

Subject	Year 10 Threshold Concepts – Spring Term	How to support students' learning
Mathematics	<p><u>Trigonometry</u></p> <ul style="list-style-type: none"> • Pythagoras' Theorem • Trigonometry in right angled triangles • Trigonometry and Pythagoras' Theorem in 3D (Higher tier only) • Use sine and cosine rules (Higher tier only) • Use $\frac{1}{2} ab \sin C$ to calculate areas (Higher tier only) <p><u>Functions</u></p> <ul style="list-style-type: none"> • Use function machines • Find inverse functions as revers operations • Find inverse and composite functions algebraically (Higher tier only) 	<ul style="list-style-type: none"> • Encourage your child to look back at their notes and to learn Pythagoras' Theorem. • Encourage your child to learn the trigonometric ratios SOHCAHTOA and the special angles. • Encourage your child to refer to their notes and to practise working with functions
	<p><u>Linear Graphs</u></p> <ul style="list-style-type: none"> • Generate points and plot a straight line graph • Find the equation of a straight line graph • Solve simultaneous equations using straight line graphs • Find equations of perpendicular lines (Higher tier only) • Shade regions which satisfy given inequalities (Higher tier only) • <p><u>Statistics</u></p> <ul style="list-style-type: none"> • Review averages and frequency tables from Year 9 • Draw and interpret scatter graphs • Calculate moving averages (Higher tier only) • Draw and interpret box plots, cumulative frequency curves and histograms (Higher tier only) 	<ul style="list-style-type: none"> • Encourage your child to think about where they would see scale drawings outside of the classroom and what careers would work with scale drawings and maps. • Encourage them to think about units when talking about weight and height. • Encourage your child to use the correct equipment when working with lines and angles (a pencil, ruler and protractor) • Use www.mymaths.co.uk for support if needed. Teachers will have provided your child with a login and password.