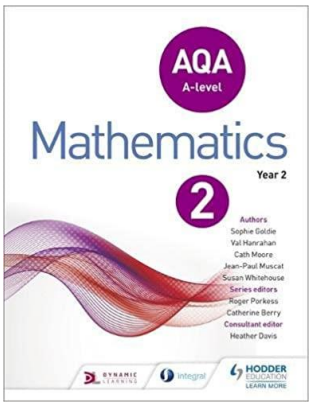
Belper School Maths on-line learning programme Year 13

A-level Mathematics

The Year 13 scheme of learning for Mathematics broadly follows the AQA textbook that you have been allocated by the department. As such, your first point of reference for each topic area will be the page numbers as indicated on the following pages in the programmes for each term. It is important that you read through the explanatory material and examples, making your own notes as you proceed through each section. It is also vital that your try questions from the exercises, checking your answers in the back of the book (focus on the green and yellow questions initially with the red ones being the most challenging!) In this book, there are also review chapters that look back on some of the work covered in Year 12 – you might find it useful to start here. At any stage, please do contact your teacher if you have any questions regarding the content or if you are struggling to access the work.



As well as the textbook, there are a number of other on-line resources that you could use and these are listed below. My advice would be to start with the textbook, follow it up with using the Mymaths website (when applicable) and then consolidate your learning by using the Integral website which will give you plenty of extra questions to work through! Your teacher is likely to contact you with advice about which resource might fit a particular topic best and/or provide you with additional material so please check your e-mails regularly!

MyMaths (www.mymaths.co.uk) login: belper and password: shape. Just remember to select 'A-level' in the drop down menu in the top left of the screen. MyMaths is particularly useful for further explanation of content. Just be careful though as the material is not broken down into AS and A-level so be sure that the content matches what is in your textbook. If unsure, please do contact your teacher.

Integral (https://integralmaths.org/). You have already been sent your login and password details but please contact your teacher if you problems logging in. This is a fantastic website with lots of high quality resources including videos, modelled solutions and many, many questions. It is broken down into AS and A-level content and optional links to the **resources section** are included below - please do use them!

Week Number	Year 13 Autumn Term MATHS Page References
1 2	**Binomial expansion: p151-p158** https://2017.integralmaths.org/course/view.php?id=36&sectionid=1152 **Simplifying algebraic expressions: p158-p163** https://2017.integralmaths.org/course/view.php?id=36&sectionid=1153 **Partial Fractions: p163-168** https://2017.integralmaths.org/course/view.php?id=36&sectionid=1154
3 4	**Trigonometric identities: p169-p183** https://2017.integralmaths.org/course/view.php?id=36&sectionid=1157 https://2017.integralmaths.org/course/view.php?id=36&sectionid=1158 **Differentiation: p97-p125** https://2017.integralmaths.org/course/view.php?id=36&sectionid=1144 https://2017.integralmaths.org/course/view.php?id=36&sectionid=1145 https://2017.integralmaths.org/course/view.php?id=36&sectionid=1146
5 6 7	**Further differentiation: p184-p193** https://2017.integralmaths.org/course/view.php?id=36&sectionid=1161 https://2017.integralmaths.org/course/view.php?id=36&sectionid=1162 **Graph transformations and functions: p64-p90** https://2017.integralmaths.org/course/view.php?id=36&sectionid=1139 https://2017.integralmaths.org/course/view.php?id=36&sectionid=1140 https://2017.integralmaths.org/course/view.php?id=36&sectionid=1141
8 9	**Implicit differentiation: p193-p197** https://2017.integralmaths.org/course/view.php?id=36&sectionid=1163 **Parametric equations and differentiation: p251-p265** https://2017.integralmaths.org/course/view.php?id=36&sectionid=1172 https://2017.integralmaths.org/course/view.php?id=36&sectionid=1173
10 11 12	**Integration: p198-p229** https://2017.integralmaths.org/course/view.php?id=36&sectionid=1166 https://2017.integralmaths.org/course/view.php?id=36&sectionid=1167 https://2017.integralmaths.org/course/view.php?id=36&sectionid=1168 **Numerical methods: p292-p307** https://2017.integralmaths.org/course/view.php?id=36&sectionid=1182
13 14	**Integration by parts: p229-p235** https://2017.integralmaths.org/course/view.php?id=36&sectionid=1169 **Numerical integration: p308-p315** https://2017.integralmaths.org/course/view.php?id=36&sectionid=1183

Week Number	Year 13 Spring Term MATHS Page References
15 16	**Proof: p2-p11** https://2017.integralmaths.org/course/view.php?id=36&sectionid=112 **Differential equations: p278-p289** https://2017.integralmaths.org/course/view.php?id=36&sectionid=1179
17 18 19	**Vectors: p266-p277** https://2017.integralmaths.org/course/view.php?id=36&sectionid=1176 **Kinematics: p415-p423** **Probability: p339-p352** https://2017.integralmaths.org/course/view.php?id=38&sectionid=2083
20 21 22	**Kinematics in vectors: p423-p436** https://2017.integralmaths.org/course/view.php?id=37&sectionid=1400 **Projectiles: p483-p502** https://2017.integralmaths.org/course/view.php?id=37&sectionid=1410 https://2017.integralmaths.org/course/view.php?id=37&sectionid=1411 **Normal distribution: p362-p377** https://2017.integralmaths.org/course/view.php?id=38&sectionid=2086
23 24 25	**Forces and Newton's laws: p446-p469** https://2017.integralmaths.org/course/view.php?id=37&sectionid=1403 https://2017.integralmaths.org/course/view.php?id=37&sectionid=1404 https://2017.integralmaths.org/course/view.php?id=37&sectionid=1414 **Hypothesis testing: p384-p406** https://2017.integralmaths.org/course/view.php?id=38&sectionid=2089 https://2017.integralmaths.org/course/view.php?id=38&sectionid=2090 **Statics and moments: p470-p481** https://2017.integralmaths.org/course/view.php?id=37&sectionid=1407

Week Number	Year 13 Summer Term MATHS Page References
26 27	This is time dedicated to completing any remaining content from the course or to begin your revision programme.
	At this stage, you should begin your A-level examination preparation. It may be that your teacher has already given you a series of examination papers to work through and I would advise you to work steadily through these. If you do not have these papers, please follow the links below as they will take you directly to WebLearn (Belper School VLE) where you can enter your usual login details and access past papers and mark schemes directly. **https://moodle.belperschool.co.uk/course/view.php?id=81**