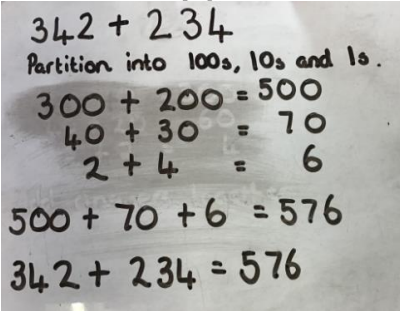
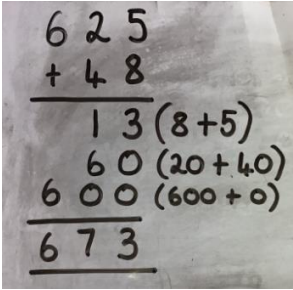
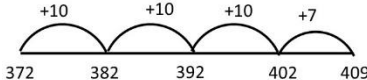
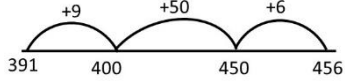
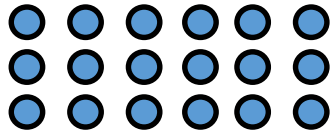
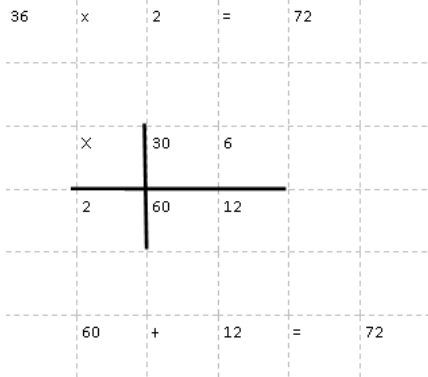
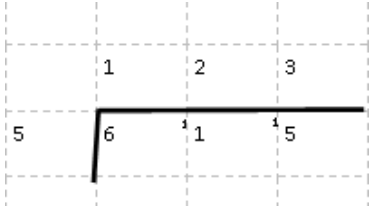


# St. Peter's C E Primary Academy

Lower key stage 2 Calculation policy.



# Year 3 and 4 Calculation Policy

| Addition  | Subtraction  | Multiplication  | Division  |
|---|--|---|---|
| <p>Partitioning for addition</p>  <p>Expanded column addition</p>  | <p>Counting on to find the difference in subtraction.</p> <p><math>409 - 372 =</math><br/> <math>(10 + 10 + 10 + 7)</math><br/> <math>= 37</math></p>  <p><math>456 - 391 =</math><br/> <math>(50 + 9 + 6)</math><br/> <math>= 65</math></p>  | <p>Arrays</p>  <p><math>6 \times 3 = 18</math>   <math>18 \div 6 = 3</math><br/> <math>3 \times 6 = 18</math>   <math>18 \div 3 = 6</math></p> <p>Grid Method</p>  | <p>Short division with 1 or 2 digit numbers</p>  <p>Key Division Vocabulary:<br/> share, group, divide, divided by, half</p> |

### Ladder addition

|       |   |   |   |  |
|-------|---|---|---|--|
|       | 5 | 5 | 2 |  |
| +     |   | 6 | 2 |  |
| <hr/> |   |   |   |  |
|       |   |   | 4 |  |
|       | 1 | 1 | 0 |  |
|       | 6 | 0 | 0 |  |
| <hr/> |   |   |   |  |
|       | 6 | 1 | 4 |  |

### Expanded column subtraction

|       |       |                                |                   |       |
|-------|-------|--------------------------------|-------------------|-------|
| 872   | -     | 426                            | =                 |       |
|       |       | <sup>60</sup><br><del>70</del> | <sup>1</sup><br>2 |       |
| -     | 400   | 20                             | 6                 |       |
| <hr/> |       |                                |                   |       |
|       | 400 + | 40 +                           | 6                 | = 446 |
| <hr/> |       |                                |                   |       |

### Ladder method for multiplication

|       |   |       |        |  |
|-------|---|-------|--------|--|
| 23    | x | 3     | =      |  |
|       | 2 | 3     |        |  |
| -     |   | 3     |        |  |
| <hr/> |   |       |        |  |
|       | 9 | (3x3) |        |  |
|       | 6 | 0     | (20x3) |  |
| <hr/> |   |       |        |  |
|       | 6 | 9     |        |  |
| <hr/> |   |       |        |  |

### Short multiplication

|       |   |   |   |  |
|-------|---|---|---|--|
| 23    | x | 6 | = |  |
|       | 2 | 3 |   |  |
| -     |   | 6 |   |  |
| <hr/> |   |   |   |  |
| 1     | 3 | 8 |   |  |
| <hr/> |   |   |   |  |
| 1     | 1 |   |   |  |

### Compact column subtraction

|       |   |                              |                   |  |
|-------|---|------------------------------|-------------------|--|
| 998   | - | 239                          | =                 |  |
|       | 9 | <sup>8</sup><br><del>9</del> | <sup>1</sup><br>8 |  |
| -     | 2 | 3                            | 9                 |  |
| <hr/> |   |                              |                   |  |
|       | 7 | 5                            | 9                 |  |
| <hr/> |   |                              |                   |  |

### Compact column addition

|       |   |   |   |
|-------|---|---|---|
|       | 5 | 5 | 2 |
| +     |   | 6 | 2 |
| <hr/> |   |   |   |
|       | 6 | 1 | 4 |
| <hr/> |   |   |   |
|       | 1 |   |   |

$$\begin{array}{r} 6842 \\ + 1383 \\ \hline 8225 \\ \hline 11 \end{array}$$

### Missing Number problems:

$$78 - \underline{\quad} = 54$$
$$398 - \underline{\quad} = 243$$

$$\begin{array}{r} 4 \square 2 \\ - \square 6 \square \\ \hline 121 \end{array}$$

$$\begin{array}{r} 4362 \\ - \square 4 \square 1 \\ \hline 1931 \end{array}$$

### Key Subtraction

**Vocabulary:** subtract, minus, less than, the difference between

### Key Multiplication

**Vocabulary:** times, double, multiplied by, product, groups of, lots of, equal groups.

### Missing Number Problems

$$27 + \underline{\quad} = 84$$

$$384 + \underline{\quad} = 473$$

$$\begin{array}{r} 3 \square 4 \\ + 2 \square \\ \hline 407 \\ 1 \end{array}$$

$$\begin{array}{r} 4843 \\ + 2\square 7\square \\ \hline 7221 \\ 1 \ 1 \ 1 \end{array}$$

**Key Addition Vocabulary:**

sum, total, plus, add,  
altogether.

