

# Urmston Grammar School

Newton Road  
Urmston  
Manchester  
M41 5UG  
email: [office@urmstongrammar.org.uk](mailto:office@urmstongrammar.org.uk)  
website: [urmstongrammar.org.uk](http://urmstongrammar.org.uk)  
Tel: 0161 748 2875  
VAT Registration Number: 120 1656 61



Dear Parent/Carer,

RE: Maths Expectations and Resources

Please find in this letter a list of recommended Maths websites that offers students the opportunity to complete additional maths work each week, to build on work done in the classroom.

**1. Dr Frost Maths - <https://www.drfrostmaths.com/>**

All students have a log in to this website. Students can watch short tutorials, complete questions and get instant feedback. Students can find the Dr Frost numbers correlating to each topic on their GCSE overview sheet which is at the front of their book.

**2. Maths Genie - <https://www.mathsgenie.co.uk/papers.html>**

Students should use this website to complete past papers. Students can mark these using the video or written solutions provide.

**3. Physics and Maths Tutor - <https://www.physicsandmathstutor.com/maths-revision/gcse-questions-edexcel/>**

Here, students can find worksheets organising by topic or by grade. There are written solutions so that students can mark their answers.

**4. OnMaths - <https://www.onmaths.com/>**

Students can create a free account, complete questions online and receive instant feedback.

I have attached the GCSE overview sheet which students also have a copy of. Here you will find the Dr Frost numbers which correspond to each topic as well as QR codes to various revision websites.

In addition to the homework set by class teachers, we expect all students to utilise the following resources, completing independent work for a minimum of one hour each week. We appreciate your support with this.

Yours sincerely,

Miss C Murray  
KS4 Coordinator in Mathematics

VAT Registration Number: 120 1656 61

Combined events	54, 55	
Mutually exclusive events	56	
Experimental probability	139	
Independent events and tree diagrams	259	
Conditional probability	280	
Venn diagrams and set notation	261	
11. Multiplicative reasoning		
Growth and decay	112, 210, 211	
Compound measures	231, 232	
Ratio and proportion	47, 60, 105	
12. Similarity and congruence		
Congruence	301	
Geometric proof		
Similarity in 2D and 3D shapes	244, 245	
13. Further trigonometry		
Accuracy	216, 218	
Graphs of sine and cosine	279	
Tangent function	243	
Calculating areas and the sine rule	302-304	
Cosine rule and bearings	302, 303	
3D trigonometry and pythagoras	230, 305	
Transformations of trig graphs	284-285	
14. Further Statistics		
Sampling		
Cumulative Frequency	257	
Box plots	258	
Drawing histograms	296	
Interpreting histograms	296	
Comparing and describing populations		
15. Equations and graphs		
Solving simultaneous equations graphically	197	
Representing inequalities graphically	292, 293	
Graphs of quadratic functions	205, 271	
Solving quadratic equations graphically	293	
Iteration	288	
Graphs of cubic functions	281	
16. Circle Theorems		
Radial and chords	238	
Tangents	264	
Angles in circles	306	
Applying circle theorems	306	
17. Further algebra		
Rearranging formulae	262	
Simplifying algebraic fractions	201, 202	
Algebraic fraction calculations	184, 294, 295	
Further surds	316-317	
Functions	175, 274, 276, 277	
Proof	290	
18. Vectors and geometric proof		
Vector notation	310	
Vector arithmetic	309	
Parallel and collinear points	311	
Solving geometric problems	311	
19. Proportion and graphs		
Direct proportion	223	
Inverse proportion	223	
Exponential functions	282	
Non-linear graphs	203, 253, 253, 255	
Translating graphs of functions	284-285	
Reflecting and stretching graphs of functions	284-285	

<p><b>Additional Resources</b></p> <p><b>Maths Genie</b>  <a href="https://www.mathsgenie.co.uk">physicssandmathsatutor.com</a>  <b>Corbett Maths</b></p> <p>Here you can find past papers, worksheets filtered by topic as well as written and video solutions</p> 	<p><b>Onmarks</b></p> <p>Here you can complete past paper questions online and receive instant feedback. You can see what grade you are working at as you work through the paper.</p> 	<p><b>Youtube - Corbett Maths</b></p> <p>Here you can find lots of videos on GCSE topics. Complete the questions as you watch the video.</p> 	<p><b>Dr Frost</b></p> <p>Use the Dr Frost numbers to the left to complete questions on these topics. You can also complete past paper questions on here too.</p> 
-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------