

Ellingham C of E Primary School
Year 4 Assessment Expectations
Mathematics: Calculation 2

End of Term 1	End of Term 2	End of Term 3
Calculation: Multiplication and Division		
I can recognise commutativity in mental calculations.	I can recognise and use factor pairs and commutativity in mental calculations.	I can recognise and use factor pairs and commutativity in a wider range of mental calculations.
	I am beginning to write statements about the equality of expressions e.g. using the distributive law $9 \times 7 = 5 \times 7 + 4 \times 7$ and the associative law $(2 \times 3) \times 4 = 2 \times (3 \times 4)$. I can combine knowledge of number facts and rules of arithmetic to solve mental and written calculations.	I can write statements about the equality of expressions e.g. using the distributive law $39 \times 7 = 30 \times 7 + 9 \times 7$ and the associative law $(2 \times 3) \times 4 = 2 \times (3 \times 4)$. I can combine knowledge of number facts and rules of arithmetic to solve mental and written calculations.
I can use rounding, estimation and inverse operations to check answers to calculations and determine, in the context of a problem, levels of accuracy.		
I can recall and use $\times$ and $\div$ facts for 2, 3, 4, 5, 8 and 10 multiplication tables. I can connect 2, 4, and 8 tables through doubling.	Recall $\times$ and $\div$ facts for multiplication tables up to 12×12 . Recognises patterns and relationships between number facts.	I can fluently recall $\times$ and $\div$ facts for multiplication tables up to 12×12 . I explain patterns and relationships between number facts.
I am beginning to use place value, known and derived facts to $\times$ and $\div$ mentally (e.g. $60 \div 3 = 20$ can be derived from $2 \times 3 = 6$), including $\times$ by 0 and 1; $\div$ by 1; $\times$ together 3 numbers.	I use place value, known and derived facts to $\times$ and $\div$ mentally (e.g. $600 \div 3 = 200$ can be derived from $2 \times 3 = 6$), including $\times$ by 0 and 1; $\div$ by 1; $\times$ together 3 numbers.	I confidently use place value, known and derived facts to $\times$ and $\div$ mentally, including $\times$ by 0 and 1; $\div$ by 1; $\times$ together 3 numbers.
I am beginning to multiply two-digit and three-digit numbers by a one-digit number using formal written layout of short multiplication.	I can multiply two-digit and three-digit numbers by a one-digit number using formal written layout of short multiplication.	I can confidently multiply two-digit and three-digit numbers by a one-digit number using formal written layout of short multiplication.
	I am beginning to use the formal written method of short division for calculations involving 2 and 3 digit numbers divided by a single digit with exact answers.	I can fluently use the formal written method of short division for calculations involving 2 and 3 digit numbers divided by a single digit with exact answers.
Problem Solving: I can solve simple problems in contexts involving multiplying and adding to multiply two digit numbers by one digit.	I can solve simple problems in contexts involving multiplying and adding, including using the distributive law to multiply 2 digit numbers by 1 digit, integer scaling problems and harder correspondence problems such as n objects are connected to m objects	I can solve more complex problems in contexts involving multiplying and adding, including using the distributive law to multiply two digit numbers by one digit, integer scaling problems and harder correspondence problems such as n objects are connected to m objects.