

## Year 10 Maths Home learning Term 2 HIGHER

Sparx Maths is the platform we use for home learning. The goal is for every child, every week to do at least 1 hour of challenging but achievable mathematical practice outside of the classroom. This would enable children to raise their attainment and confidence in Maths. Sparx uses an algorithm to work out the level and type of questions to set each individual so they are just the right level to challenge but not too hard so that all questions can be completed.

**SPARX Maths** is set on a Wednesday and due the following Wednesday, for all students even if they don't have Maths that day. Every child can answer all of the questions in their compulsory homework by themselves. **SPARX** uses scaffolded pathways through topics which support learning unique to the individual. Every question has a support video to help answer questions they find challenging. Additional homework is available to students via XP Boost which is questions at a similar level to their compulsory home learning, target work to stretch students further and independent learning so they can look at any topic they chose and at any level of difficulty.

Homework Set	Topics	Homework Due
09 January	<ul style="list-style-type: none"> <li>Solving shape problems involving coordinates</li> <li>Finding the equation of a straight line from its gradient and a point</li> <li>Equations of parallel lines</li> <li>Consolidation</li> </ul>	15 January
16 January	<ul style="list-style-type: none"> <li>Using Pythagoras' theorem in 2D</li> <li>Translation</li> <li>Enlargement by a positive scale factor</li> <li>Consolidation</li> </ul>	24 January
25 January	<ul style="list-style-type: none"> <li>Calculating experimental probabilities</li> <li>Writing probabilities as fractions</li> <li>Expected results from repeated experiments</li> <li>Consolidation</li> </ul>	30 January
31 January	<ul style="list-style-type: none"> <li>Probabilities of mutually exclusive events</li> <li>Sample space diagrams</li> <li>Venn diagrams</li> <li>Tree diagrams for independent events</li> </ul>	06 February
07 February	<ul style="list-style-type: none"> <li>Reflection</li> <li>Enlargement by a positive or negative scale factor</li> <li>Understanding sin, cos and tan</li> </ul>	09 February
12 <sup>th</sup> -16 <sup>th</sup> February	<b>Half Term</b>	
21 February	<ul style="list-style-type: none"> <li>Finding unknown sides in right-angled triangles</li> <li>Finding unknown angles in right-angled triangles</li> <li>Using the exact values of trigonometric ratios (Higher)</li> </ul>	27 February
28 February	<ul style="list-style-type: none"> <li>Conditional probabilities from tables</li> <li>Conditional probabilities from Venn diagrams</li> <li>Using the product rule for counting</li> </ul>	05 March
06 March	<ul style="list-style-type: none"> <li>Index rules with positive indices</li> </ul>	12 March

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	<ul style="list-style-type: none"> <li>• Index rules with negative indices</li> <li>• Using standard form with positive indices</li> <li>• Using standard form with negative indices</li> <li>• Consolidation</li> </ul>	
<b>13 March</b>	<ul style="list-style-type: none"> <li>• Solving equations with two or more steps</li> <li>• Solving equations with the unknown on both sides</li> <li>• Multiplying and dividing numbers in standard form</li> <li>• Consolidation</li> </ul>	<b>19 March</b>
<b>20 March</b>	<ul style="list-style-type: none"> <li>• Solving single inequalities</li> <li>• Solving inequalities with the unknown on both sides</li> <li>• Solving simultaneous equations using elimination</li> <li>• Constructing and solving linear simultaneous equations</li> <li>• Consolidation</li> </ul>	<b>25 March</b>
<b>26 March</b>	<ul style="list-style-type: none"> <li>• Converting recurring decimals to fractions</li> <li>• Simplifying surds</li> <li>• Adding and subtracting surds</li> <li>• Multiplying and dividing surds</li> <li>• Consolidation</li> </ul>	<b>30 March</b>
<b>28 March</b>	<b>EASTER Holidays</b>	