

Subject	Year 9 Threshold Concepts – Autumn Term	How to support students' learning
Mathematics	<p data-bbox="450 236 853 264"><b><u>Number operations and Integers</u></b></p> <ul data-bbox="495 272 1077 448" style="list-style-type: none"> <li data-bbox="495 272 864 301">• Multiplication and division</li> <li data-bbox="495 309 804 338">• Factors and multiples</li> <li data-bbox="495 346 1077 413">• Highest common factor and lowest common multiple</li> <li data-bbox="495 421 647 450">• BIDMAS</li> </ul> <p data-bbox="450 528 636 557"><b><u>Laws of Indices</u></b></p> <ul data-bbox="495 564 1122 671" style="list-style-type: none"> <li data-bbox="495 564 792 593">• With integer powers</li> <li data-bbox="495 601 1122 671">• With fractional and negative powers (Higher tier only)</li> </ul> <p data-bbox="450 711 719 740"><b><u>Algebraic expressions</u></b></p> <ul data-bbox="495 748 1010 892" style="list-style-type: none"> <li data-bbox="495 748 1010 777">• Understand and use algebraic notation</li> <li data-bbox="495 785 792 813">• Simplify expressions</li> <li data-bbox="495 821 797 850">• Expand and factorise</li> <li data-bbox="495 858 831 887">• Expand double brackets</li> </ul> <p data-bbox="450 935 730 963"><b><u>Fractions and Decimals</u></b></p> <ul data-bbox="495 971 1178 1299" style="list-style-type: none"> <li data-bbox="495 971 1178 1000">• Decimal addition/subtraction/multiplication/division</li> <li data-bbox="495 1008 994 1037">• Decimal places and significant figures</li> <li data-bbox="495 1045 792 1074">• Simplifying fractions</li> <li data-bbox="495 1082 936 1110">• Adding and subtracting fractions</li> <li data-bbox="495 1118 949 1147">• Multiplying and dividing fractions</li> <li data-bbox="495 1155 1032 1222">• Convert between fractions, decimals and percentages</li> <li data-bbox="495 1230 1178 1299">• Convert a recurring decimal to a fraction (Higher tier only)</li> </ul>	<ul data-bbox="1249 272 2007 1102" style="list-style-type: none"> <li data-bbox="1249 272 2007 339">• Encourage your child to practise their times tables up to 15 at home.</li> <li data-bbox="1249 347 1966 448">• When completing homework check that your child is showing all their working out and setting their work out correctly.</li> <li data-bbox="1249 456 1989 523">• Use <a href="http://www.mymaths.co.uk">www.mymaths.co.uk</a> for support if needed. Teachers will have provided your child with a login and password.</li> <li data-bbox="1249 564 1989 632">• Encourage your child to learn the laws of indices, they will have notes written in their book</li> <li data-bbox="1249 711 2002 778">• Encourage your child to look back at the algebra work they did in Year 8</li> <li data-bbox="1249 963 1944 1031">• Encourage your child to look back at the fractions and decimals work they did in Year 8</li> <li data-bbox="1249 1038 1966 1102">• Discuss with them situations where numbers have been rounded eg football crowds, newspaper headlines</li> </ul>

	<p><b><u>Equations and Inequalities</u></b></p> <ul style="list-style-type: none"> <li>• Solve linear equations</li> <li>• Solve linear equations with unknowns on both sides</li> <li>• Solve linear equations with fractions</li> </ul>	<ul style="list-style-type: none"> <li>• Encourage your child to show each stage of working clearly</li> </ul>
	<p><b><u>Ratio and Proportion</u></b></p> <ul style="list-style-type: none"> <li>• Simplify ratio</li> <li>• Divide in a given ratio</li> <li>• Solve ratio and proportion problems</li> </ul> <p><b><u>Sequences</u></b></p> <ul style="list-style-type: none"> <li>• Using term to term rules</li> <li>• Finding the nth term for a linear sequence</li> <li>• Finding the nth term for a quadratic sequence (Higher tier only)</li> <li>• Use sequence notation</li> </ul> <p><b><u>Bearings, Constructions and Loci</u></b></p> <ul style="list-style-type: none"> <li>• Construct triangles and polygons accurately</li> <li>• Make accurate scale drawings</li> <li>• Interpret maps and scales</li> <li>• Construct bisectors and perpendiculars</li> <li>• Solve loci problems</li> </ul>	<ul style="list-style-type: none"> <li>• Discuss with your child occasions where ratio /proportion are used eg recipes, currency exchange, scale models</li> <li>• Use <a href="http://www.mymaths.co.uk">www.mymaths.co.uk</a> for support if needed. Teachers will have provided your child with a login and password.</li> <li>• Encourage your child to use a sharp pencil when completing constructions</li> <li>• Encourage them to think about careers that use construction techniques</li> <li>• Use <a href="http://www.mymaths.co.uk">www.mymaths.co.uk</a> for support if needed. Teachers will have provided your child with a login and password.</li> </ul>