

Subject:

# Mathematics



HECKMONDWIKE  
GRAMMAR SCHOOL

## KS4 - Year 11 Curriculum Overview

|             | Topics being taught  | What you will be assessed on  | How you can support at home  |
|-------------|--|---|--|
| Autumn Term | <b>Algebraic Fractions</b><br><b>Rearranging Formulae</b><br><b>Cumulative Frequency Curves</b><br><b>Box Plots</b><br><b>Simultaneous Equations</b><br>- Two linear equations<br>- One linear and one quadratic<br>- Graphical methods<br><b>Surds</b><br><b>Equation of a Circle</b><br><b>Exact Trigonometric Values</b><br><b>Trigonometric Graphs</b><br><b>Functions</b> | <b>Term 1</b><br>Topic tests on:<br>Algebraic Fractions<br>Simultaneous Equations<br>Exact Calculations using Surds<br><br><b>Term 2</b><br>Topic test on Trigonometric Graphs and Transformations of Graphs<br><br>Mock exams testing all content taught since the beginning of year 9 | Encourage your child to regularly complete tasks on <a href="http://www.drfrostmaths.com">www.drfrostmaths.com</a><br><br>Look at the year 11 or year 10 curriculum on <a href="http://www.drfrostmaths.com">www.drfrostmaths.com</a> and create custom tasks or worksheets to practise. This will help develop better understanding and improve retention.<br><br>Retry Stepping Stones from previous years as a form of revision. Have they improved since they last completed it? Can they still remember that topic?<br><br>Take some time off over the Christmas Holiday to recharge but do a bit of revision as a warmup ready for the new term. |

CHRISTMAS HOLIDAYS - CHRISTMAS HOLIDAYS - CHRISTMAS HOLIDAYS - CHRISTMAS HOLIDAYS

|             | Topics being taught  | What you will be assessed on   | How you can support at home   |
|-------------|--|--|---|
| Spring Term | <b>Direct and Inverse Proportion</b><br><b>Non-linear Graphs</b><br>- Quadratic<br>- Cubic<br>- Exponential<br>- Reciprocal<br><b>Transformations of Graphs</b><br>- Reflections<br>- Translations<br>- Stretches<br>- Invariant Points<br><b>Algebraic Proof</b><br>- Proving equivalency (identities)<br>- Using expressions to prove statements | <b>Term 3</b><br>Topic test on Algebraic Proof<br><br><b>Term 4</b><br>Mock exams on all content taught since the beginning of year 9. | Help your child establish a routine for revision. Help them keep organised and ensure they spread revision across their subjects.<br><br>Encourage your child to attempt past exam papers in exam conditions and compare against model answers.<br><br>Help your child prepare for the run up to the final exams. Having a list of topics and ticking them off once your child has revised them could be useful.<br><br>Use <a href="http://www.desmos.com">www.desmos.com</a> to help remind you of the shape of curves and their equations. |

EASTER HOLIDAYS - EASTER HOLIDAYS - EASTER HOLIDAYS - EASTER HOLIDAYS - EASTER HOLIDAYS

|             | Topics being taught   | What you will be assessed on  | How you can support at home  |
|-------------|---|---|--|
| Summer Term | <b>Sequences</b><br><b>Iteration</b><br>- Approximating solutions<br><b>Fractions</b><br><b>Ratio and Proportion</b><br><b>Percentages</b><br><b>Transformations</b><br>- Enlargements and Scale Factors<br>- Reflections<br>- Rotations<br>- Translations<br><b>Standard Form</b><br><b>Index Form</b><br><b>Properties of Angles</b><br><b>Constructions and Loci</b> | <b>Term 5</b><br>Topic tests on:<br>Sequences<br>Fractions, Ratio and Proportion<br><br><b>Term 6</b><br>Topic test on Standard Form and Index Form<br><br>The final GCSE exams | Use websites like <a href="http://www.mathsgenie.co.uk">www.mathsgenie.co.uk</a> to practice exam style questions.<br><br>Support your child in the run up to their exams. Keep them in a positive state of mind with a healthy work/life balance.<br><br>Use the resources teachers provide on Teams or hand out in lessons.<br><br>Consider inviting friends over and having revision parties! Collaboration and support can help revision and keep up morale. |