## Maths - Year 4

Calculating 8: Developing fluency with the column method of adding

| Key Vocabulary |  |
| :--- | :--- |
| Rounding | Increasing or decreasing a number or amount <br> to make it closer to (usually) a multiple of ten, <br> or a whole measuring unit, e.g. rounding 353 <br> to 350 or 89 cm to 1 metre. |
| Bridging | Partitioning (splitting) the number to be added <br> or subtracted to help with calculating, <br> e.g. 8 + 9 = (8 + 2) + 7 = 17. |
| Column | Written method for adding, subtracting, <br> multiplying or dividing in which numbers are <br> written in columns according to their value. |
| Partition | Splitting a number in different ways, usually to <br> help with calculating, e.g. 27 can be partitioned <br> into 2 tens (20) and 7 ones (7). |
| Carrying | Transferring one digit to another place value <br> column to support calculating. |

## Mathematical Skills

- Group units to make tens, regroup tens to make hundreds and hundreds to make thousands. - Identify from the numbers in a calculation where grouping and regrouping are needed.
- Review numbers in a calculation to make a reliable estimate.
- Review numbers in a calculation and explain whether or not a column method is the most efficient way to carry out the calculation.
- Explain that columns are added from right to left so that we can group and regroup.
- Illustrate grouping and regrouping on a hundreds, tens and units place value frame extending to use thousands.
- Record the carrying digit in the correct column and refer to this as the given number of tens or hundreds to carry.
- Explain the quantity value of each column in column adding.


## Mathematical Methods

- Knowing when to use the column method e.g. when crossing a place value column.
$167=56=$


Exploring grouping or regrouping in the column method e.g. in empty box problems.


Adding 3- and 4-digit numbers using the column method e.g.


A context for adding three 3-digit numbers e.g. the number of sandwiches sold.
Sandwiches sold in a shop over one week

| Day | Cheese | Ham | Chicken | Egg |
| :--- | :---: | :---: | :---: | :---: |
| Monday | 134 | 124 | 145 | 116 |
| Tuesday | 126 | 203 | 121 | 192 |
| Wednesday | 224 | 205 | 235 | 189 |
| Thursday | 212 | 271 | 183 | 269 |
| Friday | 123 | 119 | 195 | 137 |

- Solving measuring problems involving adding.
- Exploring the column method and money.

| Item | Small | Medium | Large |
| :--- | ---: | ---: | ---: |
| Pizza | $£ 5.99$ | $£ 8.99$ | $£ 12.99$ |
| Pasta | $£ 3.95$ | $£ 6.95$ | $£ 8.95$ |
| Salad | $£ 2.55$ | $£ 4.55$ | $£ 5.55$ |
| Garlic bread | $£ 1.95$ | $£ 2.95$ | $£ 3.95$ |
| Soft drink | $£ 1.25$ | $£ 2.25$ | $£ 3.25$ |
| Coffee | $£ 2.15$ | $£ 2.50$ | $£ 3.45$ |



## Can you..?

- How many customers visited each shop over the weekend?
Number of visitors to each shop over the weekend

|  | Bakery | Supermarket | Book shop | Toy shop | Newsagents |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Saturday | 299 | 845 | 325 | 389 | 451 |
| Sunday | 299 | 967 | 150 | 376 | 35 |
| Total | $?$ | $?$ | $?$ | $?$ | $?$ |

- Ravi is scoring 347 in a computer game. His best score is 750. How many more points does he need to score to equal his best?
- A comic costs 99 p and a notepad costs $£ 1.25$. How much would it cost to buy 2 comics and 1 notepad?

