

## NRICH problems (nrich.maths.org) linked to the Curriculum for Wales Mathematics PoS for Year 3

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N.B. This is work in progress – we would really appreciate your comments. Please email [emp1001@cam.ac.uk](mailto:emp1001@cam.ac.uk)

Key:      Normal text: LNF Statement      Area of Learning Skill ❖      Extended skills ▲						
Strand / PoS Element	PoS Objective	NRICH Resources	PoS Objective	NRICH Resources	PoS Objective	NRICH Resources
<b>Using Number Skills</b> Use number facts and relationships	Read and write numbers to 1000	<a href="#">How Would We Count?</a> I * <a href="#">Tom's Number</a> P *	Compare and estimate with numbers up to 100.	<a href="#">Coded Hundred Square</a> P * <a href="#">Which Scripts?</a> P *	Explain the value of a digit in numbers up to 1000. ❖	
<b>Using Number Skills</b> Use number facts and relationships	Use mental strategies to recall number facts within 20.		Recall 2, 3, 4, 5 and 10 multiplication tables and use to solve multiplication and division problems.	<a href="#">A Mixed-up Clock</a> P * <a href="#">A Square of Numbers</a> P * <a href="#">Ordering Cards</a> P * <a href="#">Music to My Ears</a> P *	Multiply numbers by 10.	<a href="#">Multiply Multiples</a> P *
<b>Using Number Skills</b> Use number facts and relationships	Identify multiples of 2, 3, 4, 5 and 10; use the term multiple ❖	<a href="#">Three Neighbours</a> P **	Identify odd and even numbers up to 1000. ❖	<a href="#">Take Three Numbers</a> P * <a href="#">Magic Vs</a> P **		
<b>Using Number Skills</b> Fractions, decimals, percentages and ratio	Use halves and quarters.  <b>Recognise a quarter as a half of a half.</b> ❖	<a href="#">Fraction Match</a> P *	Halve 2-digit numbers in the context of number, money and measures.		Find fractional quantities linked to known multiplication facts, e.g. $\frac{1}{3}$ of 18, $\frac{1}{5}$ of 15.	

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<b>Using Number Skills</b>  Calculate using mental and written methods	Find differences within 100.	<a href="#">Square Subtraction</a> <b>P ***</b>	Use mental strategies to add and subtract 2-digit numbers.	<a href="#">Dicey Addition</a> <b>G *</b> <a href="#">Totality</a> <b>G *</b> <a href="#">Prison Cells</a> <b>P **</b> <a href="#">Spot Thirteen</a> <b>I *</b> <a href="#">Strike it Out</a> <b>G *</b>	Use partitioning to double and halve 2-digit numbers.         Define a negative number as being less than 0. ❖	         <a href="#">Tug Harder!</a> <b>G *</b> <a href="#">Swimming Pool</a> <b>P *</b> <a href="#">Sea Level</a> <b>P *</b>
<b>Using Number Skills</b> Estimate and check	Check subtraction using addition.		Check halving using doubling		Check multiplication using repeated addition.	
<b>Using Number Skills</b> <b>Manage money</b>	Use different combinations of money to pay for items up to £2 and calculate the change.	<a href="#">How Much Did it Cost?</a> <b>P **</b>	Order and compare items up to £10.		Record money spent and saved.	
<b>Using Measuring Skills</b> Length, weight/mass, capacity	Recognise that perimeter is the distance around a shape.		Use standard units to estimate and measure: length: measure on a ruler to the nearest ½ cm.	<a href="#">Take One Metre</a> <b>P *</b>	Use standard units to estimate and measure: weight/mass: use 5g, 10g and 100g weights.	
<b>Using Measuring Skills</b> Length, weight/mass, capacity	Use standard units to estimate and measure: capacity: use litres and half litres; measure to the nearest 100ml.		Choose between metric units to measure a length. ❖			

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<b>Using Measuring Skills</b> Time	Tell the time to the nearest 5 minutes on an analogue clock and calculate how long it is to the next hour.	<a href="#">Two Clocks</a> P **	Read hours and minutes on a 12-hour digital clock using am/pm conventions.	<a href="#">5 on the Clock</a> P ***	Calculate start times, finish times and durations using hours, 30-minute intervals and 15-minute intervals. ❖	
<b>Using Measuring Skills</b> Temperature Area and volume, Angle and position	Take temperature readings using thermometers and interpret readings above and below 0°C.		Find areas by counting squares	<a href="#">Torn Shapes</a> P *	Identify right angles. ❖	<a href="#">Square It</a> G *
<b>Using Measuring Skills</b> Area and volume, Angle and position	Recognise that two right angles make a half turn, and that four right angles make a full turn. ❖	<a href="#">Turning Man</a> P *	Describe an angle as more or less than a right angle. ❖		Use the four compass points to describe directions.	<a href="#">Chippy's Journey</a> P *
<b>Using Geometry Skills</b> Shape	Recognise and classify triangles, squares, rectangles, pentagons and hexagons, including irregular cases. ❖	<a href="#">Folding Flowers 1</a> P * <a href="#">Matching Triangles</a> P * <a href="#">Shapely Lines</a> I *	Identify congruent shapes. ❖		Recognise 3D shapes, including prisms. ❖	<a href="#">Sponge Sections</a> P **
<b>Using Algebra Skills</b> Number sequences	Explore sequences of whole numbers involving addition and subtraction, e.g. counting in 2s, 3s and 4s from different starting points. ❖		Write the next two (or more) terms in sequences that involve addition or subtraction. ❖	<a href="#">The Mathemagician's Magic Spells</a> P *		

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<b>Using Algebra Skills</b> Functions and graphs  <b>Using Algebra Skills</b> Equations and inequalities	Use one and two step function machines to generate input and output involving addition and subtraction within 100; express, in words, the operations of function machines. ❖		Equations and inequalities  Find an 'unknown' in one step equations and use this to derive other facts, e.g. $37 + \square = 100$ therefore $100 - 37 = \square$ . ❖	<a href="#">Super Shapes</a> P *	Equations and inequalities  List numbers that are 'greater than' or 'less than' another number. ❖  Read statements about numbers expressed using an inequality sign, e.g. $6 > 4$ . ❖	
<b>Using Data Skills</b> Collect and record data Present and analyse data Interpret results	Represent data using: lists, tally charts, tables and diagrams.	<a href="#">Our Sports</a> I * <a href="#">Class 5's Names</a> P *	Represent data using: bar charts and bar line graphs labelled in 2s, 5s and 10s.		Represent data using: pictograms where one symbol represents more than one unit using a key.  Represent data using: Venn and Carroll diagrams  Extract and interpret information from charts, timetables, diagrams and graphs.	<a href="#">If the World Were a Village</a> I *  <a href="#">Venn Diagrams</a> P * <a href="#">Carroll Diagrams</a> P **  <a href="#">The Domesday Project</a> I * <a href="#">Now and Then</a> P *