

Overview of Year Group Curriculum Information  
for JFS Website 2016-17

**Subject:**

Mathematics

**Key Stage 3**

<b>YG</b>	<b>Autumn Term</b>	<b>Spring Term</b>	<b>Summer Term</b>
<b>Year 7</b>	<ul style="list-style-type: none"> <li>• Statistics</li> <li>• Interpreting Data</li> <li>• Using Numbers</li> <li>• Working with Numbers</li> <li>• Decimal Numbers</li> <li>• Fractions</li> <li>• Percentages</li> </ul>	<ul style="list-style-type: none"> <li>• Perimeter, Area and Volume</li> <li>• Angles and Angle Facts</li> <li>• Symmetry</li> <li>• 3D Shapes</li> <li>• Sequences</li> <li>• Basic Algebra Manipulation</li> </ul>	<ul style="list-style-type: none"> <li>• Equations</li> <li>• Coordinate and Graphs</li> <li>• Ratio</li> <li>• Probability</li> </ul>
<b>Year 8</b>	<ul style="list-style-type: none"> <li>• Working with Numbers</li> <li>• Enlargements and Translations</li> <li>• Percentages</li> <li>• Congruence</li> <li>• Surface Area and Volume of 3D shapes</li> </ul>	<ul style="list-style-type: none"> <li>• Straight Line Graphs</li> <li>• Powers of 10 and Standard Form</li> <li>• Interpreting Data</li> <li>• Algebraic Manipulation</li> <li>• Shape and Ratio</li> <li>• Fractions and Decimals</li> </ul>	<ul style="list-style-type: none"> <li>• Proportion and Graphs</li> <li>• Circumference and Area of a circle</li> <li>• Equations and Formulae</li> <li>• Comparing Data</li> </ul>
<b>Year 9</b>	<p>The students in Year 9 will be starting the GCSE syllabus, with Higher students covering topics on:</p> <ul style="list-style-type: none"> <li>• Basic Number</li> <li>• Fractions, ratio &amp; proportion</li> <li>• Statistical diagrams and averages</li> </ul> <p>Foundation classes:</p> <ul style="list-style-type: none"> <li>• Basic Number</li> <li>• Measures &amp; scale drawings</li> <li>• Statistics</li> <li>• Angles</li> <li>• Number properties</li> </ul>	<p>Higher classes:</p> <ul style="list-style-type: none"> <li>• Angles</li> <li>• Transformations, constructions &amp; loci.</li> <li>• Algebraic manipulation</li> <li>• Length, area and volume.</li> </ul> <p>Foundation classes:</p> <ul style="list-style-type: none"> <li>• Number properties</li> <li>• Approximations</li> <li>• Decimals and Fractions</li> <li>• Expressions &amp; formulae</li> <li>• Linear graphs</li> </ul>	<p>Higher classes:</p> <ul style="list-style-type: none"> <li>• Linear graphs</li> <li>• Right-angled triangles</li> <li>• Similarity</li> <li>• Probability</li> </ul> <p>Foundation classes:</p> <ul style="list-style-type: none"> <li>• Ratio, speed &amp; proportion</li> <li>• Perimeter &amp; area</li> <li>• Transformations</li> <li>• Probability</li> <li>• Volumes and surface area of prisms</li> </ul>

## Key Stage 4

YG	Autumn Term	Spring Term	Summer Term
<b>Year 10</b>	<p>The students in Year 10 will be starting the GCSE syllabus, with Higher students covering topics on:</p> <ul style="list-style-type: none"> <li>• Basic Number</li> <li>• Fractions, ratio &amp; proportion</li> <li>• Statistical diagrams and averages</li> <li>• Number &amp; sequences</li> <li>• Ratio &amp; proportion</li> <li>• Angles</li> <li>• Transformations, constructions &amp; loci.</li> </ul> <p>Foundation classes:</p> <ul style="list-style-type: none"> <li>• Basic Number</li> <li>• Measures &amp; scale drawings</li> <li>• Statistics</li> <li>• Angles</li> <li>• Number properties</li> <li>• Approximations</li> <li>• Decimals and Fractions</li> </ul>	<p>Higher classes:</p> <ul style="list-style-type: none"> <li>• Algebraic manipulation</li> <li>• Length, area and volume.</li> <li>• Linear graphs</li> <li>• Right-angled triangles</li> <li>• Similarity</li> <li>• Probability</li> </ul> <p>Foundation classes:</p> <ul style="list-style-type: none"> <li>• Expressions &amp; formulae</li> <li>• Linear graphs</li> <li>• Ratio, speed &amp; proportion</li> <li>• Perimeter &amp; area</li> <li>• Transformations</li> <li>• Probability</li> </ul>	<p>Higher classes:</p> <ul style="list-style-type: none"> <li>• Powers &amp; standard form</li> <li>• Equations &amp; inequalities</li> <li>• Accuracy, powers &amp; surds</li> <li>• Quadratic equations</li> </ul> <p>Foundation classes:</p> <ul style="list-style-type: none"> <li>• Volumes and surface area of prisms</li> <li>• Linear equations</li> <li>• Percentages &amp; compound measures</li> <li>• Percentage &amp; variations</li> <li>• Statistics</li> </ul>
<b>Year 11</b>	<p>Higher classes:</p> <ul style="list-style-type: none"> <li>• Linear equations</li> <li>• Inequalities &amp; formulae</li> <li>• Graphs &amp; equations</li> <li>• Quadratic &amp; simultaneous equations</li> <li>• Proportion</li> <li>• Transformations of functions</li> <li>• Area</li> </ul> <p>Foundation classes:</p> <ul style="list-style-type: none"> <li>• Averages and range</li> </ul>	<p>Higher classes:</p> <ul style="list-style-type: none"> <li>• Volume</li> <li>• Circle geometry</li> <li>• Constructions &amp; loci</li> <li>• Transformations</li> <li>• Pythagoras' theorem &amp; trigonometry</li> <li>• Vectors</li> </ul> <p>Foundation classes:</p> <ul style="list-style-type: none"> <li>• Formulae</li> <li>• Angles &amp; 2-D shapes</li> <li>• Circles</li> <li>• 3-D shapes</li> <li>• Construction &amp; loci</li> <li>• Transformations</li> <li>• Pythagoras' Theorem</li> </ul>	<p>Higher classes:</p> <ul style="list-style-type: none"> <li>• Revision &amp; exam preparation</li> </ul> <p>Foundation classes:</p> <ul style="list-style-type: none"> <li>• Revision &amp; exam preparation</li> </ul>

	<ul style="list-style-type: none"> <li>• Line Graphs &amp; scatter diagrams</li> <li>• Probability</li> <li>• Histograms &amp; tree diagrams (set 5 only)</li> <li>• Using a calculator</li> <li>• Percentages</li> <li>• Equations</li> <li>• Inequalities</li> <li>• Quadratic graphs</li> </ul>		
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## SIXTH FORM

YG	Autumn Term	Spring Term	Summer Term
<b>Year 12</b>	Pure: <ul style="list-style-type: none"> <li>• Algebra and functions;</li> <li>• Coordinate geometry in the <math>(x, y)</math> plane;</li> <li>• Sequences and series;</li> <li>• Differentiation;</li> <li>• Integration.</li> </ul> Statistics: <ul style="list-style-type: none"> <li>• Mathematical models in probability and statistics;</li> <li>• Representation and summary of data;</li> <li>• Probability;</li> </ul> Mechanics: <ul style="list-style-type: none"> <li>• Mathematical models in mechanics;</li> <li>• Vectors in mechanics;</li> <li>• Kinematics of a particle moving in a straight line;</li> <li>• Statics of a particle;</li> </ul>	Pure: <ul style="list-style-type: none"> <li>• Algebra and functions;</li> <li>• Coordinate geometry in the <math>(x, y)</math> plane;</li> <li>• Sequences and series;</li> <li>• Trigonometry;</li> <li>• Exponentials and logarithms;</li> <li>• Differentiation;</li> <li>• Integration.</li> </ul> Statistics: <ul style="list-style-type: none"> <li>• Correlation and regression;</li> <li>• Discrete random variables;</li> <li>• Discrete distributions;</li> <li>• The Normal distribution.</li> </ul> Mechanics: <ul style="list-style-type: none"> <li>• Dynamics of a particle moving in a straight line or plane;</li> <li>• Moments.</li> </ul>	Pure: <ul style="list-style-type: none"> <li>• Revision &amp; exam preparation</li> <li>• Algebra and functions;</li> </ul> Statistics: <ul style="list-style-type: none"> <li>• Revision &amp; exam preparation</li> </ul> Mechanics: <ul style="list-style-type: none"> <li>• Revision &amp; exam preparation</li> </ul>
<b>Year 13</b>	Pure: <ul style="list-style-type: none"> <li>• Trigonometry;</li> <li>• Exponentials and logarithms;</li> <li>• Differentiation;</li> <li>• Numerical methods.</li> </ul> Statistics: <ul style="list-style-type: none"> <li>• The Binomial and Poisson distributions;</li> </ul>	Pure: <ul style="list-style-type: none"> <li>• Algebra and functions;</li> <li>• Coordinate geometry in the <math>(x, y)</math> plane;</li> <li>• Sequences and series;</li> <li>• Differentiation;</li> <li>• Integration;</li> <li>• Vectors.</li> </ul> Statistics:	Pure: <ul style="list-style-type: none"> <li>• Revision &amp; exam preparation</li> </ul> Statistics: <ul style="list-style-type: none"> <li>• Revision &amp; exam preparation</li> </ul> Mechanics: <ul style="list-style-type: none"> <li>• Revision &amp; exam preparation</li> </ul>

	<ul style="list-style-type: none"> <li>• Continuous random variables;</li> <li>• Continuous distributions;</li> </ul> <p>Mechanics:</p> <ul style="list-style-type: none"> <li>• Kinematics of a particle moving in a straight line or plane;</li> <li>• Centres of mass;</li> </ul>	<ul style="list-style-type: none"> <li>• Samples;</li> <li>• Hypothesis tests.</li> </ul> <p>Mechanics:</p> <ul style="list-style-type: none"> <li>• Work and energy;</li> <li>• Collisions;</li> <li>• Statics of rigid bodies.</li> </ul>	
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**Current information for Year 12 and 13 teaching is based on the old specification. 'A'-Level Mathematics exam board content is hoping to achieve Ofqual accreditation by early 2017. The content that will be taught on a termly basis will be subject to change for this reason. Information will be updated at a later date.**