



*All of our courses at Key Stages 3, 4 & 5 benefit from lessons with direct links to MyMaths.co.uk giving pupils the opportunity to access resources in order to **Revise, Review & Recap** all work and content covered.*

For further information on each of the topics covered in all year groups, please click [here](#). This document outlines the objectives covered in each chapter, along with MyMaths codes to access resources and tasks on each lesson.

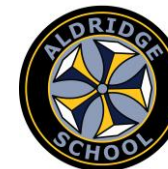
## Key Stage 3 – Mathematics

**Aim:** To provide students at KS3 a supportive, engaging and coherent start to their Secondary Mathematics studies. Our course is matched to the Key Stage 3 Programme of Study, meeting both the knowledge requirements (Number, Algebra, Ratio-proportion-&-rates-of-change, Geometry and Probability & Statistics), and the skills requirements (Develop fluency, Reason mathematically and Solve problems). A dedicated problem solving exercise in every lesson supports students in taking **responsibility** to apply their knowledge beyond the usual confines and contexts, promoting **resilience** alongside a **respect** for the subject. Student progression is supported by building confidence and developing skills with fluency practice questions before moving to problem solving practice. Pupils who grasp concepts rapidly are challenged through being offered rich and sophisticated problems before any acceleration through new content in preparation for key stage 4. We aim to help our students become independent, well-rounded learners who are always **ready to learn**.

**Sequencing:** The course at Key Stage 3 is sequenced in such a way as to allow our pupils to consolidate their numerical and mathematical capability from Key Stage 2; revisiting and building on their prior knowledge and developing new skills in the process. Topics are carefully sequenced to ensure that students acquire the relevant prior knowledge before embarking on a new concept; topics are then revisited frequently through the course to embed learning and ensure progress in careful increments. The spiralling nature of developing maths skills makes this an essential part of our curriculum.



	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Year 7	Statistics  Whole numbers & decimals  Measures, perimeter & area	Expressions & formulae  Fractions, decimals & percentages  Angles & 2D shapes	Graphs  Whole number calculations  Transformations & symmetry	Equations  Factors & multiples	Constructions & 3D shapes  Sequences  Decimal Calculations	Ratio & proportion  Probability
Year 8	Whole numbers & decimals  Measures, perimeter & area  Expressions & Formulae	Fractions, decimals & percentages  Angles & shapes  Mental Calculations	Graphs  Statistics/Collecting & representing data	Transformations  Equations  Written & calculator methods	Constructions  Sequences	3D shapes  Ratio & Proportion  Probability
Year 9	Whole numbers & decimals  Measures & area  Expressions & formulae  Fractions, decimals & percentages	Angles & 2D shapes  Graphs  Transformations & Symmetry	Statistics 1  Equations  Powers & Roots	Constructions  Sequences	3D Shapes  Ratio & Proportion  Probability	<b>Start of GCSE</b> Expressions  Calculations



Suggested Revision Website	Exam Board Link	Recommended Revision Guide
<a href="http://www.mymaths.co.uk">www.mymaths.co.uk</a> <a href="https://corbettmaths.com/5-a-day/">https://corbettmaths.com/5-a-day/</a> <a href="https://www.mathsgenie.co.uk/">https://www.mathsgenie.co.uk/</a> <a href="https://www.maths4everyone.com/">https://www.maths4everyone.com/</a> <a href="https://mathsbot.com/">https://mathsbot.com/</a>	<a href="https://global.oup.com/education/content/secondary/series/mymaths-ks3/?region=uk">https://global.oup.com/education/content/secondary/series/mymaths-ks3/?region=uk</a>	<p>Revise Key Stage 3 Mathematics Study Guide - <b><i>preparing for the GCSE Higher course</i></b></p> <p>ISBN: <b>9781292111537</b></p> <p><a href="https://www.pearsonschoolsandfecolleges.co.uk/secondary/Mathematics/11-16/KS3MathsProgress/ISBN/Revision/ReviseKeyStage3MathematicsHigherStudyGuide.aspx">https://www.pearsonschoolsandfecolleges.co.uk/secondary/Mathematics/11-16/KS3MathsProgress/ISBN/Revision/ReviseKeyStage3MathematicsHigherStudyGuide.aspx</a></p> <p>Revise Key Stage 3 Mathematics Study Guide - <b><i>Preparing for the GCSE Foundation course</i></b></p> <p>ISBN: <b>9781292111544</b></p> <p><a href="https://www.pearsonschoolsandfecolleges.co.uk/secondary/Mathematics/11-16/KS3MathsProgress/ISBN/Revision/ReviseKeyStage3MathematicsFoundationStudyGuide.aspx">https://www.pearsonschoolsandfecolleges.co.uk/secondary/Mathematics/11-16/KS3MathsProgress/ISBN/Revision/ReviseKeyStage3MathematicsFoundationStudyGuide.aspx</a></p>



## Key Stage 4 - Mathematics

**Aim:** Key Stage 4 mathematics aims to provide pupils with the next steps required to build on their prior learning at Key Stage 3 ensuring that their understanding is at a greater depth, and to build a platform to allow as many pupils as possible to move on to successfully study mathematics at Key Stage 5.

In a similar manner to the Key Stage 3 curriculum, a dedicated problem-solving element is given to pupils - this time in every other lesson - to provide an opportunity to apply their knowledge beyond the usual confines and contexts, promoting **resilience** alongside a **respect** for the subject. Having first been given the time to improve their fluency of using the new skills, pupils are given greater **responsibility** to look back over other prior learning opportunities to see how a variety of skills may need to be recalled in order to apply simultaneously alongside the new skills. All of this ensures that we continue to help our students become independent, well-rounded, learners who are always **ready to learn**.

**Sequencing:** Our topics are sequenced in such a way as to allow our pupils to build on their prior knowledge from KS3 and develop new skills in the process. It is in an order that we believe gives the best opportunities to our pupils, allowing any topic to be taught in the confidence that all of its pre-requisite skills having already been delivered in previous units of work. Our curriculum relies on revisiting topics and building on these at each opportunity as the challenge increases. The spiralling nature of developing maths skills makes this an essential part of our curriculum.

	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Year 10	Angles & Polygons  Handling Data  Formulae & Functions	Fractions, decimals and percentages (Foundation Tier only)	Working in 2D  Equations & Inequalities	Circles & constructions  Ratio & Proportion	Factors, powers & roots  Graphs	Grouped & bivariate data  Working in 3D



	(Foundation Tier only)  Fractions, decimals and percentages (Higher Tier only)	Formulae & Functions (Higher Tier only)  Probability Measures & Accuracy				
Year 11	Calculations 2  Graphs 2	Pythagoras & Trigonometry  Combined Events  Sequences	Units & proportionality	Revision	Revision	Revision

Suggested Revision Website	Exam Board Link	Recommended Revision Guide
Website links below:  <a href="https://www.mymaths.co.uk/">https://www.mymaths.co.uk/</a>  <a href="https://www.kerboodle.com/users/login?user_return_to=%2Fapp">https://www.kerboodle.com/users/login?user_return_to=%2Fapp</a>  <a href="https://corbettmaths.com">https://corbettmaths.com</a>  <a href="https://www.mathsgenie.co.uk/gcse.html">https://www.mathsgenie.co.uk/gcse.html</a>  <a href="https://www.bbc.co.uk/bitesize/examspecs/z9p3mnb">https://www.bbc.co.uk/bitesize/examspecs/z9p3mnb</a>	Website links below:  <a href="https://qualifications.pearson.com/en/qualifications/edexcel-gcses/mathematics-2015.html">https://qualifications.pearson.com/en/qualifications/edexcel-gcses/mathematics-2015.html</a>	REVISE EdExcel GCSE (9-1) Mathematics Foundation revision guide ISBN: <b>9781447988045</b>  REVISE EdExcel GCSE (9-1) Mathematics Foundation revision guide ISBN: <b>9781447988090</b>



<a href="https://www.mathedup.co.uk/gcse-maths-takeaway/">https://www.mathedup.co.uk/gcse-maths-takeaway/</a>		
<a href="https://www.maths4everyone.com/">https://www.maths4everyone.com/</a>		



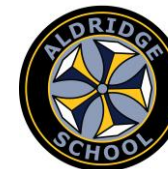
## Key Stage 5 – Mathematics

### A Level

**Aim:** To provide our most able students with the opportunity to continue the study of Mathematics beyond GCSE. We want our most able mathematicians to take **responsibility** to develop deep mathematical skills and the **resilience** to use these functionally in a real life context. We aim to create genuine real life skills alongside a **respect** for the subject, staff and peers. We aim to help our students become independent, well-rounded, learners who are always **ready to learn**. Student progression is supported by building confidence with fluency practice questions before moving to problem solving practice.

**Sequencing:** Topics at KS5 are sequenced across two teachers; teacher 1 covers Core content and teacher 2 the Applied. It is in an order that we believe gives the best opportunities to our pupils, allowing topics to be taught in the confidence that all of its pre-requisite skills having already been delivered in previous units of work. Statistics is taught first in year 12 as the prerequisite knowledge for the Mechanics element is larger, therefore needing more time to be covered by teacher 1 before pupils embark on this element. Bridging sections at the start of chapters offer students the chance to recap skills from GCSE and start to use the skills they need at A Level.

	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Year 12	Trigonometry  Algebra  Vectors  Data	Polynomials  Probability  Hypothesis testing	Differentiation  Integration  Kinematics  Forces and Newtons law	Exponentials and logs.  Forces and Newtons law cont.	Exponentials and Logs cont.  Mock revision	Algebra 2
Year 13	Trigonometric identities	Differentiation 2 cont.	Integration and differential equations	Numerical methods  Revision	Revision	



	Differentiation 2	Probability	Hypothesis testing			
	Motion in 2 dimensions					
	Forces 2.					

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Website links below: <a href="https://www.mymaths.co.uk/">https://www.mymaths.co.uk/</a> <a href="https://www.kerboodle.com/users/login">https://www.kerboodle.com/users/login</a> <a href="https://www.physicsandmathstutor.com/">https://www.physicsandmathstutor.com/</a> <a href="https://www.mathsgenie.co.uk/newalevel.html">https://www.mathsgenie.co.uk/newalevel.html</a> <a href="https://mathsmadeeasy.co.uk/">https://mathsmadeeasy.co.uk/</a> <a href="https://www.drfrostmaths.com/">https://www.drfrostmaths.com/</a>	Website links below: <a href="https://qualifications.pearson.com/en/qualifications/edexcel-a-levels/mathematics-2017.html">https://qualifications.pearson.com/en/qualifications/edexcel-a-levels/mathematics-2017.html</a>	Revise Edexcel A-Level Maths ISBN: <b>9781292190679</b>



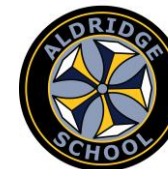
## Key Stage 5 – Mathematics

### Further Maths

**Aim:** To provide our most able students with the opportunity to continue the study of Mathematics beyond GCSE and A Level. We want our most able mathematicians to take **responsibility** to develop deep Mathematical skills and the **resilience** to use these functionally in a real life context. We aim to create genuine real life skills alongside a **respect** for the subject, staff and peers. We aim to help our students become independent, well-rounded, learners who are always **ready to learn**.

**Sequencing:** Two teachers on an equal split teach further Maths; one teaches the Core content and one the Applied. Topics that link most closely to the GCSE and the A-Level specification are taught first in order to build on prior knowledge. Our topics are sequenced in such a way as to allow our pupils to build on their prior knowledge from KS4 and A Level studies, developing new skills in the process. It is in an order that we believe gives the best opportunities to our pupils, allowing any topic to be taught in the confidence that all of its pre-requisite skills having already been delivered in previous units of work.

	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Year 12	Complex numbers 1  Algebra and series  Algorithms  Graphs and Networks	Algebra and series cont.  Graphs and networks cont.  Matrices	Matrices cont.  Vectors  Critical path analysis  Linear programming	Vectors cont.  Linear programming cont.	Integration  Complex numbers 2 Revision	Revision
Year 13	Series Integration and differentiation	Integration and differentiation cont.	Differential equations	Revision	Revision	



	Forces and energy	Momentum and collisions				
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Suggested Revision Website	Exam Board Link	Recommended Revision Guide
Website links below:  <a href="https://www.kerboodle.com/users/login">https://www.kerboodle.com/users/login</a>  <a href="https://www.physicsandmathstutor.com/">https://www.physicsandmathstutor.com/</a>	Website links below:  <a href="https://qualifications.pearson.com/en/qualifications/edexcel-a-levels/mathematics-2017.html">https://qualifications.pearson.com/en/qualifications/edexcel-a-levels/mathematics-2017.html</a>	Website links below:  <a href="https://www.cgpbooks.co.uk/secondary-books/as-and-a-level/maths/further-maths/mfer71-new-as-a-level-further-maths-for-edexcel">https://www.cgpbooks.co.uk/secondary-books/as-and-a-level/maths/further-maths/mfer71-new-as-a-level-further-maths-for-edexcel</a>



## Key Stage 5 – Mathematics

### Core Maths

**Aim:** To provide all students with the opportunity to continue the study of Mathematics beyond GCSE. Mathematics is for everyone. It is diverse, engaging and essential in equipping students with the right skills to reach their future destination, whatever that may be. We want all of our mathematicians to take **responsibility** to develop deeper Mathematical skills and the **resilience** to use these functionally in a real life context. We aim to create genuine real life skills alongside a **respect** for the subject, staff and peers. We aim to help our students become independent, well-rounded, learners who are always **ready to learn**.

**Sequencing:** Core Maths is sequenced to build on prior learning from the GCSE specification and then introduce the more functional, real life topics. Preliminary material is taught later as it is released. Our topics are sequenced in such a way as to allow our pupils to build on their prior knowledge from KS4 and develop new skills in the process. It is in an order that we believe gives the best opportunities to our pupils, allowing any topic to be taught in the confidence that all of its pre-requisite skills having already been delivered in previous units of work.

	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Year 12	Analysis of data	Personal finance	Personal finance cont.	Modelling and estimation	Analysis of preliminary material	Critical analysis
Year 13	Critical path analysis  Expectation	Cost benefit analysis	Preliminary material analysis and preparation	Preliminary material analysis and preparation  Revision	Revision	



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<p>Website link below: <a href="https://www.aqa.org.uk/subjects/mathematics/aqa-certificate/mathematical-studies-1350/assessment-resources">https://www.aqa.org.uk/subjects/mathematics/aqa-certificate/mathematical-studies-1350/assessment-resources</a>  <a href="http://www.cimt.org.uk/cmss/">http://www.cimt.org.uk/cmss/</a></p>	<p>Website link below: <a href="https://www.aqa.org.uk/subjects/mathematics/aqa-certificate/mathematical-studies-1350">https://www.aqa.org.uk/subjects/mathematics/aqa-certificate/mathematical-studies-1350</a></p>	<p>Website link below: <a href="https://www.amazon.co.uk/Letts-level-Revision-Success-Mathematical/dp/0008179727/ref=sr_1_2?dchild=1&amp;keywords=core+maths+revision&amp;qid=1584359925&amp;sr=8-2">https://www.amazon.co.uk/Letts-level-Revision-Success-Mathematical/dp/0008179727/ref=sr_1_2?dchild=1&amp;keywords=core+maths+revision&amp;qid=1584359925&amp;sr=8-2</a></p>