## Year Three Addition




| Column method with dienes or place value counters$334+153=487$ | Children drawing pictures of dienes in the column method | Formal column method involving no regrouping $334+153=487$ |
| :---: | :---: | :---: |
|  | $334+153=487$ |  |
|  |  | $\begin{array}{l\|l\|l} H & T & 0 \end{array}$ |
|  |  |  |
|  |  | 3 \% |
|  | $1 / 1 / 11$. | $+10 \quad 5 \quad 5$ |
|  |  |  |
| Compact Columnar Addition with regrouping |  |  |
| Column method with dienes or place value counters $227+156=383$ | Children drawing pictures or using support of pictures of concrete objects in the column method $227+156=383$ | Formal column method involving regrouping $227+156=383$ |


| \||| |  |  | H | T |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| \||||||| | - ®® 毋®® |  | 2 | 2 | 7 |
|  | -0. ๑®\% |  | 1 | 5 | 6 |
|  |  |  | 3 | 8 | 3 |

## Subtraction






## Multiplication

## Year Three

- recall and use multiplication and division facts for the 3,4 and 8 multiplication tables
- write and calculate mathematical statements for multiplication using the multiplication tables that they know, including for two-digit numbers times one-digit numbers, using mental and progressing to formal written methods
- solve problems, including missing number problems

Count in Multiples

Use of practical apparatus to support counting in multiples of 3,4 and 8


Use of pictorials to support counting on in multiples


24
twenty
8 groups of 3 is 24

Mentally counting on in multiples. Children should use pattern spotting to support their understanding of multiples.
$0,5,10,15, .$.
'Multiples of 4 end in $0,2,4,6,8$. They are even numbers.'
' 53 cannot be a multiple of 8 because it's not an even number'

## Number Line



## Bar Model

Children can use concrete objects to support understanding of bar model


Children can draw own bar model to support solving multiplication problems.


## Grid Method

## Grid method-dienes

The two digit number is partitioned horizontally with the tens digit coming first. The number is represented by the dienes.
$18 \times 3=$

Grid method
$18 \times 3=$

- Partition the number into tens and ones
- Multiply the pairs of numbers
- Record the answer in the grid
- Recombine to find the answers



## Division

| Year Three <br> - Recall and use division facts for the 3,4 and <br> - Write and calculate mathematical statements numbers times one-digit numbers, using ment | Pupils should be able to: <br> multiplication tables <br> division using the multiplication tables that they know, including for two-digit and progressing to formal written methods |
| :---: | :---: |
| Repeated Subtraction |  |
| Children use previous methods learned in year 2, but focus on aspect of reper | eated subtraction to prepare for subtracting when chunking. |
| Partitioning using the Part Whole Model |  |
| Children can use place value counters as well as drawings to support this method conceptually. | Children should be encouraged to write down the related time tables facts to support them with the formal method of the part whole model. |



