


Learning Plan 3		Subject/Pwnc: Mathemateg	Year/Blwyddyn: 10 (A)	
<p><u>The Four Purposes in Maths and Numeracy:</u></p> <p>Ambitious, capable learners who: set themselves high standards; seek and enjoy challenge; are increasingly knowledgeable and skilful; are questioning; enjoy solving problems; can communicate effectively; can explain the ideas and concepts; can use number effectively; understand how to interpret data and apply mathematical concepts</p> <p>Enterprising, creative contributors who: connect and apply their knowledge and skills to create ideas; think creatively to reframe and solve problems; identify and grasp opportunities; take measured risks</p> <p>Ethical, informed citizens</p> <p>Healthy, confident individuals who: face and overcome challenge; have the skills and knowledge to manage everyday life</p> <p>Knowledge focus/what matters:</p> <p><i>Algebra uses symbol systems to express the structure of mathematical relationships.</i></p>			 <p>CHRIST THE WORD CATHOLIC SCHOOL CRIST Y GAIR</p>	
Learning objective/key question	What will I know and be able to do? I can...	How will I develop my skills? (Success Criteria)	Homework/Gwaith cartref to support progress	
Weeks 1-2: Mock exam	Revise, consolidate and complete mock exam for Maths and Numeracy Unit 2 (non-calculator).	<p>Recall and use mathematical knowledge:</p> <ul style="list-style-type: none"> demonstrate conceptual understanding through remembering and using mathematical facts, relationships, concepts and techniques follow direct instructions to solve problems involving routine procedures fluently <p>Select and apply mathematical methods:</p> <ul style="list-style-type: none"> select and use the mathematics and resources needed to solve a problem fluently select and apply mathematical methods to solve nonstandard or unstructured, multi-step problems fluently make decisions when tackling a given task, for example, choosing how to display given information communicate mathematically, using a wide range of mathematical language, notation and symbols to explain reasoning and to express mathematical ideas unambiguously <p>Demonstrate strategic competence by making connections between different aspects of mathematics and using mathematical skills in unfamiliar contexts:</p>	Wk 1	
			Wk 2	

		<ul style="list-style-type: none"> • demonstrate strategic competence by interpreting and analysing problems and generating strategies to solve them • devise strategies to solve non-routine or unfamiliar problems, breaking them into smaller, more manageable tasks where necessary • construct arguments and proofs using logical reasoning and deduction • interpret findings or solutions in the context of the original problem • use inferences and deductions made from mathematical information to draw conclusions 		
Weeks 3-5: Discovering algebraic relationships	<p>(RDR) Generate linear and non-linear sequences given the nth term rule Find the nth term of a sequence, given numerically or diagrammatically, where the rule is linear Recognise, describe and continue patterns in number Describe, in words and symbols, the rule for the next term of a sequence Simplify algebraic fractions, including the addition and subtraction of fractions with constant terms as the denominators</p> <p>(EDU/AMA) Use coordinates in 4 quadrants Draw, interpret, recognise and sketch the graphs of $x = a$, $y = b$, $y = ax + b$ Know and use the form $y = mx + c$ to represent a straight line where m is the gradient of the line, and c is the value of the y-intercept</p> <p>Draw and interpret quadratic graphs of the form $y = ax^2 + bx + c$, and draw the line $y = k$ in order to solve $ax^2 + bx + c = k$</p>	<p>Understanding: I can explain how algebraic rules, sequences and graphs represent patterns and relationships in different ways. I can choose the most effective representation (words, symbols, tables, graphs) to understand or explore an algebraic idea.</p> <p>Communicating & Skills: I can present clear, accurate algebraic work using correct notation and structured steps. I can use graphing tools or digital software to explore relationships and support explanations for others.</p> <p>Fluency: I can work confidently with sequences, coordinates and straight-line graphs, applying methods accurately. I can simplify expressions and algebraic fractions reliably and use $y = mx + c$ fluently.</p> <p>Reasoning: I can explain why a rule, graph or algebraic method works using clear, logical steps. I can compare different approaches and justify which method is most efficient or appropriate.</p> <p>Problem Solving: I can link ideas from sequences, algebra and graphs to solve unfamiliar problems independently. I can test strategies, refine my approach and apply what I know to new contexts, including real-world situations.</p>	Wk 3 Wk 4	
	Show your learning	Success criteria in the box above		
Week 6: Feedback and review of mock exam	<p>Read and respond to feedback based on mock exams</p> <p>Self-assess performance and identify areas for improvement</p>	<p>Recall and use mathematical knowledge</p> <p>Select and apply mathematical methods</p> <p>Demonstrate strategic competence by making connections between different aspects of mathematics and using mathematical skills in unfamiliar contexts</p>	Wk 5 Wk 6	

	Take steps to begin making improvement in identified areas			
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