

Learning Plan 3

YEAR: 11 SUBJECT: Maths (Higher)
BLWYDDYN: 11 PWNC: Mathemateg (Uwch)

Knowledge focus:




Solving quadratic and cubic equations, circle theorems, transformations.



Skills, knowledge and understanding to be developed in this Learning Plan:	Key terms to be learned in this LP:								
<ul style="list-style-type: none"> Recall and use knowledge of mathematical content Select and apply mathematical methods Interpret and analyse problems and generate strategies to solve them Select and use methods for solving quadratic equations Solve cubic equations using a trial and improvement method Understand and construct geometrical proofs using circle theorems. Complete, interpret and describe transformations. 	<table border="0"> <tr> <td>Factorise</td> <td>Quadratic</td> <td>Tangent</td> <td>Transform</td> </tr> <tr> <td>Translate</td> <td>Enlarge</td> <td>Rotate</td> <td>Reflect</td> </tr> </table>	Factorise	Quadratic	Tangent	Transform	Translate	Enlarge	Rotate	Reflect
Factorise	Quadratic	Tangent	Transform						
Translate	Enlarge	Rotate	Reflect						

Week/Wythnos 1 Learning Intentions: mock exams	L.I. assessments:	Homework/Gwaith cartref:
<ul style="list-style-type: none"> Consolidate and apply mathematical knowledge and understanding to Numeracy Unit 1 and Maths Unit 2 (Higher Tier) 	<p>Be able to:</p> <ul style="list-style-type: none"> Recall and use knowledge of mathematical content (AO1) Select and apply mathematical methods (AO2) Interpret and analyse problems and generate strategies to solve them (AO3) 	<p>Mathswatch</p> <p>Set: 6/1/26</p> <p>Due: 12/1/26</p>

Week/Wythnos 2/3 Learning Intentions:	L.I. assessments:	Homework/Gwaith cartref:
<ul style="list-style-type: none"> Factorise quadratic expressions Factorise quadratic expressions using the difference of two squares Solve quadratic equations by equating to zero Solve quadratic equations using the formula Form and manipulate quadratic equations Use systematic trial and improvement methods to find approximate solutions to quadratic and cubic equations, justifying the accuracy of the solution 	<p>Be able to:</p> <ul style="list-style-type: none"> Solve quadratic equations by first selecting the most appropriate method Solve cubic equations using a trial and improvement method 	<p>Mathswatch</p> <p>Set: 12/1/26</p> <p>Due: 19/1/26</p> <p>Set: 19/1/26</p> <p>Due: 26/1/26</p>

<p>Week/Wythnos 4 Learning Intentions:</p> <ul style="list-style-type: none"> • Apply circle theorems to determine lengths and angles • Combine circle theorems with Pythagoras and trig ratios • Understand and construct geometrical proofs using circle theorems 	<p>L.I. assessments:</p> <p>Be able to:</p>  <p>Understand and using properties of shape, including circles, angles and triangles</p> <p>Understand and construct geometrical proofs using circle theorems.</p>	<p>Homework/Gwaith cartref:</p> <p>Mathswatch</p> <p>Set: 26/1/26</p> <p>Due: 2/2/26</p>
<p>Week/Wythnos 5 Learning Intentions:</p> <ul style="list-style-type: none"> • Reflect shapes given the equation of a vertical, horizontal or diagonal line ($y = x$ or $y = -x$) • Rotate shapes through a given angle and direction using a centre of rotation • Enlarge shapes by a positive whole number or fractional scale factor (no centre of enlargement) • Enlarge shapes using a centre of enlargement and a positive whole number scale factor on squared paper or a coordinate grid • Enlarge shapes using a centre of enlargement and a positive fractional scale factor on squared paper or a coordinate grid • Recognise and describe translations using column vectors • Transform an object applying two successive transformations 	<p>L.I. assessments:</p> <p>Be able to:</p> <p>Complete, interpret and describe any transformation.</p>  <p>Complete two successive transformations.</p>	<p>Homework/Gwaith cartref:</p> <p>Mathswatch</p> <p>Set: 2/2/26</p> <p>Due: 9/2/26</p>
<p>Week/Wythnos 6 Learning Intentions: mock exam review and feedback</p> <ul style="list-style-type: none"> • Read and respond to feedback based on mock exams • Self-assess performance and identify areas for improvement • Take steps to begin making improvement in identified areas 	<p>L.I. assessments:</p> <p>Be able to:</p>  <p>Recall and use knowledge of mathematical content (AO1) Select and apply mathematical methods (AO2)</p> <p>Interpret and analyse problems and generate strategies to solve them (AO3)</p>	<p>Homework/Gwaith cartref:</p> <p>Mathswatch</p> <p>Set: 9/2/26</p> <p>Due: 23/2/26</p>