Longhill Primary School
Mental Maths Non Negotiables

Mental Maths skills should be taught when linked to projects where possible to ensure real world application.

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Mental Mathematics	**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	**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.	**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	**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	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	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.

	and some 3d shapes e.g. name the shape. Practise counting around the clock- 5's, 10's etc and use appropriate language. Understand how to read scales quickly.	Know left/right turns and show this physically. Know the properties of 3D shapes and describe them accurately. Understand how to read and interpret scales accurately.	value to add 3 digit numbers- use number bonds to help. Add and subtract numbers mentally bridging 10 and 100. Shift digits to the left/right to multiply/divide by 10. Use knowledge of number facts to multiply or divide mentally.	Know that multiplication and division are inverse operations e.g. 7x5=35 and 35÷5= 7. Begin to recite equivalent measures. Mentally order numbers with pace. Begin to add some simple decimals mentally.	subtractions and multiplication and division. **Know all multiplication facts up to 12x12 and recite these when asked.** 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	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 work them out mentally, explaining methods. 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.

Key Skills

Recall a range of calculations using mixed operations.
Recall shape properties.
Add and subtract using a range of strategies.

Be confident, secure and happy in mental number knowledge.