

# A Level Mathematics and Further Mathematics

## Essential Bridging Work

If you intend to enrol on this course you must complete the following bridging work. It should take you about 4 hours. **You will need this work for your first lesson. Make sure you bring it with you.**

<p>Topic</p>	<p><b>Radian Measure</b></p> <p>During your GCSE studies of mathematics you solved problems involving angles when they were measured in degrees. Degrees are not the only unit we use for the measurement of angles. One of the topics on the AS mathematics syllabus is the study of radian measure as an alternative way of measuring angles.</p>
<p>Task</p>	<p><b>Radian Measure</b></p> <p>Find out how to convert between degrees and radians.</p> <p>Be able to calculate the arc length or sector area when the angle is given in radians.</p> <p>Be able to plot a graph of <math>\sin \theta</math>, <math>\cos \theta</math>, and <math>\tan \theta</math>, for <math>0 \leq \theta \leq 2\pi</math>.</p> <p>Be able to solve equations such as <math>\sin \theta = \frac{1}{\sqrt{2}}</math>, <math>0 \leq \theta \leq 2\pi</math>.</p>
<p>Resources</p>	<p><b>Online Research</b></p> <p>You can use any source of information you like but here are some links to get you started, All the links can be found on our Padlet site:  <a href="https://padlet.com/franklinmaths/bridgingtask">https://padlet.com/franklinmaths/bridgingtask</a></p> <p>1)Radian Measures- Brief introduction - Degrees and Radians  <a href="https://youtu.be/Jj2KJVIAOPo">https://youtu.be/Jj2KJVIAOPo</a></p> <p>2)Radian Measures-Arc length <a href="https://youtu.be/ZUlcNoL1N_g">https://youtu.be/ZUlcNoL1N_g</a></p> <p>3)Radian Measures –Area of a Sector <a href="https://youtu.be/1znFOO0CGic">https://youtu.be/1znFOO0CGic</a></p> <p>4)Graphs of Trig functions <a href="https://youtu.be/h53862-27IQ">https://youtu.be/h53862-27IQ</a></p> <p>5)Trigonometry 2-Introduction to equations <a href="https://youtu.be/spca2H2H-RM">https://youtu.be/spca2H2H-RM</a></p>
<p>Presentation</p>	<p><b>Assessment Task for AS Mathematics and AS Further Mathematics</b></p> <p>The Assessment task you must bring with you to your first lesson can be found here:  <a href="https://padlet.com/franklinmaths/bridgingtask">https://padlet.com/franklinmaths/bridgingtask</a></p> <p><b>Assessment Task 2 AS Further Mathematics and Optional Extension task for AS Mathematics.</b></p> <p>There is also a link to some A level exam questions which will test both your knowledge of radian measure as well as drawing on GCSE trigonometry to find the area of a triangle or missing sides and angles in a triangle. You must bring this with you to your first AS Further Maths Lesson.</p>