## Fishponds

Church of England Academy

## 'Loving to Learn, Learning to Love'

## Calculation Progression

## EyFS Key Representations



## Addition

## Curriculum Expectation

## Number

- Finds the total number of items in two groups by counting all of them.
- Says the number that is one more than a given number.
- Finds one more or one less from a group of up to five objects, then ten objects.
- In practical activities and discussion, beginning to use the vocabulary involved in adding and subtracting.
- Records, using marks that they can interpret and explain.
- Begins to identify own mathematical problems based on own interests and fascinations.

Early Learning Goal
Children count reliably with numbers from one to 20 , place them in order and say which number is one more or one less than a given number. Using quantities and objects, they add and subtract two single-digit numbers and count on or back to find the answer.


## Subtraction

## Curriculum Expectation

## Number

- Uses the language of 'more' and 'fewer' to compare two sets of objects
- Finds one more or one less from a group of up to five objects, then ten objects.
- In practical activities and discussion, beginning to use the vocabulary involved in adding and subtracting.
- Records, using marks that they can interpret and explain.
- Begins to identify own mathematical problems based on own interests and fascinations.


## Early Learning Goal

Children count reliably with numbers from one to 20, place them in order and say which number is one more or one less than a given number. Using quantities and objects, they add and subtract two single-digit numbers and count on or back to find the answer.



Curriculum Expectation
Early Learning Goal
They solve problems, including doubling, halving and sharing.


Year 1 to Year 6 Calculations

|  |  | Stage 1 | Stage 2 | Stage 3 | Stage 4 | Stage 5 | Stage 6 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | read, write and interpret mathematical statements involving addition ( + ), subtraction $(-)$ and equals ( $=$ ) signs <br> represent and use number bonds and related subtraction facts within 20 <br> add and subtract one-digit and two-digit numbers to 20 , including zero <br> solve one-step problems that involve addition and subtraction, using concrete objects and pictorial representations, and missing number problems such as $7=-9$. | Solve problems with addition and subtraction: using concrete objects and pictorial representations, including those involving numbers, quantities and measures <br> Applying their increasing knowledge of mental and written methods <br> Recall and use addition and subtraction facts to 20 fluently, and derive and use related facts up to 100 <br> Add and subtract numbers using concrete objects, pictorial representations, and mentally, including: *a two-digit number and ones:a two-digit number and tens: two two-digit numbers *adding three one-digit numbers <br> Show that addition of two numbers can be done in any order (commutative) and subtraction of one number from another canno $\dagger$ <br> Recognise and use the inverse relationship between addition and subtraction and use this to check calculations and solve missing number problems. | Add and subtract numbers mentally, including: <br> - a three-digit number and ones - a three-digit number and tens a three-digit number and hundreds <br> Add and subtract numbers with up to three digits, using formal written methods of columnar addition and subtraction | Add and subtract numbers with up to 4 digits using the formal written methods of columnar addition and subtraction where appropriate | Add and subtract whole numbers with more than 4 digits, including using formal written methods (columnar addition and subtraction) <br> Add and subtract numbers mentally with increasingly large numbers | Continue to embed year 5 addition and subtraction |















| Finding Fractions of |
| :---: | :---: | :---: | :---: |
| Amounts |
| $1 / 3$ of $15=5$ |$|$



Expanded Method Unclear Multiple


Expanded Method Unclear Multiple with Remainder

|  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1 | 0 | 5 | B | r 2 | 2 |
| 4 | 4 | 2 | 3 | 4 |  |  |
| - | 4 | 0 | 0 | 0 |  | (1000 $\times 4$ ) |
|  |  |  | 3 | 4 |  |  |
| - |  | 2 | 0 | 0 |  | (50 $\times 4$ ) |
|  |  |  | 3 | 4 |  |  |
| - | - |  |  | 2 |  | $(8 \times 4)$ |
|  |  |  |  | 2 |  |  |
| - | - |  |  |  |  |  |

Expanded Method Unclear Multiple


Bus Stop


Bus Stop converting Remainder to decimal

|  | 0 | 5 | 3 | 1 | .5 | 7 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 7 | 3 | 3 | 3 | 2 | 1 | 1 |
|  |  |  |  |  |  |  |
| 4 | $\div$ | 7 |  |  |  |  |

Long Division Dividing by a 2 digit number

| number |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | 1 | 0 | 2 | r | 1 | 7 |
| 2 | 5 | 2 | 5 | 6 | 7 |  |  |  |
|  | - | 2 | 5 | 0 | 0 |  | (100 | 0 $\times 25$ ) |
|  |  |  |  | 6 | 7 |  |  | - |
|  | - |  |  | 5 | 0 |  | (2x | *25) |
|  |  |  |  | 1 | 7 |  |  |  |
|  |  |  |  |  |  |  |  |  |



Dividing Decimals



