

## MathsWatch

The Year 11 scheme of learning is broken down into units of work based on the AQA examination specification for Mathematics. On the following pages, term-by-term, you will see the general content of each unit together with some links to our MathsWatch subscription package. Each link will take you to the appropriate page on the MathsWatch website ([vle.mathswatch.co.uk](http://vle.mathswatch.co.uk)). To access the page you may need to enter your username (school login number followed by @belper such as 12345@belper) and your password is belper unless you have already changed it. You may also need to refresh the page. Please contact your Maths teacher directly if you have any problems accessing the website.

The week numbers are there as a guide to what you should be doing at that stage of the school year but do not feel that you have to stick precisely to these times. On each link, there is a video explaining the topic as well as interactive questions, which you can access by clicking on the tab at the top of the video screen. For some questions you will need to use interactive tools (protractor, ruler, etc) so be sure to use the 'extras' tab at the top of the page which links into tips and tutorials on how to use them effectively. Remember that your teachers are here to help so contact them if you need any help.

Each unit is divided into two sections. The top section has links to material that is included at both Foundation tier and Higher tier. **The bottom section is only for those students who are hoping to sit the final GCSE exam at Higher tier.** It is usual for some students to be unsure about which tier they will be doing so my advice for those students would be to start with the top section and if you are able to answer most of the questions confidently, then you should be looking at the bottom section too. If you are still unsure, please e-mail your teacher for further advice as they will know you best.

For each link be sure to watch the videos closely but do not worry if you cannot complete all of the interactive questions (make sure you look out for the green 'HINTS' option on some questions). Some tasks will be too easy; some may be too hard – just try your best.

## Other resources

Of course, MathsWatch is not the only resource out there to help you with your mathematics and you may have other resources (such as revision guides) that will help you to keep up to date with the scheme of learning. Some other noteworthy on-line resources include:



MyMaths ([www.mymaths.co.uk](http://www.mymaths.co.uk)) login: belper and password: shape



Hegarty Maths <http://mathswebsite.com>

You will need to register to login but it is FREE! Great videos explaining how to do every topic!



Corbett Maths <https://corbettmaths.com/>

As well as questions (with answers!) to try, this also has videos and revision cards.

Week Number	Unit of Work	Year 11 Autumn Term MathsWatch Resources
1 2 3	Ratio & Proportion	Introduction to ratio <a href="https://vle.mathswatch.co.uk/vle/browse/193">https://vle.mathswatch.co.uk/vle/browse/193</a> Using ratio <a href="https://vle.mathswatch.co.uk/vle/browse/194">https://vle.mathswatch.co.uk/vle/browse/194</a> Introduction to proportion <a href="https://vle.mathswatch.co.uk/vle/browse/197">https://vle.mathswatch.co.uk/vle/browse/197</a> Best buy questions <a href="https://vle.mathswatch.co.uk/vle/browse/196">https://vle.mathswatch.co.uk/vle/browse/196</a> Exchanging money <a href="https://vle.mathswatch.co.uk/vle/browse/263">https://vle.mathswatch.co.uk/vle/browse/263</a> Sharing using ratio <a href="https://vle.mathswatch.co.uk/vle/browse/264">https://vle.mathswatch.co.uk/vle/browse/264</a> Ratio, fractions & graphs <a href="https://vle.mathswatch.co.uk/vle/browse/265">https://vle.mathswatch.co.uk/vle/browse/265</a>
<b>HIGHER TIER MATERIAL ONLY</b>		
		Direct and inverse proportion <a href="https://vle.mathswatch.co.uk/vle/browse/369">https://vle.mathswatch.co.uk/vle/browse/369</a>
3 4 5 6	Pythagoras, Trigonometry & Compound units	Reading scales <a href="https://vle.mathswatch.co.uk/vle/browse/156">https://vle.mathswatch.co.uk/vle/browse/156</a> Real-life tables 1 <a href="https://vle.mathswatch.co.uk/vle/browse/158">https://vle.mathswatch.co.uk/vle/browse/158</a> Real-life tables 2 <a href="https://vle.mathswatch.co.uk/vle/browse/159">https://vle.mathswatch.co.uk/vle/browse/159</a> Metric conversions <a href="https://vle.mathswatch.co.uk/vle/browse/270">https://vle.mathswatch.co.uk/vle/browse/270</a> Bearings <a href="https://vle.mathswatch.co.uk/vle/browse/283">https://vle.mathswatch.co.uk/vle/browse/283</a> Compound units <a href="https://vle.mathswatch.co.uk/vle/browse/305">https://vle.mathswatch.co.uk/vle/browse/305</a> Pythagoras 1 <a href="https://vle.mathswatch.co.uk/vle/browse/314">https://vle.mathswatch.co.uk/vle/browse/314</a> Pythagoras 2 <a href="https://vle.mathswatch.co.uk/vle/browse/315">https://vle.mathswatch.co.uk/vle/browse/315</a> Trigonometry <a href="https://vle.mathswatch.co.uk/vle/browse/335">https://vle.mathswatch.co.uk/vle/browse/335</a> Exact trig values <a href="https://vle.mathswatch.co.uk/vle/browse/340">https://vle.mathswatch.co.uk/vle/browse/340</a>
<b>HIGHER TIER MATERIAL ONLY</b>		
		The sine rule <a href="https://vle.mathswatch.co.uk/vle/browse/371">https://vle.mathswatch.co.uk/vle/browse/371</a> The cosine rule <a href="https://vle.mathswatch.co.uk/vle/browse/372">https://vle.mathswatch.co.uk/vle/browse/372</a> Area of a triangle using sine <a href="https://vle.mathswatch.co.uk/vle/browse/373">https://vle.mathswatch.co.uk/vle/browse/373</a> 3D Pythagoras <a href="https://vle.mathswatch.co.uk/vle/browse/393">https://vle.mathswatch.co.uk/vle/browse/393</a> 3D trigonometry <a href="https://vle.mathswatch.co.uk/vle/browse/394">https://vle.mathswatch.co.uk/vle/browse/394</a>
7 8 9	Sequences	Term-to-term sequences <a href="https://vle.mathswatch.co.uk/vle/browse/192">https://vle.mathswatch.co.uk/vle/browse/192</a> Using nth term of a sequence <a href="https://vle.mathswatch.co.uk/vle/browse/260">https://vle.mathswatch.co.uk/vle/browse/260</a> Finding the nth term <a href="https://vle.mathswatch.co.uk/vle/browse/261">https://vle.mathswatch.co.uk/vle/browse/261</a> Special sequences <a href="https://vle.mathswatch.co.uk/vle/browse/262">https://vle.mathswatch.co.uk/vle/browse/262</a> Fibonacci <a href="https://vle.mathswatch.co.uk/vle/browse/304">https://vle.mathswatch.co.uk/vle/browse/304</a> Geometric sequences <a href="https://vle.mathswatch.co.uk/vle/browse/330">https://vle.mathswatch.co.uk/vle/browse/330</a>
<b>HIGHER TIER MATERIAL ONLY</b>		
		Iteration <a href="https://vle.mathswatch.co.uk/vle/browse/346">https://vle.mathswatch.co.uk/vle/browse/346</a> Iterative processes <a href="https://vle.mathswatch.co.uk/vle/browse/347">https://vle.mathswatch.co.uk/vle/browse/347</a> nth term of a quadratic seq. <a href="https://vle.mathswatch.co.uk/vle/browse/388">https://vle.mathswatch.co.uk/vle/browse/388</a>
10 11	Relative Frequency	Calculating probabilities <a href="https://vle.mathswatch.co.uk/vle/browse/215">https://vle.mathswatch.co.uk/vle/browse/215</a> Experimental probabilities <a href="https://vle.mathswatch.co.uk/vle/browse/284">https://vle.mathswatch.co.uk/vle/browse/284</a>
12 13 14	<b>MOCKS</b>	<b>The Year 11 Mock Exams will take place during this term</b>

Week Number	Unit of Work	Year 11 Spring Term MathsWatch Resources
15 16	Probability	The probability scale <a href="https://vle.mathswatch.co.uk/vle/browse/168">https://vle.mathswatch.co.uk/vle/browse/168</a> Frequency trees <a href="https://vle.mathswatch.co.uk/vle/browse/213">https://vle.mathswatch.co.uk/vle/browse/213</a> Listing outcomes <a href="https://vle.mathswatch.co.uk/vle/browse/214">https://vle.mathswatch.co.uk/vle/browse/214</a> Two-way tables <a href="https://vle.mathswatch.co.uk/vle/browse/217">https://vle.mathswatch.co.uk/vle/browse/217</a> Possibility spaces <a href="https://vle.mathswatch.co.uk/vle/browse/285">https://vle.mathswatch.co.uk/vle/browse/285</a> Mutually exclusive events <a href="https://vle.mathswatch.co.uk/vle/browse/216">https://vle.mathswatch.co.uk/vle/browse/216</a> Venn diagrams 1 <a href="https://vle.mathswatch.co.uk/vle/browse/286">https://vle.mathswatch.co.uk/vle/browse/286</a> Venn diagrams 2 <a href="https://vle.mathswatch.co.uk/vle/browse/287">https://vle.mathswatch.co.uk/vle/browse/287</a> Tree diagrams 1 <a href="https://vle.mathswatch.co.uk/vle/browse/317">https://vle.mathswatch.co.uk/vle/browse/317</a> Tree diagrams 2 <a href="https://vle.mathswatch.co.uk/vle/browse/342">https://vle.mathswatch.co.uk/vle/browse/342</a> <b>HIGHER TIER MATERIAL ONLY</b> Probability & Venn diagrams <a href="https://vle.mathswatch.co.uk/vle/browse/353">https://vle.mathswatch.co.uk/vle/browse/353</a> Combined events <a href="https://vle.mathswatch.co.uk/vle/browse/374">https://vle.mathswatch.co.uk/vle/browse/374</a>
17 18 19 20	Transformations & Vectors	Congruent shapes <a href="https://vle.mathswatch.co.uk/vle/browse/166">https://vle.mathswatch.co.uk/vle/browse/166</a> Congruent triangles <a href="https://vle.mathswatch.co.uk/vle/browse/333">https://vle.mathswatch.co.uk/vle/browse/333</a> Reflections <a href="https://vle.mathswatch.co.uk/vle/browse/204">https://vle.mathswatch.co.uk/vle/browse/204</a> Rotations <a href="https://vle.mathswatch.co.uk/vle/browse/205">https://vle.mathswatch.co.uk/vle/browse/205</a> Translations <a href="https://vle.mathswatch.co.uk/vle/browse/206">https://vle.mathswatch.co.uk/vle/browse/206</a> Enlargements <a href="https://vle.mathswatch.co.uk/vle/browse/312">https://vle.mathswatch.co.uk/vle/browse/312</a> Similar shapes <a href="https://vle.mathswatch.co.uk/vle/browse/307">https://vle.mathswatch.co.uk/vle/browse/307</a> Bisecting an angle <a href="https://vle.mathswatch.co.uk/vle/browse/308">https://vle.mathswatch.co.uk/vle/browse/308</a> Perpendiculars 1 <a href="https://vle.mathswatch.co.uk/vle/browse/309">https://vle.mathswatch.co.uk/vle/browse/309</a> Perpendiculars 2 <a href="https://vle.mathswatch.co.uk/vle/browse/310">https://vle.mathswatch.co.uk/vle/browse/310</a> Triangle constructions <a href="https://vle.mathswatch.co.uk/vle/browse/311">https://vle.mathswatch.co.uk/vle/browse/311</a> Loci <a href="https://vle.mathswatch.co.uk/vle/browse/332">https://vle.mathswatch.co.uk/vle/browse/332</a> Introduction to vectors <a href="https://vle.mathswatch.co.uk/vle/browse/341">https://vle.mathswatch.co.uk/vle/browse/341</a> <b>HIGHER TIER MATERIAL ONLY</b> Enlargements <a href="https://vle.mathswatch.co.uk/vle/browse/348">https://vle.mathswatch.co.uk/vle/browse/348</a> Combinations of transforms <a href="https://vle.mathswatch.co.uk/vle/browse/350">https://vle.mathswatch.co.uk/vle/browse/350</a> Area/volume scale factors <a href="https://vle.mathswatch.co.uk/vle/browse/370">https://vle.mathswatch.co.uk/vle/browse/370</a> Vector geometry <a href="https://vle.mathswatch.co.uk/vle/browse/395">https://vle.mathswatch.co.uk/vle/browse/395</a>
21 22	Co-ordinate Geometry & Straight-line graphs	Co-ordinates <a href="https://vle.mathswatch.co.uk/vle/browse/161">https://vle.mathswatch.co.uk/vle/browse/161</a> Co-ordinate problems <a href="https://vle.mathswatch.co.uk/vle/browse/271">https://vle.mathswatch.co.uk/vle/browse/271</a> Mid-point of a line segment <a href="https://vle.mathswatch.co.uk/vle/browse/294">https://vle.mathswatch.co.uk/vle/browse/294</a> Length of a line segment <a href="https://vle.mathswatch.co.uk/vle/browse/316">https://vle.mathswatch.co.uk/vle/browse/316</a> Straight-line graphs <a href="https://vle.mathswatch.co.uk/vle/browse/254">https://vle.mathswatch.co.uk/vle/browse/254</a> Gradient <a href="https://vle.mathswatch.co.uk/vle/browse/255">https://vle.mathswatch.co.uk/vle/browse/255</a> $y = mx + c$ <a href="https://vle.mathswatch.co.uk/vle/browse/325">https://vle.mathswatch.co.uk/vle/browse/325</a> Properties of straight lines <a href="https://vle.mathswatch.co.uk/vle/browse/326">https://vle.mathswatch.co.uk/vle/browse/326</a> <b>HIGHER TIER MATERIAL ONLY</b> Perpendicular gradients <a href="https://vle.mathswatch.co.uk/vle/browse/380">https://vle.mathswatch.co.uk/vle/browse/380</a>
23 24 25	Graphs of other functions and rates of change	Drawing quadratic graphs <a href="https://vle.mathswatch.co.uk/vle/browse/256">https://vle.mathswatch.co.uk/vle/browse/256</a> Properties of quadratics <a href="https://vle.mathswatch.co.uk/vle/browse/327">https://vle.mathswatch.co.uk/vle/browse/327</a> Other graphs <a href="https://vle.mathswatch.co.uk/vle/browse/328">https://vle.mathswatch.co.uk/vle/browse/328</a> Sketching functions <a href="https://vle.mathswatch.co.uk/vle/browse/257">https://vle.mathswatch.co.uk/vle/browse/257</a> Distance-time graphs <a href="https://vle.mathswatch.co.uk/vle/browse/306">https://vle.mathswatch.co.uk/vle/browse/306</a> <b>HIGHER TIER MATERIAL ONLY</b> Quadratic inequalities <a href="https://vle.mathswatch.co.uk/vle/browse/387">https://vle.mathswatch.co.uk/vle/browse/387</a> Exponential functions <a href="https://vle.mathswatch.co.uk/vle/browse/362">https://vle.mathswatch.co.uk/vle/browse/362</a> The equation of a circle <a href="https://vle.mathswatch.co.uk/vle/browse/367">https://vle.mathswatch.co.uk/vle/browse/367</a>

		Completing the square <a href="https://vle.mathswatch.co.uk/vle/browse/383">https://vle.mathswatch.co.uk/vle/browse/383</a> The sine and cosine graphs <a href="https://vle.mathswatch.co.uk/vle/browse/363">https://vle.mathswatch.co.uk/vle/browse/363</a> The tangent graph <a href="https://vle.mathswatch.co.uk/vle/browse/364">https://vle.mathswatch.co.uk/vle/browse/364</a> Transformation of graphs 1 <a href="https://vle.mathswatch.co.uk/vle/browse/365">https://vle.mathswatch.co.uk/vle/browse/365</a> Transformation of graphs 2 <a href="https://vle.mathswatch.co.uk/vle/browse/366">https://vle.mathswatch.co.uk/vle/browse/366</a> Rates of change <a href="https://vle.mathswatch.co.uk/vle/browse/1683">https://vle.mathswatch.co.uk/vle/browse/1683</a> Velocity-time graphs <a href="https://vle.mathswatch.co.uk/vle/browse/392">https://vle.mathswatch.co.uk/vle/browse/392</a>
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**In the summer term of Year 11, you should begin your GCSE 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 for your tier (Higher or Foundation). If you are not sure of your tier, please contact your teacher directly.**

<https://moodle.belperschool.co.uk/course/view.php?id=91>

**If you want further revision resources, these are also available on Weblearn on the following link**

<https://moodle.belperschool.co.uk/course/index.php?categoryid=37>