an equation using the constant of proportionality. They should have a clear understanding that X is inversely proportional to Y is equivalent to X is proportional to 1/Y; construct and interpret equations that describe direct and indirect proportion. **Prior Learning** Need direct, inverse proportion here, using algebra to find the constant of proportionality. **Why now?** <u>Ratio & Scales</u> **Why taught?** Firstly, students are taught that they should divide a given quantity into two parts in a given part: part or part: whole ratio; express the division of a quantity into two parts as a ratio and then apply ratio to real contexts and problems. In addition, they are taught how to link ratios to fractions and use	

		ratios to draw conversion graphs. Students learn how to express a multiplicative relationship between two quantities as a ratio or a fraction and relate ratios to fractions and to linear functions. This allows students to simplify and share ratios as well as solve ratio problems. **Prior Learning** Students will previously have met direct proportions in terms of “recipe” type questions. Now I need an algebraic approach to finding a formula connecting 2 variables using a constant of proportionality for direct and inverse situations. **Why now?**	
Term 2:1	• **Percentage Change** • **Powers and roots**	<u>Percentage Change</u> **Why taught?** Students are taught to define percentages as ‘number of parts per hundred’; interpret percentages as a fraction or a decimal, and interpret these multiplicatively; express one quantity as a percentage of another; compare two quantities using percentages; work with percentages greater than 100%; solve problems involving percentage change, including percentage increase/decrease and original value problems, and simple interest including in financial mathematics. Percentage change problems involve questions like finding the original amount, given the result of a percentage change. **Prior Learning** All the above covered in KS3. Emphasis now on more fluent use of multipliers and finding percentage change in a wide variety of contexts. **Why now?** <u>Powers and roots</u> **Why taught?** This topic allows students to apply systematic listing strategies including use of the product rule for counting. They learn how to use positive integer powers and associated real roots; estimate powers and roots of any given positive number. Some problems involve systematic processing and understanding of the terms: product, square, cube, sum, prime,square root, cube root. **Prior Learning** Recap of KS3 work used as preparation for work on surds. Emphasis on square, cube and higher roots. **Why now?**	**GCSE assessment based on prior topics covered this half term** **Topic related & mixed written and online homeworks**

	• **Surds** • **Linear and Quadratic Functions** • **Properties of Quadratic Functions** • **Kinematics Graphs**	<u>Surds</u> **Why taught?** Students use surds to calculate answers in their exact form; they learn to simplify surd expressions involving squares and rationalise denominators. **Prior Learning** New topic, needs careful introduction, lots of practice on basic simplification. Moving onto expanding brackets and rationalising denominators. **Why now?** <u>Linear and Quadratic Functions</u> **Why taught?** Students need to be able to plot graphs of equations that correspond to straight-line graphs in the coordinate plane; use the form y= $mx + c$ to identify parallel lines; use the form $y = mx + c$ to identify perpendicular lines; find the equation of the line through two given points, or through one point with a given gradient. In addition, they also need to be able to recognise, sketch and interpret graphs of linear functions and quadratic functions, simple cubic functions and the reciprocal function $y = 1/x$ with $x \neq 0$, exponential functions and the trigonometric functions. **Prior Learning** Will previously have sketched straight lines. Here emphasis on plotting curves to include cubic and reciprocal graphs. **Why now?** <u>Properties of Quadratic Functions</u> **Why now?** Properties of quadratic functions that students should look out for are the roots, the turning point and the line of symmetry. **Prior Learning** Having learnt how to plot graphs now looking to identify key features and label graph appropriately. **Why now?** <u>Kinematics Graphs</u> **Why taught?** In this topic, students are taught how to plot and interpret graphs of non-standard functions in real contexts, to find approximate solutions to problems such as simple kinematic problems involving distance, speed and acceleration.The grade 8 questions involve being able to find the acceleration and distance travelled from a speed-time graph.	

		Prior Learning Students will have carried out speed, distance, time calculations in KS3, now emphasising on using gradients to find speed and acceleration and area to find distance. **Why Now?**	
Term 2:2	• **3D Shapes** • **Volume of a prism** • **Averages & Spread 2**	<u>3D Shapes</u> **Why taught?** This topic allows students to use conventional terms and notations, for example: points, lines, vertices, edges, planes, parallel lines, perpendicular lines, right angles, polygons, regular polygons and polygons with reflection and/or rotation symmetries; use the standard conventions for labelling and referring to the sides and angles of triangles and draw diagrams from written description. Students should be able to recognise and draw plans and elevations of 3D shapes. **Prior Learning** Definitions covered in KS3 now focus on labelling of angles and use of plans and elevations before tackling work on volume and surface area. **Why Now?** <u>Volume of a prism</u> **Why taught?** Some problems that involve this topic are finding the volume of a cube/cuboid, calculating the missing dimension of a cube when the volume is given and finding the volume of a prism by finding the area of the cross-section. Moreover, students learn to use the formula for density to find mass or density, having found the volume and being given the other value. This gives them the opportunity to practise rearranging equations. **Prior Learning** Will have met volume equals cross sectional area time length in KS3. Now emphasis on cylinders, including practical problems involving mass and density. **Why Now?** <u>Averages & Spread 2</u> **Why taught?** This topic allows students to be able to draw and interpret grouped frequency tables. They can learn how to find the estimated mean, modal class and the class containing the median, from a grouped frequency table. This topic allows students to make links to the normal distribution curve and where this distribution occurs in real life. Students are taught how to interpret, analyse	**GCSE assessment based on prior topics covered this term** **Topic related & mixed written and online homeworks**

	• **Cumulative frequency, box plots and histograms** • **Volume & Surface Area**	and compare the distributions of data sets from univariate empirical distributions through: - appropriate graphical representation involving discrete, continuous and grouped data - appropriate measures of central tendency and spread **Prior Learning** 3 averages and range covered in KS3. Now focus on calculations from frequency tables, with grouped data, and drawing comparisons. **Why Now?** <u>Cumulative frequency, box plots and histograms</u> **Why taught?** Students are expected to construct and interpret diagrams for grouped discrete data and continuous data, i.e. histograms with equal and unequal class intervals and cumulative frequency graphs, and know their appropriate use. Students are taught how to interpret, analyse and compare the distributions of data sets from univariate empirical distributions through: - appropriate graphical representation involving discrete, continuous and grouped data - appropriate measures of central tendency and spread **Prior Learning** Cumulative frequency taught in year 9, will need repeating and developed to produce box plots and draw comparisons. **Why Now?** <u>Volume & surface area</u> **Why taught?** Students should know the formulae for the circumference of a circle and the area of a circle which allows them to calculate perimeters of 2D shapes, including circles; areas of circles and composite shapes. They should be familiar with finding the surface area and volume of cuboids, prisms, cones, spheres. **Prior Learning** Circle work done in detail in year 9. Now emphasis on 3D curved shapes, introducing formulae and their use forward and backwards. **Why Now?**	
Term 3:1	• **Scatter Graphs and Correlation**	<u>Scatter graphs and correlation</u> **Why taught?**	**GCSE assessment based on prior topics covered this**

	• **Time Series** • **Calculating with roots & indices** • **Exact Calculations**	Students are taught how to plot data on a scatter graph and interpret this data where they can recognise the type and strength of correlation. They learn to draw and use the line of best fit and understand the limitations of using the line of best fit ; they appreciate the idea that interpolation is more reliable than extrapolation. They are expected to apply statistics to a described population. As well as this, they should be able interpret scatter graphs of bivariate data. **Prior Learning** Covered in KS3 but now greater emphasis on meaning of correlation and the suitability of a line of best fit and its use in potential situations. **Why Now?** <u>Time series</u> **Why taught?** Students should be able to interpret and construct tables,charts and diagrams, including frequency tables, bar charts, pie charts and pictograms for categorical data, vertical line charts for ungrouped discrete numerical data, tables and line graphs for time series data and know their appropriate use. Students are able to interpret information represented on a time series graph and describe the trends shown on this graph. **Prior Learning** Emphasis here on use of real-life situations plotting quarterly data and following trends both overall and seasonal. **Why now?** <u>Calculating with roots & indices</u> **Why taught?** Higher tier students are expected to be able to evaluate with fractional and negative indices - they should also be able to simplify these indices as well as represent square roots, cube roots and fractions using index notation. **Prior Learning** Students will have worked with higher roots. Now 3 laws of indices are developed, leading to understanding negative and fractional powers. **Why now?** <u>Exact calculations</u> **Why taught?** Students are taught this topic so that they are capable of calculating exactly with fractions, multiples of π, surds and rationalising the denominators. They are expected to simplify expressions written in terms of π and simplify surd	**half term** **Topic related & mixed written and online homeworks**

	• **Trigonometry 2** • **Pythagoras and Trigonometry Problems**	expressions by expanding brackets. Grade 8/9 work requires students to rationalise expressions with surd numerators and denominators. **Prior Learning** A development of previous work on surds and leaving answers in exact form, leading to simplifying expressions such as $2\sqrt{5} + 3 / \sqrt{5} - 2$ **Why now?** <u>Trigonometry 2</u> **Why taught?** For this topic, students need to know the formulae for: Pythagoras' theorem ($a^2 + b^2 = c^2$) and the trigonometric ratios, where they can apply them to find angles and lengths in right-angled triangles and, where possible, general triangles in 2D and 3D figures. Students are taught how to use the sine rule and the cosine rule to find missing lengths and angles in a triangle. They are also introduced to the formula to calculate the area of a triangle. **Prior Learning** Students will previously have covered trig/pythagoras in right-angled triangles. Now focus is on learning how to use the sine, cosine and area rule for all triangles. **Why now?** <u>Pythagoras and Trigonometry problems</u> **Why taught?** For this topic, students need to know the formulae for: Pythagoras' theorem ($a^2 + b^2 = c^2$) and the trigonometric ratios, where they can apply them to find angles and lengths in right-angled triangles and, where possible, general triangles in 2D and 3D figures. Students are able to solve problems in 3D using Pythagoras' and trigonometric ratios in right angled triangles. Also, they are able to calculate the values of sin x, cos x and tan x given any of the other ratios expressed as a fraction. **Prior Learning** A chance to practice using all trig/pythagoras learnt to date and apply to 3D shapes. **Why now?**	
Term 3:2	• **Cubic and reciprocal Functions**	<u>Cubic and reciprocal functions</u> **Why taught?** **Prior Learning** Recap of previously section on graphs now emphasis on recognising a graph from a sketch and matching problems. **Why Now?**	**GCSE assessment based on prior topics covered this term** **Topic related &**

	• **Sets + Probability**	<u>Sets</u> **Why taught?** Applying the property that the probabilities of an exhaustive set of outcomes sum to one is a key skill for students to have, as well as applying the property that the probabilities of an exhaustive set of mutually exclusive events sum to one. Students should be able to calculate the probability of independent and dependent combined events, including using tree diagrams and other representations, and know the underlying assumptions. **Prior Learning** Students will have met Venn diagrams in KS3 along with basic probability. Now, focus on using Venn diagrams to solving "wordy" problems , moving onto using Tree Diagrams to tackle combined probability questions.	**mixed written and online homeworks**

YEAR 11 F			
TERM	**Topic sequence** **(What are you teaching?)**	**Topic sequence rationale** **(Why are you teaching this? How does it link to prior learning? Any notable links to St Edmund's curriculum mission**	**Main method of assessment?**
Term 1:1	• **Loci, angles & bearing**	<u>Loci, angles & bearing</u> **Why taught?** Whilst students learn this topic, they become familiar with conventional terms and notations:points, lines, vertices, edges, planes, parallel lines, perpendicular lines, right angles, regular polygons and polygons with reflection and/or rotation symmetries. Students should be able to measure line segments and angles in geometric figures, including interpreting maps and scale drawings and use of bearings.	**GCSE assessment based on prior topics covered this half term** **Topic related & mixed written and online homeworks**

	• **Constructions** • **Trigonometry** • **Compound Unit, Recap metric conversions** • **Scatter graphs, correlation**	**Prior Learning** **Why taught?** <u>Constructions</u> **Why taught?** Students learn to accurately draw a triangle given two sides and an enclosed angle. Constructions in Year 11 involve being able to construct the perpendicular bisector of a line, an angle bisector and angles of 30, 45, 60 and 90 degrees. Students should be able to measure line segments and angles in geometric figures, including interpreting maps and scale drawings and use of bearings. **Prior Learning** **Why taught?** <u>Trigonometry</u> **Why taught?** Trigonometry is taught to help students compare lengths, areas and volumes using ratio notation; make links to similarity (including trigonometric ratios) and scale factors. Students should know the exact values of sin θ and cos θ for θ = 0°, 30°, 45° , 60° and 90° and know the exact value of tan θ for θ = 0°, 30°, 45° and 60°. This is taught so that students are able to use the trigonometric ratios to find missing sides in a right angled triangle as well as use trigonometry and pythagoras to solve problems involving right angled triangles/isosceles triangles. **Prior Learning** **Why now?** <u>Compound Unit, Recap metric conversions</u> **Why taught?** **Prior Learning** **Why now?** <u>Scatter graphs and correlation</u> **Why taught?** Students are taught how to plot data on a scatter graph and interpret this data where they can recognise the type and strength of correlation. They learn to draw and use the line of best fit and understand the limitations of using the line of best fit ; they appreciate the idea that interpolation is more reliable than extrapolation.	

	• **Direct proportion graphs**	**Prior Learning** **Why now?** <u>Direct proportion graphs</u> **Why taught?** This is taught so that students are able to understand and calculate where two amounts are directly proportional to each other. Students learn to express a multiplicative relationship between two quantities as a ratio or a fraction, understand and use proportion as equality of ratios and solve problems involving direct and inverse proportion, including graphical and algebraic representations. **Prior Learning** **Why now?**	
Term 1:2	• **Growth and Decay** • **Sequence rules** • **sequences, finding nth term, special sequences** • **Sets**	<u>Growth and Decay</u> **Why taught?** Students should be able to interpret the gradient of a straight line graph as a rate of change; recognise and interpret graphs that illustrate direct and inverse proportion. They should also be able to use decimal multipliers to find the results of consecutive or repeated percentage changes including compound interest. **Prior Learning** **Why now?** <u>Sequence rules</u> **Why taught?** **Prior Learning** **Why now?** <u>Sequences, finding nth term, special sequences</u> **Why taught?** This topic gives students the opportunity to recognise and use sequences of triangular, square and cube numbers, simple arithmetic progressions, Fibonacci type sequences, quadratic sequences, and simple geometric progressions. **Prior Learning** **Why now?** <u>Sets</u> **Why taught?** Here, students learn how to enumerate sets and combinations of sets systematically, using tables, grids, venn diagrams and tree diagrams. They	**GCSE assessment based on prior topics covered this term** **Topic related & mixed written and online homeworks**

	• **Quadratics**	also learn how to construct theoretical possibility spaces for single and combined experiments with equally likely outcomes and use these to calculate theoretical probabilities. **Prior Learning** **Why now?** <u>Quadratics</u> **Why taught?** It is important that students understand and use the concepts and vocabulary of expressions, equations, formulae, identities, inequalities, terms and factors. They need to be able to identify and interpret roots, intercepts and turning points of quadratic functions graphically; deduce roots algebraically. This topic shows how many different kinds of problems starting from completely different contexts can become quadratic equations.Students learn to translate simple situations or procedures into algebraic expressions or formulae; derive an equation, solve the equation and interpret the solution. Students are helped to solve quadratic equations, in the form $x^2 + bx + c = 0$, by factorisation. **Prior Learning** **Why now?**	
Term 2:1	• **Percentages** • **Pythagoras**	<u>Percentages</u> **Why taught?** Students are taught to define percentages as 'number of parts per hundred'; interpret percentages and percentage changes as a fraction or a decimal, and interpret these multiplicatively; express one quantity as a percentage of another; compare two quantities using percentages; work with percentages greater than 100%; solve problems involving percentage change, including percentage increase/decrease and original value problems, and simple interest including in financial mathematics. **Prior Learning** **Why now?** <u>Pythagoras</u> **Why taught?** Students should be able to apply angle facts, triangle congruence, similarity and properties of quadrilaterals to conjecture and derive results about angles and sides, including Pythagoras' Theorem and understand the fact that the base angles of an isosceles triangle are equal, and use known results to	**GCSE assessment based on prior topics covered this half term** **Topic related & mixed written and online homeworks**

		obtain simple proofs. For this topic, students need to know the formulae for: Pythagoras' theorem ($a^2 + b^2 = c^2$) and the trigonometric ratios, where they can apply them to find angles and lengths in right-angled triangles and, where possible, general triangles in 2D and 3D figures. They can then use the formula to find the length of diagonals in rectangles, rhombi and kites. **Prior Learning** **Why now?**	
	• **Vectors**	<u>Vectors</u> **Why taught?** Students are taught this topic so that they are able to use vector notation and column vectors as well as add, subtract and multiply vector expressions given as letter notation or as column vectors. They then progress onto learning how to use vector notations to describe journeys. **Prior Learning** **Why now?**	
	• **Circles, Sectors, arcs**	<u>Circles, Sectors, arcs</u> **Why taught?** At this stage, students are taught how to find arc lengths and the area of a sector in terms of π. They should know the formulae: circumference of a circle = $2\pi r = \pi d$, area of a circle = πr^2; calculate perimeters of 2D shapes, including circles; areas of circles and composite shapes. They learn how to calculate arc lengths, angles and areas of sectors of circles. **Prior Learning** **Why now?**	
	• **Volume/ SA/ Prisms**	<u>Volume/ SA/ Prisms</u> **Why taught?** Initially, students should be familiar with the standard mathematical formulae and are able to rearrange formulae to change the subject. They are expected to find the surface area of a cuboid and different prisms including triangular prisms, composite solids from cuboids and cylinders. They should be able to use the formula for density to find mass/density, having found the volume and being given the other value. **Prior Learning** **Why now?**	
	• **Surds/ Exact Values**	<u>Surds/ Exact values</u> **Why taught?**	

	• **Kinematics**	Students are expected to calculate exactly with fractions; calculate exactly with multiples of π, express surds as multiples of other surds and rationalising denominators as well as be able to recall exact trigonometric ratios. <u>Kinematics</u> **Why taught?** In this topic, students are taught how to plot and interpret graphs of non-standard functions in real contexts, to find approximate solutions to problems such as simple kinematic problems involving distance, speed and acceleration. **Prior Learning** **Why Now?**	
Term 2:2	• **Trigonometry again** • **Constructions recap** • **Loci/ Bearings recap**	<u>Trigonometry</u> Trigonometry is taught to help students compare lengths, areas and volumes using ratio notation; make links to similarity (including trigonometric ratios) and scale factors. Students should know the exact values of sin θ, cos θ and tan θ for θ = 0°, 30°, 45° , 60° and 90° (excluding tan 90). This is taught so that students are able to use the trigonometric ratios to find missing sides in a right angled triangle as well as use trigonometry and pythagoras to solve problems involving right angled triangles/isosceles triangles. <u>Constructions</u> Students learn to accurately draw a triangle given two sides and an enclosed angle. Constructions in Year 11 involve being able to construct the perpendicular bisector of a line, an angle bisector and angles of 30, 45, 60 and 90 degrees. Students should be able to measure line segments and angles in geometric figures, including interpreting maps and scale drawings and use of bearings. <u>Loci/ Bearings</u> Whilst students learn this topic, they become familiar with conventional terms and notations:points, lines, vertices, edges, planes, parallel lines, perpendicular lines, right angles, regular polygons and polygons with reflection and/or rotation symmetries. Students should be able to measure line segments and angles in geometric figures, including interpreting maps and scale drawings and use of bearings.	**GCSE assessment based on prior topics covered this term** **Topic related & mixed written and online homeworks**
Term 3:1	• **Tree Diagrams & probability recap**	<u>Tree diagrams & probability</u>	**External GCSE**

		Tree diagrams are taught so that students can use it to show the outcomes of two or more events, to calculate probabilities for both independent and dependent events.	**assessment**
Term 3:2			

YEAR 11 H			
TERM	**Topic sequence** **(What are you teaching?)**	**Topic sequence rationale** **(Why are you teaching this? How does it link to prior learning? Any notable links to St Edmund's curriculum mission**	**Main method of assessment?**
Term 1:1	• **Possibility spaces**	Possibility spaces **Why taught?** Students should be able to apply systematic listing strategies including use of the product rule for counting. They should be able to enumerate sets and combinations of sets systematically, using tables,grids, Venn diagrams and tree diagrams. In addition, they should also be able to use the language and	**GCSE assessment based on prior topics covered this half term** **Topic related &**

	• **Tree Diagrams** • **Functions** • **Exponentials, Trigonometry, Quadratic**	symbols for sets and Venn diagrams such as intersection, union and complement. In this topic, students are taught how to construct theoretical possibility spaces for single and combined experiments with equally likely outcomes and use these to calculate theoretical probabilities. **Prior Learning** All above met in year 10. Emphasis here on more "worded" questions until Venn Diagrams. **Why Now?** <u>Tree Diagrams</u> **Why taught?** Students should be able to show a set of all possible outcomes in a possibility space and use a possibility space to find probabilities of combined outcomes. They should have the ability to apply the property that the probabilities of an exhaustive set of outcomes sum to one and apply the property that the probabilities of an exhaustive set of mutually exclusive events sum to one. **Prior Learning** Repeat previous work on sample spaces in KS3 and lead onto use of tree diagrams, including problems involving conditional probabilities. **Why Now?** <u>Functions</u> **Why taught?** For higher tier students, they should be able to use the function notation f(x), g(x) and h(x) to describe mappings, find the inverse of a function and use the notation $f^{-1}(x)$ and Given functions such as $f(x) = 2x + 1$ and $g(x) = x^2$ find composite functions such as ff(x), fg(x), gfg(x) and $f^{-1}g(x)$. Students should be able to recognise and use relationships between operations, including inverse operations; use conventional notation for priority of operations, including brackets, powers, roots and reciprocals. **Prior Learning** New topic, so introduce basic notation first before moving onto finding composite and inverse functions. **Why now?** <u>Exponentials, Trigonometry, quadratics</u> **Why taught?** For this topic, students are expected to recognise,sketch and interpret graphs of linear functions and quadratic functions, simple cubic functions and the reciprocal function $y = 1/x$, exponential functions of $y=k^x$ for positive values of k, and the trigonometric functions y=sin x, y=cos x and y= tan x for	**mixed written and online homeworks**

	• **Real Life graphs / Kinematics** • **Gradients & Areas under graphs**	angles of any size. They should also be able to sketch graphs such as y= cos (x+30) and y=sin x + 1 by translating the graphs of y= cos x and y= sin x. **Prior Learning** Cubic and reciprocal graphs covered previously so here emphasis is on sketching trig and exponential graphs using basic transformations. **Why now?** <u>Real life graphs/ Kinematics</u> **Why taught?** For this topic, students need to be able to model situations using real life graphs, interpret information represented as a graph and use gradients to find rates of change. A key skill that students develop during this topic is plotting and interpreting graphs in real contexts as well as interpreting graphs of non-standard functions in real contexts, to find approximate solutions for simple kinematic problems involving distance, speed and acceleration. **Prior Learning** A revisit of work covered in year 10. Focus on finding distance and acceleration from a speed-time graph. **Why now?** <u>Gradients & Area under graph</u> **Why taught?** This is taught so that students can calculate or estimate gradients of graphs , areas under graphs and interpret results in cases such as distance-time graphs, velocity-time graphs and graphs in financial contexts. Higher level problems involve estimating the area under a curve by using trapeziums, interpreting the gradient and area under a curve in the context of the given graph. **Prior Learning** Previously used area and gradient in kinematics, Now focus is on how to deal with curved graphs using trapezia and tangents. **Why now?**	
Term 1:2	• **Equation of a circle, parallel & perpendicular lines**	<u>Equation of a circle, parallel & perpendicular lines</u> **Why taught?** Students should recognise and use the equation of a circle with centre at the origin and be able to find the equation of a tangent to a circle at a given point. They should use the equation $x^2 + y^2 = r^2$ to describe graphs with centre (0,0), be able to find the coordinates of points where a line intersects a circle, find points which lie on circle (given its equation) and find the equation of a tangent to a circle at a given point. **Prior learning**	**GCSE assessment based on prior topics covered this term** **Topic related & mixed written and online homeworks**

		Finding straight lines given parallel and perpendicular gradients done in year 10. Here, students need to recognise circle equations, and use the circle properties to find tangent equations at a point. **Why now?**	
	• **Loci and constructions**	<u>Constructions & Loci</u> **Why taught?** Students learn to accurately draw a triangle given two sides and an enclosed angle. Constructions in Year 11 involve being able to construct the perpendicular bisector of a line, an angle bisector and angles of 30, 45, 60 and 90 degrees. Students should be able to measure line segments and angles in geometric figures, including interpreting maps and scale drawings and use of bearings. For this topic, students become familiar with conventional terms and notations:points, lines, vertices, edges, planes, parallel lines, perpendicular lines, right angles, regular polygons and polygons with reflection and/or rotation symmetries. Students should be able to measure line segments and angles in geometric figures, including interpreting maps and scale drawings and use of bearings. **Prior Learning** Angle and perpendicular bisectors met in year 10, now add constructions for special angles and apply to loci problems involving maps and scales. **Why now?**	
	• **Quadratics & Special Sequences**	<u>Quadratics & Special Sequences</u> **Why taught?** Students should be able to generate a quadratic sequence given a term-to-term or position-to-term rule, continue a quadratic sequence by considering differences, generate a quadratic sequence given an expression for its nth term and find the nth term of a quadratic sequence by considering 2nd differences. Learning special sequences involves being able to understand the features of arithmetic, geometric, Fibonacci-type and quadratic sequences. **Prior Learning** Linear nth term covered in KS3. Now emphasis on finding quadratic nth term both by using 2nd difference method and $an^2 + bn + c$ approach. **Why Now?**	
	• **Compound units and converting between units**	<u>Compound units and converting between units</u> **Why taught?** Compound units allow students to change freely between related standard	

	• **Vectors**	units and compound units in numerical and algebraic contexts. Students should be able to use the formulae for the compound measures : speed, density and pressure. They should be able to use and apply other compound measures such as rate of flow or rate of pay. For converting between units, students need to be able to compare lengths, areas and volumes using ratio notation; make links to similarity and scale factors. **Prior learning** Students have previously converted units so emphasis on converting compound measures and with areas and volumes. **Why now?** <u>Vectors</u> **Why taught?** Students need to be able to use vectors to recognise parallel lines and in geometric proofs. Students should be able to apply addition and subtraction of vectors, multiplication of vectors by a scalar, and diagrammatic and column representations of vectors. **Prior Learning** New topic (only previously used vectors to describe translations). Notation needs to be carefully introduced and use of algebra using tree vectors will be tested. **Why now?**	
Term 2:1	• **Quadratics & Inequalities inc. Simultaneous**	<u>Quadratics & Inequalities inc. simultaneous</u> **Why taught?** For quadratics, students learn to translate simple situations or procedures into algebraic expressions or formulae; derive an equation, solve the equation and interpret the solution. Students are helped to solve quadratic equations, in the form $x^2 + bx + c = 0$, by factorisation.For inequalities, students need to be able to represent inequalities on a coordinate grid, including from written information. Students are taught how to solve two simultaneous equations in two variables algebraically; find approximate solutions using a graph. Students learn to translate simple situations or procedures into algebraic expressions or formulae; derive an equation, solve the equation and interpret the solution. They are expected to solve a simultaneous equation by elimination, substitution and graphically. **Prior Learning** Students will previously plot quadratics so need to cover sketching from factorised form and completing the square form. **Why Now?**	**GCSE assessment based on prior topics covered this half term** **Topic related & mixed written and online homeworks**

	• **Circles, sectors, arcs, circle theorems** • **Conditional probability** • **Direct & Inverse proportion** • **Bounds & Iteration**	<u>Circles, sectors, arcs, circle theorems</u> **Why taught?** At this stage, students are taught how to find arc lengths and the area of a sector in terms of π. They should know the formulae: circumference of a circle = $2\pi r = \pi d$, area of a circle = πr^2; calculate perimeters of 2D shapes, including circles; areas of circles and composite shapes. They learn how to calculate arc lengths, angles and areas of sectors of circles. **Prior Learning** Basic circle rules done previously. Here emphasis is on using formulae to find arc lengths and sector areas. **Why now?** <u>Conditional probability</u> **Why taught?** Tree diagrams are taught so that students can use it to show the outcomes of two or more events, to calculate probabilities for both independent and dependent events. **Prior Learning** Previously taught tree diagrams at the start of year 11. Here emphasis on conditional problems and those involving the use of ratio and algebra as well. **Why now?** <u>Direct & Inverse proportion</u> **Why taught?** Higher tier students should be able to solve problems involving direct and indirect proportion by forming an equation using the constant of proportionality. They should have a clear understanding that X is inversely proportional to Y is equivalent to X is proportional to 1/Y; construct and interpret equations that describe direct and indirect proportion. **Prior Learning** Revisiting the topic covered in year 10. Now the emphasis is on m0re complex “wordy” questions relating to real-life problems (use of inverse square law) **Why now?** <u>Bounds & Iteration</u> **Why taught?** **Prior Learning** Bounds covered in Year 10. Here emphasis is on using iterative methods to solve equations, making use of the ANS key to write the equation and exploring the convergence or otherwise of results.	

	• **Rates of change, growth & decay** • **Relative Frequency & Histograms**	**Why now?** <u>Rates of change, growth & decay</u> **Why taught?** Students interpret the gradient as a point on a curve as the instantaneous rate of change; apply the concepts of average and instantaneous rate of change. For the topic of growth and decay, students should be able to interpret the gradient of a straight line graph as a rate of change; recognise and interpret graphs that illustrate direct and inverse proportion. Students should have the ability to set up, solve and interpret the answers in growth and decay problems, including compound interest and work with general iterative processes. **Prior Learning** A chance to repeat some of previous kinematics with but here emphasis on exponential growth and decay problems both graphical and algebraic. **Why now?** <u>Cumulative frequency, box plots and histograms</u> **Why taught?** Students are expected to construct and interpret diagrams for grouped discrete data and continuous data, i.e. histograms with equal and unequal class intervals and cumulative frequency graphs, and know their appropriate use. Students are taught how to interpret, analyse and compare the distributions of data sets from univariate empirical distributions through: - appropriate graphical representation involving discrete, continuous and grouped data - appropriate measures of central tendency and spread **Prior Learning** Previously covered in year 10. Now emphasis on predicting theoretical probability from exponential results. For histogram emphasis on interpreting and comparing. **Why Now?**	
Term 2:2	• **Surds, fractional powers, recurring decimals**	<u>Surds, fractional powers, recurring decimals</u> **Why taught?** Students use surds to calculate answers in their exact form; they learn to simplify surd expressions involving squares and rationalise denominators. **Prior Learning** All covered previously, focus here on more complicated rationalising the denominator and finding exact fractions for recurring decimals.	**GCSE assessment based on prior topics covered this term** **Topic related & mixed written and**

	• **Bearings, sine, cosine, 3D trigonometry, pythagoras**	**Why now?** <u>Bearings, sine, cosine, 3D trigonometry, pythagoras</u> **Why now?** Students should be able to measure line segments and angles in geometric figures, including interpreting maps and scale drawings and use of bearings. For the trigonometry part of this topic, students need to know the formulae for: Pythagoras' theorem ($a^2 + b^2 = c^2$) and the trigonometric ratios, where they can apply them to find angles and lengths in right-angled triangles and, where possible, general triangles in 2D and 3D figures. Students are taught how to use the sine rule and the cosine rule to find missing lengths and angles in a triangle. They are also introduced to the formula to calculate the area of a triangle. **Prior Learning** All areas previously taught. Now emphasis on more extended, multi-stage problems along with applications to include maps and bearings. **Why Now?**	**online homeworks**
Term 3:1			**External GCSE assessment**
Term 3:2			