Learning Plan 2	Subject/Pwnc: Mathemateg	Year/Blwyddyn: 10 (B) – Miss Duffy/Mrs M-C

The Four Purposes in Maths and Numeracy:

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

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

Ethical, informed citizens

Healthy, confident individuals who:
face and overcome challenge; have the skills and knowledge to manage everyday life

Knowledge focus/what matters:

Angles and transformations:
Geometry focuses on relationships involving shape, space and position, and measurement focuses on quantifying phenomena in the physical world.

Probability:
Statistics represent data, probability models chance, and both support informed inferences and decisions.

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 1-3: EDU/AMA	• Recall and use angle properties, including: ○ sum of angles at a point ○ sum of angles on a straight line ○ opposite angles at a vertex ○ alternate, corresponding and interior angles within parallel lines ○ sum of angles in a triangle • Recall and apply angle properties of triangles: ○ angle properties of right-angled, isosceles and equilateral triangles ○ the exterior angle of a triangle is equal to the sum of the interior angles at the other two vertices • Recall and apply angle properties of quadrilaterals, including:	I can explore different ways to solve problems. I can use maths to model, predict, and explain unfamiliar situations. I can support others by explaining ideas in different ways. I can adapt and combine methods to solve unfamiliar problems quickly and reliably. I can link ideas from different topics to solve complex problems independently. I can explain why my solution works in a clear and structured way. I can construct proofs or structured chains of reasoning and evaluate alternative arguments.	Wk 1 Wk 3	Mathswatch homework Set: 3/11/25 Due: 10/11/25 Set: 17/11/25 Due: 24/11/25

	○ sum of angles in a quadrilateral ○ angle properties of special quadrilaterals, including rectangles, parallelograms and kites • Solve problems involving angle properties and facts • Calculate and solve problems involving angles in polygons			
Weeks 4-7: EDU/AMA Transforming shapes	• Describe and draw shapes with line symmetry • Draw lines of symmetry on a shape • Understand order of rotational symmetry and describe and draw shapes with rotational symmetry • Describe and draw ○ reflection in a given line ○ rotation of 90º or 180º, clockwise or anticlockwise, using a centre of rotation ○ translation with direction and distance of horizontal and vertical movement ○ enlargement with a positive integer or a positive, fractional scale factor, and a centre of enlargement	I can explore different ways to solve problems. I can adapt and combine methods to solve unfamiliar problems quickly and reliably. I can explain why my solution works in a clear and structured way. I can use graphing software to investigate geometric concepts I can link ideas from different topics to solve complex problems independently. I can evaluate strategies, iterate solutions and generalise results to new contexts. I can design and test multiple solution paths, select the most effective, and justify that choice. I can critique others' arguments and refine my own reasoning.	Wk 5 Wk 7	Mathswatch homework Set: 1/12/25 Due: 8/12/25 Set: 15/12/25 Due: 6/1/25
Assessment at the start of week 5				

Learning Plan 2	Subject/Pwnc: Mathemateg	Year/Blwyddyn: 10 (B) – Mrs Draper

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Ethical, informed citizens

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Angles and transformations:
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Probability:
Statistics represent data, probability models chance, and both support informed inferences and decisions.

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 1-7: RDR Calculating and understanding probabilities	Week 1 • Understand and use the vocabulary of probability, including notions of uncertainty and risk • Understand the meaning of the terms 'fair', 'an even chance', 'certain', 'likely', 'unlikely ' and 'impossible' • Recall and use the fact that the probability scale extends from 0 to 1, and that the total probability of all the possible outcomes of an experiment is 1 Week 2 • Calculate theoretical probabilities based on equally likely outcomes • Understand that probabilities may be expressed as fractions, decimals or percentages	I can explore different ways to solve problems. I can use maths to model, predict, and explain unfamiliar situations. I can support others by explaining ideas in different ways. I can solve problems independently using what I've learned. I use fluent calculation. I reflect on solution/method efficiency. I can adapt and combine methods to solve unfamiliar problems quickly and reliably. I can explain why my solution works in a clear and structured way.	Wk 2	Mathswatch homework Set: 10/11/25 Due: 17/11/25

	Weeks 3-4 • Estimate the probability of an event as the proportion of times it has occurred – link to experimental evidence and relative frequency • Draw and interpret a graphical representation of relative frequency against the number of trials • Understand that the long-term stability of relative frequency is expected • Compare an estimated probability from experimental results with a theoretical probability • Understand and use the expected number of successes of an event when an experiment is repeated, and events are equally likely	I can construct proofs or structured chains of reasoning and evaluate alternative arguments. I can critique others' arguments and refine my own reasoning. I can link ideas from different topics to solve complex problems independently. I can evaluate strategies, iterate solutions and generalise results to new contexts. I can design and test multiple solution paths, select the most effective, and justify that choice.	Wk 4	Mathswatch homework Set: 24/11/25 Due: 1/12/25
	Assessment at the start of week 5			Mathswatch homework
	Weeks 5-7 • Identify all the outcomes of a combination of experiments, including lists, sample space diagrams, tree diagrams and Venn diagrams • Know and use the fact that if A and B are mutually exclusive events, then the probability of A or B occurring is P(A) + P(B) • Recall and apply the fact that if A and B are independent events, then the probability of A and B occurring is P(A) x P(B) • Recognise when the addition of probabilities for mutually exclusive events and the multiplication of probabilities for two independent events is needed		Wk 6	Set: 8/12/25 Due: 15/12/25