Curriculum Overview	**Subject: Mathematics** **Year Group: 9**				**Examination Board - Edexcel**
When?	**What?**	**Why?**	**How?**	**Assessment?**	**Support?**
Autumn Term	• Calculations, checking & rounding • Indices, roots and hierarchy of operations • Algebra: the basics • Averages and range • Polygons, angles & parallel lines	Students should build on learning from Years 7 & 8 further developing fluency, mathematical reasoning and competence in solving increasingly sophisticated problems across the National Curriculum areas of number, algebra, ratio and proportion, probability, geometry and statistics. The curriculum will continue to enable students to make links between topics and concepts whilst encouraging students to visualise and recognise patterns. During the Spring Term, students will begin to focus on topics determined by their tier of entry, with sets 1-3 following the Higher tier and sets 4-6 following the Foundation tier. The amount of time dedicated to studying each area reflects the weightings on the tier of entry.	Students will learn through a range of techniques. A significant proportion of each lesson will focus on building on prior knowledge, with new concepts presented in small steps and scaffolded as required. Teachers will use skilful questioning techniques to assess understanding throughout the lesson, identifying any misconceptions and ensuring that any required prior knowledge is secure before moving on. Students will then get time to practise these new ideas independently. The regular use of retrieval practice will also help inform teaching.	<u>Formative assessment</u> techniques, such as quizzing and cold-calling questioning, are used to assess the students prior knowledge and misconceptions. <u>Summative assessments</u> are completed termly with the focus in each term being to review student understanding of topics taught in the current and previous terms. This could include topics taught in previous years.	<u>e-PLC</u> This can be found in the respective google classroom. This has a, by topic, list of every learning outcome that the student will cover. With each objective there is a: • Video tutorial • My Maths task • Exam questions & answers <u>My Maths</u> <u>www.mymaths.co.uk</u> Here students will find step-by-step lessons and consolidation tasks. Students will have been given their login details in class. <u>Method Maths</u> <u>www.methodmaths.com</u> Students have access to a repository of past papers, which self-marks and provides question support.
Spring Term	Sets 1-3 • Factors, Multiples & primes • Standard form • Surds • Setting up, rearranging and solving equations • Representing & interpreting data • Perimeter, Area & Circles Sets 4-6 • Decimals • Expanding & Factorising Single brackets • Charts & Graphs • Interior & Exterior angles				
Summer Term	Sets 1-3 • Fractions • Percentages • Sequences • Scatter Graphs • Pythagoras' Theorem • 3D Forms & Volume Sets 4-6 • Fractions, Decimals & Percentages • Expressions & Substitution • Pie Charts / Scatter Graphs • Probability • Perimeter & Area • 3D forms & Volume				

Curriculum Overview	**Subject: Mathematics - Foundation** **Year Group: 10**				**Examination Board - Edexcel**
When?	**What?**	**Why?**	**How?**	**Assessment?**	**Support?**
Autumn Term	• Percentages • Solving equations • Inequalities • Sequences • Statistics & Sampling • Constructions, Loci & Bearings	Students should build on learning from Key Stage 3 further developing fluency, mathematical reasoning and competence in solving increasingly sophisticated problems across the National Curriculum areas of number, algebra, ratio and proportion, probability, geometry and statistics. The amount of time dedicated to studying each area reflects the weightings on the tier of entry. Across both tiers, there will be significantly greater emphasis on exam questions and on developing exam technique in Year 10. For example, how to break larger mark questions down into manageable parts, learning how long to spend on questions and how to maximise their marks.	Students will learn through a range of techniques. A significant proportion of each lesson will focus on building on prior knowledge, with new concepts presented in small steps and scaffolded as required. Teachers will use skilful questioning techniques to assess understanding throughout the lesson, identifying any misconceptions and ensuring that any required prior knowledge is secure before moving on. Students will then get time to practise these new ideas independently. The regular use of retrieval practice will also help inform teaching.	<u>Formative assessment</u> techniques, such as quizzing and cold-calling questioning, are used to assess the students prior knowledge and misconceptions. <u>Summative assessments</u> are completed termly with the focus in the Autumn and Spring terms reviewing student understanding of topics taught in the current and previous terms, whilst the Summer term assessment is two full past papers.	<u>e-PLC</u> This can be found in the respective google classroom. This has a, by topic, list of every learning outcome that the student will cover. With each objective there is a: • Video tutorial • My Maths task • Exam questions & answers <u>My Maths</u> www.mymaths.co.uk Here students will find step-by-step lessons and consolidation tasks. Students will have been given their login details in class. <u>Method Maths</u> www.methodmaths.com Students have access to a repository of past papers, which self-marks and provides question support.
Spring Term	• Ratio & Proportion • Real-life Graphs • Transformations I - Rotations & Translations • Transformations II - Reflections & Enlargements				
Summer Term	• Multiplicative Reasoning • Straight-Line Graphs • The Averages • Pythagoras & Trigonometry				

Curriculum Overview	**Subject: Mathematics - Higher** **Year Group: 10**				**Examination Board - Edexcel**
When?	**What?**	**Why?**	**How?**	**Assessment?**	**Support?**
Autumn Term	• Ratio & Proportion • Real Life graphs • Linear Graphs and coordinate geometry • Collecting data • Trigonometry and further Pythagoras	Students should build on learning from Key Stage 3 further developing fluency, mathematical reasoning and competence in solving increasingly sophisticated problems across the National Curriculum areas of number, algebra, ratio and proportion, probability, geometry and statistics. The amount of time dedicated to studying each area reflects the weightings on the tier of entry. Across both tiers, there will be significantly greater emphasis on exam questions and on developing exam technique in Year 10. For example, how to break larger mark questions down into manageable parts, learning how long to spend on questions and how to maximise their marks.	Students will learn through a range of techniques. A significant proportion of each lesson will focus on building on prior knowledge, with new concepts presented in small steps and scaffolded as required. Teachers will use skilful questioning techniques to assess understanding throughout the lesson, identifying any misconceptions and ensuring that any required prior knowledge is secure before moving on. Students will then get time to practise these new ideas independently. The regular use of retrieval practice will also help inform teaching.	<u>Formative assessment</u> techniques, such as quizzing and cold-calling questioning, are used to assess the students prior knowledge and misconceptions. <u>Summative assessments</u> are completed termly with the focus in the Autumn and Spring terms reviewing student understanding of topics taught in the current and previous terms, whilst the Summer term assessment is two full past papers.	<u>e-PLC</u> This can be found in the respective google classroom. This has a, by topic, list of every learning outcome that the student will cover. With each objective there is a: • Video tutorial • My Maths task • Exam questions & answers <u>My Maths www.mymaths.co.uk</u> Here students will find step-by-step lessons and consolidation tasks. Students will have been given their login details in class. <u>Method Maths</u> <u>www.methodmaths.com</u> Students have access to a repository of past papers, which self-marks and provides question support.
Spring Term	• Multiplicative Reasoning • Solving quadratic and simultaneous equations • Probability • Accuracy and bounds • Complex 3D forms and volume				
Summer Term	• Quadratic, cubic and other graphs • Inequalities • Cumulative frequency diagrams, Box plots and Histograms • Transformations				

<table>
<tr><td>Curriculum Overview</td><td colspan="4">Subject: Mathematics - Foundation
Year Group: 11</td><td>Examination Board - Edexcel
Revision Guide</td></tr>
<tr><td>When?</td><td>What?</td><td>Why?</td><td>How?</td><td>Assessment?</td><td>Support?</td></tr>
<tr><td>Autumn Term</td><td>• Probability
• Quadratic equations - expanding & factorising
• Plans & Elevations
• Circles, cylinders, cones and spheres</td><td rowspan="3">Students should build on learning from Year 10 further developing fluency, mathematical reasoning and competence in solving increasingly sophisticated problems across the National Curriculum areas of number, algebra, ratio and proportion, probability, geometry and statistics.

The amount of time dedicated to studying each area reflects the weightings on the tier of entry. Across both tiers, there will continue to be an emphasis on exam questions and on developing exam technique in Year 11. For example, how to break larger mark questions down into manageable parts, learning how long to spend on questions
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Summative assessments are completed termly with students taking PPEs (mock exams) in the Autumn and Spring term. This approach helps to develop the resilience and perseverance needed to be successful whilst also providing question level analysis of the students strengths and areas for improvement.</td><td rowspan="3">e-PLC
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<tr><td>Spring Term</td><td>• Fractions & reciprocals
• Indices and standard form
• Rearranging equations
• Cubic and reciprocal graphs
• Simultaneous Equations
• Similarity & congruence
• Vectors</td></tr>
<tr><td>Summer Term</td><td>• Revision and preparation for formal external examinations.</td></tr>
</table>

Curriculum Overview	**Subject: Mathematics - Higher** **Year Group: 11**				**Examination Board - Edexcel** **Revision Guide**
When?	**What?**	**Why?**	**How?**	**Assessment?**	**Support?**
Autumn Term	• Expanding more than 2 brackets • Solving simultaneous equations graphically • Changing the subject • Iteration • Geometric sequences • Functions • Similarity & congruence • Circle Theorems • Further Surds	Students should build on learning from Year 10 further developing fluency, mathematical reasoning and competence in solving increasingly sophisticated problems across the National Curriculum areas of number, algebra, ratio and proportion, probability, geometry and statistics. The amount of time dedicated to studying each area reflects the weightings on the tier of entry. Across both tiers, there will continue to be an emphasis on exam questions and on developing exam technique in Year 11. For example, how to break larger mark questions down into manageable parts, learning how long to spend on questions and how to maximise their marks.	Students will learn through a range of techniques. A significant proportion of each lesson will focus on building on prior knowledge, with new concepts presented in small steps and scaffolded as required. Teachers will use skilful questioning techniques to assess understanding throughout the lesson, identifying any misconceptions and ensuring that any required prior knowledge is secure before moving on. Students will then get time to practise these new ideas independently. The regular use of retrieval practice will also help inform teaching.	<u>Formative assessment</u> techniques, such as quizzing and cold-calling questioning, are used to assess the students prior knowledge and misconceptions. <u>Summative assessments</u> are completed termly with students taking PPEs (mock exams) in the Autumn and Spring term. This approach helps to develop the resilience and perseverance needed to be successful whilst also providing question level analysis of the students strengths and areas for improvement.	<u>e-PLC</u> This can be found in the respective google classroom. This has a, by topic, list of every learning outcome that the student will cover. With each objective there is a: • Video tutorial • My Maths task • Exam questions & answers <u>My Maths</u> www.mymaths.co.uk Here students will find step-by-step lessons and consolidation tasks. Students will have been given their login details in class. <u>Method Maths</u> www.methodmaths.com Students have access to a repository of past papers, which self-marks and provides question support.
Spring Term	• Direct and inverse Proportion • Algebraic fractions, solving and proof • Trigonometric graphs • Further trigonometry • Vectors and geometric proof				
Summer Term	• Revision and preparation for formal external examinations.				