Gwinear School Non-Negotiables

Times tables to be practiced on a daily basis by classes to ensure all other skills are embedded.

Mental Mathematics

	CLASS ONE	CLASS TWO		CLASS THREE		CLASS FOUR	
	Reception	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Mental Mathematics	Count in steps of **2 and 10 confidently.** Add simple numbers mentally e.g. 2+2 Subtract simple numbers mentally e.g. 2-2 Recall names of shapes. Know simple properties of 2D shapes. Know some names of 3D shapes. Mathematical reasoning and explaining strategies. Say one more/less than a given number. Follow instructions using positional language.	**Confidently count in 2,5 10 times tables and answer corresponding questions.** Know that addition can be done in any order. Find a small difference by counting up. Number bonds to 10 and 20. Knowledge of doubles and near doubles. Know how to add 9 to a number by adding 10 and subtracting 1. Use addition and subtraction as inverse operations. Add simple numbers mentally- up to 2 digits and beyond. Know days, months and seasons in order. Know properties of 2D and some 3d shapes e.g. name the shape. Practise counting around the clock- 5's, 10's etc	**Confidently count in 2,5 10, 3, 4 times tables and answer corresponding questions.** Find a difference by counting up using 2 digit numbers. Know patterns of similar calculations e.g. 3=5=8, 13=5=18. Know the inverse calculations for addition and subtractions when asked and prompted. Add and subtract mentally bridging through 10 or 100. Use knowledge of number facts and place value to multiply or divide mentally e.g.10/2= 5 Confidently recite number bonds to 20. Know left/right turns and show this physically.	**Confidently count in 3,4, 6, 7 times tables and answer corresponding questions with pace.** Understand that addition can be done in any order. Find the difference by counting up using 3 digit numbers. Identify near doubles e.g. 35+36= 71 Add and subtract 9 by adding 10 and subtracting 1 using 3 digit numbers. Use patterns of similar calculations e.g. 4+8=12, 20+80= 120, 400+800= 1200. Use the relationship between addition and subtraction. Complete some inverse calculations. Use knowledge of place value to add 3 digit numbers- use number bonds to help. Add and subtract numbers mentally bridging 10 and 100.	**Confidently know times tables up to 8X10. Be able to answer times tables questions with pace.** Add large numbers by partitioning mentally. E.g. adding tens first, then units and then the total. Find a small difference by counting up- up to 4 digit numbers. Use similar patterns of calculations e.g. 2x3=6, 2x30=60, 2x300=600. Use patterns of similar calculations e.g. 4+8=12, 20+80= 120, 400+800= 1200. Add and subtract numbers mentally by using knowledge of number bonds to 10 and 100. Use knowledge or doubles or halves to multiply and divide e.g. Double 34= 30+30+4+4=68 Know that multiplication and division are inverse operations e.g. 7x5=35 and 35÷5= 7. Begin to recite equivalent measures.	Mentally recall converting fractions to decimals to percentages and vice versa. Add using methods such as partitioning e.g. 324+58= 324+50+8 Look for pairs that make ten when adding or subtracting. Add simple decimals using partitioning. Add and subtract simple amounts of money using place value. Know all properties of shapes and identify the correct language. Add or subtract to the nearest multiple of 10,100 or 1000 then adjust. E.g. 274+99= 274+100-1 Identify near doubles e.g. 1.5 +1.6= double 1.5+0.1=3.1 Know and use inverse operations for addition and subtractions and multiplication and division. **Know all multiplication facts**	Find a difference by counting up through the next multiple of 10,100 or 100. Identify near doubles e.g. work out that 421+313= double 400 +21 minus 13. Mentally recall how many sides, edges, faces are in a shape. **Mentally recall multiplication facts up to 12x12 quickly.** Add mentally three ir more multiples of 10 e.g. 80+70+40+90= Respond to oral questions such as 0.05+0.3= and explain the method clearly. Add and subtract large numbers mentally. Use related facts for doubling or halving. E.g. double 176= 200+140+12=352 Use number facts and knowledge of place value to multiply or divide mentally by 10, 100, 100. E.g. 84÷100= 0.84 Know division facts and how to

Gwinear School Non-Negotiables

Times tables to be practiced on a daily basis by classes to
ensure all other skills are embedded.

		and use appropriate language.	Know the properties of 3D shapes and describe them accurately.	Shift digits to the left/right to multiply/divide by 10.	Mentally order numbers with pace.	up to 12x12 and recite these when asked.	work them out mentally, explaining methods.
		Understand how to read scales quickly.	Understand how to read and interpret scales accurately.	Use knowledge of number facts to multiply or divide mentally.	Begin to add some simple decimals mentally.	Doubling and halving e.g. double 78= double 70 +double 8 Partitioning- e.g. 13x 21= (13x20) and (13x1) Use place value to multiply and divide by 10,100 and 1000. E.g. 30=400= 13,000 8200÷10=820 8200÷100=82 8200÷1000= 8.2	Mentally recall converting fractions to decimals to percentages and vice versa. Add decimals quickly. Add percentages quickly. Add amounts of money mentally, explaining methods. Mentally put numbers in order. Including fractions and decimals. Mentally convert measures quickly. E.g. grams into kg etc.