



# St Elizabeth's Catholic Voluntary Academy

## Progression in Arithmetic

FS2	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
<p><b>Advent</b></p> <p>Recognise 'few/lots' Understands just right Recognises less/more than and the same. Recognises most/least and the same. Counting to 10 Recognises 1-5 Picks out one object at a time from a pile. My hand has 5 fingers, I have 10 fingers. Counting to 15. Recognises 1-13 1:1 correspondence – picks out one object at a time from a pile. Can count back, taking away with support. Counting to 20 Counting from 20-29 Count in 10s Recognises 1-10 1:1 correspondence counting up to 10 objects. Double facts up to 3 My halving learn its up to 3.</p>	<p><b>Advent</b></p> <p><b>Recap any FS2 objectives.</b></p> <p>Count forward and backwards to 10. One more/ one less with numbers to 10. Ordering number/ greater than less than signs. Part whole within 10 Addition and subtraction within 10. Counting in 2s to 20, 5s to 100 and 10s to 100 'Learn its' with number bonds to 10 Numbers to 20</p>	<p><b>Advent</b></p> <p><b>Recap any Y1 objectives.</b></p> <p>Recognise the place value of each digit in a two-digit number (tens, ones). (WTS TAF 2) Partition two-digit numbers into different combinations of tens and ones. (EXS TAF 9) Read and write numbers to at least 100 in numerals (WTS TAF 1) and in words. Count in steps of 2 and 5 from 0. (WTS TAF 5) Compare and order numbers from 0 up to 100; use &lt;, &gt; and = signs. Recognise odd and even numbers. Recall addition and subtraction facts to 20, using number bonds to 10. (EXS TAF 11) Recall doubles and halves to 20. +/- two-digit numbers and tens. (EXS TAF 3) +/- two-digit number and ones (EXS TAF 3); + three one-digit numbers. Solve word problems with +/- (up to 2, two-digit numbers) (EXS TAF 10)</p>	<p><b>Advent</b></p> <p><b>Recap any Y2 objectives</b></p> <p>1/10/100 more or less Count in 50s Partition three-digit numbers e.g. <math>789 = 700 + 80 + 9</math> +/- multiples of 10/100 using known facts <math>9 - 2 = 7</math>, <math>90 - 20 = 70</math>, <math>900 - 200 = 700</math> <math>x/\div</math> by 2, 5 and 10 +/- a 1-digit number to a 2/3-digit number (crossing tens) +/- multiples of 10 to a 2/3-digit number e.g. <math>456 + 30</math> +/- multiple of 100 e.g. <math>148 + \underline{\quad} = 648</math> Column method no exchange Column method exchange</p>	<p><b>Advent</b></p> <p><b>Recap any Y3 objectives</b></p> <p>Round to 10/100/1000 Count in 1000s Partition 4-digit numbers e.g. <math>8345 = 8000 + 300 + 40 + 5</math> 1/10/100/1000 more or less Roman numerals and calculations with Roman numerals Column method +/- with exchange Subtract by counting on e.g. <math>804 - 796</math> <math>x</math> by 10 and 100 <math>\div</math> by 10 and 100 <math>x</math> by 1 and 0 e.g. <math>4 \times 3 \times 1</math> or <math>4 \times 0 \times 3</math> <math>\div</math> by 1 and itself e.g. <math>9 \div 1</math> and <math>9 \div 9</math> <math>x/\div</math> 3, 6, 9 and 7</p>	<p><b>Advent</b></p> <p><b>Recap any Y4 objectives</b></p> <p>Round numbers to the nearest 10/100/1000/10000/100000 Roman numerals and calculations with Roman numerals Compare numbers to 1,000,000 + and – numbers with exchange Multiples/factors Squared and cubed numbers <math>x/\div</math> by 10, 100 and 1000</p>	<p><b>Advent</b></p> <p><b>Recap any Y5 objectives</b></p> <p>+/- numbers up to 1,000,000 Short and long <math>\times</math> Short and long <math>\div</math> including decimal remainders Factors Multiples Prime numbers Squared and cubed numbers Order of operations Improper fractions to mixed numbers and vice versa <math>x/\div</math> by 10, 100 and 1000 10% and 1% of an amount +/- fractions +/- mixed numbers <math>x</math> fractions by whole numbers <math>x</math> fractions by fractions divide fractions by whole numbers Find fractions of an amount</p>

		Recall x facts for the x2, x5 and x10 multiplication tables. (EXS TAF 12)  Solve problems involving multiplication (EXS TAF 12)				
<p><b>Lent</b> Counting up to 100 Reading numbers – 1-20 Actual counting – up to 20 objects Ordering numbers – 5 out of number 1-10 (non-consecutive) Counting multiples of 5 – 50 Counting backwards from 20 Double facts up to 10. Half its up to 10. I can add by counting on 2,3,4,5. I can add the right amount and count how many altogether. I can add numbers of objects to 10. I can take away the right amount (and find out how many are left). I can take away numbers of objects to 10. I can give objects out fairly.</p>	<p><b>Lent</b> <b>Advent term objectives and</b>  Addition and subtraction within 20  Doubling numbers with numbers to 10.  Multiplication 2,5 and 10 Making arrays/sets  Comparing numbers to 100 Greater than less than.  Halving numbers up to 20-sharing equally  Division – making groups  Showing numbers to 100 in 10s and ones  Knowing odd and even numbers and being able to identify any given number as odd or even.  Number bonds to 10 number bonds to 100</p>	<p><b>Lent</b> <b>Advent term objectives and</b>  Count in tens from any number, forwards and backwards.  +/- numbers mentally: a two-digit number and tens. (WTS TAF 3)  Partition 2-digit numbers into different combinations of tens and ones. (EXS TAF 9)  +/- two 2-digit numbers within 100. (EXS TAF 10)  +/- mentally two, 2-digit numbers e.g. 23 + 24. (EXS TAF 10)  Recognise related facts within number bonds to 20 e.g. if 7 + 3 = 10 then 17 + 3 = 20. (EXS TAF 11)  Use the inverse and commutative law to find number bonds to 20 e.g. 15 + 5 = 20 so 5 + 15 = 20 and 20 – 15 = 5. (EXS TAF 11)  Use the inverse for +/- to check results and work out missing numbers.  Solve one step problems with addition and subtraction.  Recall and write x and ÷ facts for the x2, x5 and x10 multiplication tables. (EXS TAF 12)  Show that multiplication of two numbers can be done in any order (commutative). (EXS TAF 12)</p>	<p><b>Lent</b> <b>Advent term objectives and</b>  x/÷by 3, 4 and 8  Short multiplication no exchange e.g. 24 x 2  Short multiplication exchange e.g. 36 x 3  Find 1/2, 1/3 and ¼ of a number  +/- fractions with same denominators  Double and halve numbers up to 100</p>	<p><b>Lent</b> <b>Advent objectives and</b>  x 3 numbers e.g. 5 x 2 x 6  3-digit x 1-digit with exchange  x and ÷ by 11/12  +/- fractions with same denominator  + more than 2 fractions (same denominator)  Whole number subtract a fraction  Fractions of amount  Short division  Double and halve numbers up to 1,000</p>	<p><b>Lent</b> <b>Advent objectives and</b>  Short and long multiplication up to 4-digit by 2-digit  Short division up to 4-digits  Short division with remainders  Converting improper fractions to mixed numbers and vice versa  +/- fractions  + more than 2 fractions  +/- mixed numbers  x fractions by whole numbers  Find a fraction of an amount</p>	<p><b>Lent</b> <b>Advent objectives and</b>  Equivalent fractions  Simplifying fractions  % of amounts – all percentages  Algebra and ratio problems</p>

		<p>Solve problems involving multiplication and division, repeated addition and mental methods, including problems in contexts. (EXS TAF 12)</p> <p>Find simple fractions of numbers, for example, <math>\frac{1}{2}</math> of 6 = 3 (EXS TAF 13)</p> <p>Recognise, find, name and write fractions <math>\frac{1}{4}</math>, <math>\frac{2}{4}</math> and <math>\frac{3}{4}</math> of a set of objects. (EXS TAF 13)</p> <p>Recognise the equivalence of <math>\frac{2}{4}</math> and <math>\frac{1}{2}</math>.</p>				
<p><b>Pentecost</b>  Counting up to 100  Reading numbers – 1-20  Actual counting – up to 20 objects  Ordering numbers – 5 out of number 1-10 (non-consecutive)  Counting multiples of 5 – 50  Counting backwards from 20  Double facts up to 10  Half its up to 10  I can add by counting on 2,3,4,5.  I can add the right amount and count how many altogether.  I can add numbers of objects to 10</p>	<p><b>Pentecost</b>  <b>All Advent and Lent Objectives</b>  Numbers to 100  Halving with odd numbers up to 20</p>	<p><b>Pentecost</b>  <b>All Advent and Lent Objectives</b>  Count in steps of 3 from 0.  Partition 2-digit numbers into different combinations of tens and ones (EXS TAF 9)  Recall and use +/- facts, doubles and halves to 20 fluently and derive and use related facts up to 100.  +/- two 2-digit numbers using written methods. (EXS TAF 10)  +/- numbers mentally: two 2-digit numbers (EXS TAF10)  Recognise and use the inverse relationship between +/- and use this to find related facts (EXS TAF 11), check calculations</p>	<p><b>Pentecost</b>  All Advent and Lent objectives</p>	<p><b>Pentecost</b>  All Advent and Lent objectives</p>	<p><b>Pentecost</b>  Advent and Lent objectives and  Find 10% of a number by dividing by 10  Double and halve numbers up to 10,000</p>	<p><b>Pentecost</b>  All Advent and Lent objectives</p>

I can take away the right amount (and find out how many are left),  
I can take away numbers of objects to 10  
I can give objects out fairly  
Counting multiples of 10 – 0 – 100  
Counting multiples of 2 – 10  
Counting backwards from 10 (extend to 20)  
I can read a subtraction number sentence

and solve missing number problems.  
Solve word problems with +/- including those involving quantities and measures.  
Reason about +/- e.g. the sum of 3 odd numbers will always be odd. (GDS TAF 19)  
Can solve two step word problems. (GDS TAF 20)  
Recall and use  $\times/\div$  facts for the  $\times 5$ ,  $\times 2$  and  $\times 10$  multiplication tables, including recognising odd and even numbers. (EXS TAF 12)  
Demonstrate an understanding of commutative law in multiplication (EXS TAF 12)  
Solve problems involving multiplication and division using multiplication and division facts, including problems in contexts. (EXS TAF 12)  
Reason about multiplication and make deductions e.g.  $18 \times 5$  cannot be 92 as 92 is not a multiple of 5. (GDS TAF 18)  
Solve divisions with remainders.  
Recognise, find, name and write fractions  $1/3$ ,  $1/4$ ,  $2/4$  and  $3/4$  of shapes and a quantity. (EXS TAF 13)  
Compare fractions of amounts e.g.  $1/4$  of 20 is more than  $1/2$  of 8.