

Learning Plan 2		Subject/Pwnc: Mathemateg		Year/Blwyddyn: 7	
<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>Reading scales: <i>Geometry</i> focuses on relationships involving shape, space and position, and measurement focuses on quantifying phenomena in the physical world.</p> <p>Number lines, rounding, number bonds and mental addition/subtraction: <i>The number system</i> is used to represent and compare relationships between numbers and quantities.</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
<p>Weeks 1-2:</p> <p>Using scales and number lines</p> <p>(continued from LP1)</p>	<ul style="list-style-type: none">Understand the number system and how it can be represented on any number line.Understand how to interpret any value on any number line, extending to negative numbers and decimals.Understand the relationship between place value and number lines; make use of this relationship to place any set of numbers in order of size.Use inequality notation to show correct comparison of the size of two numbers.Place, identify and/or estimate the value of any number on any number line.Determine the midpoint of two numbers, on a number line or otherwise.Find the median value of a set of numbers.Compare and order numbers (in ascending or descending order).		<p>Understanding: I can explain concepts fluently and adapt explanations for different audiences; I can apply my understanding to different types of problems; I am beginning to connect maths to other subjects or real-life contexts.</p> <p>Communicating and skills: I can work with a range of symbols and expressions, even when they're new to me.</p> <p>Fluency: I have built a strong memory for maths techniques so I don't need to keep relearning them; I'm confident using what I know in different types of problems.</p> <p>Logical reasoning: I can give reasons for my answers and explain my thinking clearly; I can justify my solutions using examples, diagrams, or symbols.</p> <p>Problem-solving: I can try different strategies if my first idea doesn't work; I can connect ideas from different lessons or subjects.</p>		<p>Wk 1-2</p> <p>Mathswatch homework</p> <p>Set:</p> <p>Due:</p>

<p>Weeks 3 – 4:</p> <p>When, how and why do we round numbers?</p>	<ul style="list-style-type: none"> Understand what is meant by “round to the nearest...” and “round to ... decimal place(s)”. Know how to round values correctly, by applying understanding correctly and without relying on “tricks”. Understand why some numbers round to the same value even when rounding to a different level of accuracy. Understand the concept of rounding and how it relates to number lines. Understand what is meant by significant figures. Round numbers to the nearest 10, 100, 1000. Round numbers to the nearest whole number. Round numbers to any number of decimal places. Round answers displayed on a calculator screen. Solve problems involving rounding in reverse (bounds). Round numbers to significant figures. 	<p>Understanding: I can explain concepts fluently and adapt explanations for different audiences; I can apply my understanding to different types of problems.</p> <p>Communicating and skills: I can work with a range of symbols and expressions, even when they’re new to me; I can switch between different number representations on a scientific calculator.</p> <p>Fluency: I can use maths methods quickly and accurately; I’m confident using what I know in different types of problems.</p> <p>Logical reasoning: I can give reasons for my answers and explain my thinking clearly; I can justify my solutions using examples, diagrams, or symbols.</p> <p>Problem-solving: I can try different strategies if my first idea doesn’t work; I can connect ideas from different lessons or subjects.</p>	Wk 3-4	<p>Mathswatch homework</p> <p>Set:</p> <p>Due:</p>
<p>Weeks 5-6:</p> <p>Using number bonds effectively</p>	<ul style="list-style-type: none"> Understand and explain how to work out number bonds using any numbers, including fractions, mixed numbers, negatives, or decimals with any number of decimal places. Explain how number bonds are useful in adding/subtracting numbers efficiently. Use correct mathematical notation and convention to set out working. Recall all the number bonds to 10 using positive integers. Work out the number bonds to 10 using any numbers, including fractions, mixed numbers, negatives, or decimals with any number of decimal places. Work out the number bonds to 100 and other multiples of 10, by applying knowledge of number bonds to 10. Use efficient methods to add or subtract numbers mentally 	<p>Understanding: I can explain concepts fluently and adapt explanations for different audiences; I am beginning to connect maths to other subjects or real-life contexts.</p> <p>Communicating and skills: I can work with a range of symbols and expressions, even when they’re new to me; I can rearrange symbols to solve problems in different ways.</p> <p>Fluency: I have built a strong memory for maths techniques so I don’t need to keep relearning them; I can use maths methods quickly and accurately.</p> <p>Problem-solving: I can try different strategies if my first idea doesn’t work.</p>	Wk 5-6	<p>Mathswatch homework</p> <p>Set:</p> <p>Due:</p>
<p>Week 7:</p> <p>Planning a bake sale</p>	<ul style="list-style-type: none"> Apply what I know and understand, and the mathematical skills I have developed, to plan a bake sale Read a weight scale diagram to the nearest 10 g and a volume scale diagram to the nearest 10 ml Record masses and volumes as decimal numbers, understanding place value Use number bonds to add ingredient masses and volumes Round totals to the nearest appropriate unit (10 g or 50 ml) Read and plot times on a printed 24-hour time-axis Add and subtract time intervals using number bonds in minutes and hours Round start and end times to the nearest 5 minutes for a realistic schedule 	<p>Understanding: I can apply my understanding to different types of problems; I am beginning to connect maths to other subjects or real-life contexts.</p> <p>Communicating and skills: I can produce organised written explanations with appropriate notation and units. I can use digital tools to check solutions. I can plan and organise my time well. I can form my own ideas.</p> <p>Fluency: I can use maths methods quickly and accurately; I’m confident using what I know in different types of problems.</p> <p>Logical reasoning: I think carefully and logically when solving problems; I can give reasons for my answers and explain my thinking clearly; I can justify my solutions using examples, diagrams, or symbols.</p> <p>Problem-solving: I can turn a real-life situation into a maths problem using diagrams or equations; I can try different strategies if my first idea doesn’t work; I can connect ideas from different lessons or subjects.</p>	Wk 7	<p>Mathswatch homework</p> <p>Set:</p> <p>Due:</p>