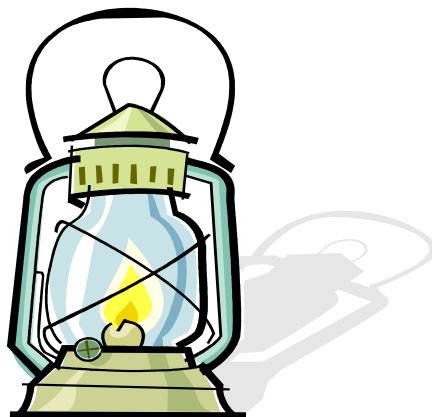




'Shine like a lantern in the presence of the Lord.'



# *YEAR 5 AND 6 MATHEMATICS*

## *CALCULATION METHODS*

**Always think:**

**Can I do it mentally?**

**Can I do it with jottings?**

**Do I need a written method (vertical layout)?**

**Do I need a calculator?**

# MENTAL ADDITION GUIDELINES

## Year 5 (MENTAL CALCULATION supported with jottings)

### Using place value (KF)

Count in 0.1s, 0.01s

e.g. Know what 0.1 more than 0.51 is

10s	1s	0.1s	0.01s
	0	5	1

### Partitioning (KF)

e.g.  $2.4 + 5.8 = 2 + 5 + 0.4 + 0.8$   
 $= 7 + 1.2$   
 $= 8.2$

0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1
1.1	1.2	1.3	1.4	1.5	1.6	1.7	1.8	1.9	2
2.1	2.2	2.3	2.4	2.5	2.6	2.7	2.8	2.9	3
3.1	3.2	3.3	3.4	3.5	3.6	3.7	3.8	3.9	4
4.1	4.2	4.3	4.4	4.5	4.6	4.7	4.8	4.9	5
5.1	5.2	5.3	5.4	5.5	5.6	5.7	5.8	5.9	6
6.1	6.2	6.3	6.4	6.5	6.6	6.7	6.8	6.9	7
7.1	7.2	7.3	7.4	7.5	7.6	7.7	7.8	7.9	8
8.1	8.2	8.3	8.4	8.5	8.6	8.7	8.8	8.9	9
9.1	9.2	9.3	9.4	9.5	9.6	9.7	9.8	9.9	10

Children can be supported by visual apparatus / representations of mixed numbers when they are first learning this method

## Year 5 (MENTAL CALCULATION supported with jottings)

### Counting on

Add two decimal numbers by adding the 1s, then the 0.1s/0.01s

e.g.  $5.72 + 3.05$  as  $5.72 + 3 (8.72) + 0.05 = 8.77$

Add near multiples of 1 (Adjusting Method)

e.g.  $6.34 + 0.99$

e.g.  $5.63 + 0.9$

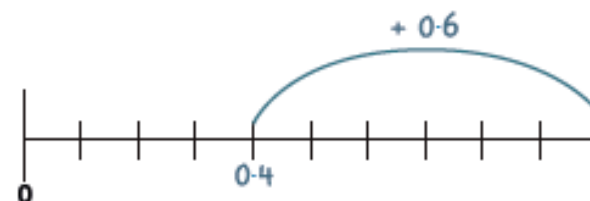
Count on from large numbers

e.g.  $6834 + 3005$  as  $9834 + 5$

### Using number facts (KF)

Number bonds to 1 to 1 decimal place (dp) and to the next whole number (e.g.  $5.7 + 0.3$ )

e.g.  $0.4 + 0.6$



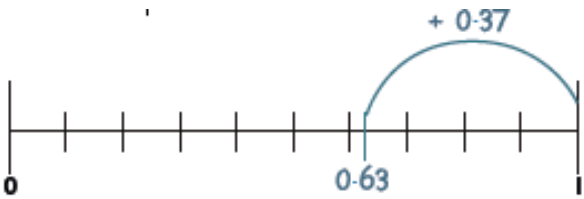
Number bonds to 10 to 1 decimal place (dp) / Add to the next 10 from a decimal number.

e.g.  $7.8 + 2.2 = 10$

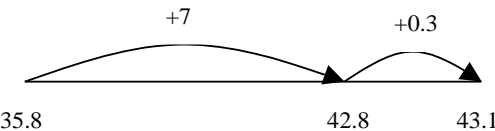
e.g.  $3.6 + 6.4 = 10$

A number line can be used to support children whilst learning and using these mental methods of addition.

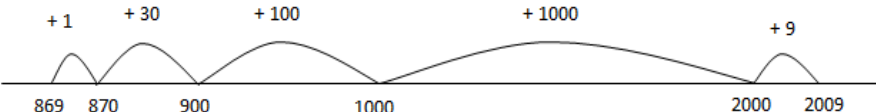
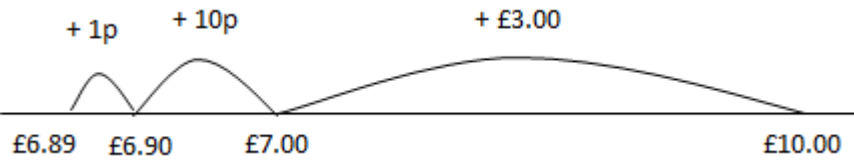
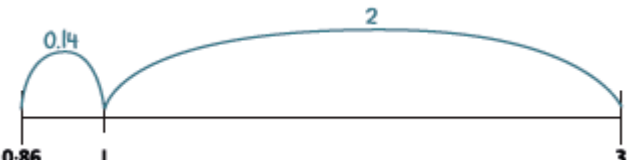
## MENTAL ADDITION GUIDELINES

Year 6 (MENTAL CALCULATION supported with jottings)	Year 6 (MENTAL CALCULATION supported with jottings)
<p><b>Using place value</b>            Count in 0.1s, 0.01s, 0.001s            e.g. Know what 0.001 more than 6.725 is</p> <p><b>Partitioning</b>            e.g. <math>9.54 + 3.23 = 9 + 3 + 0.5 + 0.2 + 0.04 + 0.03</math>  <math>= 12 + 0.7 + 0.07</math>  <math>= 12.77</math></p> <p><b>Counting on</b>            Add two decimal numbers by adding the 1s, then the 0.1s/0.01s/0.001s            e.g. <math>6.314 + 3.006</math> as <math>6.314 + 3</math> (<math>9.314</math>) <math>+ 0.006 = 9.32</math></p> <p>Add near multiples of 1 (Adjusting Method)            e.g. <math>6.345 + 0.999</math>            e.g. <math>5.673 + 0.9</math></p> <p>Count on from large numbers            e.g. <math>16\,375 + 12\,003</math> as <math>16\,375 + 12\,000</math> (<math>28\,375</math>) <math>+ 3</math></p>	<p><b>Using number facts (KF)</b>            Number bonds to 1 up to 3 decimal places (dp) and to the next multiple of 1            e.g. <math>0.4 + 0.6</math>            e.g. <math>0.63 + 0.37</math>            e.g. <math>0.207 + 0.793</math>            e.g. <math>4.2 + 0.8</math>            e.g. <math>3.67 + 0.33</math>            e.g. <math>2.355 + 0.645</math></p>  <p>Number bonds to 10 to 2 decimal places (dp) / Add to the next 10.            e.g. <math>4.62 + 5.38</math>            e.g. <math>7.08 + 2.92</math></p>

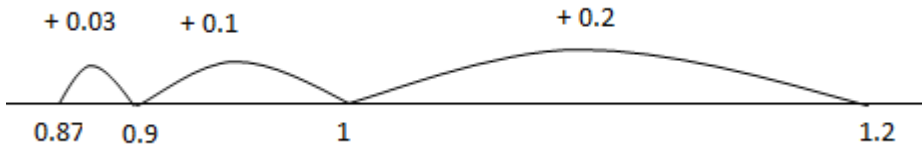
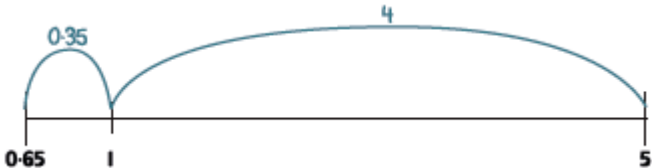
# WRITTEN ADDITION GUIDELINES

Year 5 Written Addition	Year 6 Written Addition
<p>Expanded column addition for money leading to compact column addition for adding several amounts of money. e.g. £14.64 + £28.78 + £12.26</p> $  \begin{array}{r}  \text{£}14 \quad 60\text{p} \quad 4\text{p} \\  \text{£}28 \quad 70\text{p} \quad 8\text{p} \\  + \text{£}12 \quad 20\text{p} \quad 6\text{p} \\  \hline  \text{£}1 \quad 10\text{p} \\  \text{£}55 \quad 60\text{p} \quad 8\text{p}  \end{array}  $ <p>Compact column addition to add pairs of numbers up to 5-digits. e.g. 12 350 + 4921</p> $  \begin{array}{r}  12 \, 350 \\  + 4 \, 921 \\  \hline  17 \, 271  \end{array}  $ <p>Continue to use column addition to add towers of several larger numbers. Use compact addition to add decimal numbers with up to 2 decimal places. e.g. 15.68 + 27.86</p> $  \begin{array}{r}  15.68 \\  + 27.86 \\  \hline  43.54  \end{array}  $ <p>Add related fractions: e.g. <math>\frac{3}{4} + \frac{1}{8} = \frac{7}{8}</math></p>	<p>Compact column addition for adding several large numbers and decimal numbers with up to 2 decimal places. Compact column addition with money e.g. £14.64 + £28.78 + £12.26</p> $  \begin{array}{r}  \text{£}14.64 \\  + \text{£}28.78 \\  + \text{£}12.26 \\  \hline  \text{£}55.68  \end{array}  $ <p>Add unlike fractions, including mixed numbers e.g. <math>\frac{1}{4} + \frac{2}{3} = \frac{11}{12}</math> e.g. <math>2\frac{1}{4} + 1\frac{1}{3} = 3\frac{7}{12}</math></p> <p>When working out decimal additions children may benefit from reverting back to a number line and their knowledge of <b>place value (KF)</b> to support them:</p> <p><math>35.8 + 7.3 = 35.8 + 7 + 0.3</math>  <math>= 42.8 + 0.3</math>  <math>= 43.1</math></p> 

# MENTAL SUBTRACTION GUIDELINES

Year 5 (MENTAL CALCULATION supported with jottings)	Year 5 (MENTAL CALCULATION supported with jottings)
<p><b>Taking away</b>            Use place value to subtract decimals            e.g. <math>4.58 - 0.08</math>            e.g. <math>6.26 - 0.2</math></p> <p>Take away multiples of powers of 10            e.g. <math>15\ 672 - 300</math>            e.g. <math>4.82 - 2</math>            e.g. <math>2.71 - 0.5</math>            e.g. <math>4.68 - 0.02</math></p> <p>Partitioning or counting back            e.g. <math>3964 - 1051 = 3964 - 1000</math>                  <math>= 2964 - 50</math>                  <math>= 2914 - 1</math>                  <math>= 2913</math></p> <p style="margin-left: 150px;">e.g. <math>5.72 - 2.01 = 5.72 - 2.00</math>                  <math>= 3.72 - 0.01</math>                  <math>= 3.71</math></p> <p>Subtract near multiples of 1, 10, 100, 1000, 10 000 or £1 (Adjusting Method)            e.g. <math>86\ 456 - 9999</math>            e.g. <math>3.58 - 1.99</math></p> <p><b>Counting up</b>            Find a difference between two numbers by counting up from the smaller to the larger            e.g. <math>£12.05 - £9.59</math>            e.g. <math>2009 - 869</math>  <math>1 + 30 + 100 + 1000 + 9 = 1140</math></p> 	<p>Find change using shopkeepers' addition            e.g. Buy a toy for £6.89 using £10.00  <math>1\text{p} + 10\text{p} + £3.00</math></p>  <p>Find a difference between two amounts of money by counting up</p> <p><b>Using number facts (KF)</b>            Derived facts from number bonds to 10 and 100            e.g. <math>2 - 0.45</math> using <math>45 + 55 = 100</math>            e.g. <math>3 - 0.86</math> using <math>86 + 14 = 100</math></p>  <p>Number bonds to £1, £10 and £100 (KF)            e.g. <math>£4.00 - £3.86</math>            e.g. <math>£100 - £66</math> using <math>66 + 34 = 100</math></p>

# MENTAL SUBTRACTION GUIDELINES

Year 6 (MENTAL CALCULATION supported with jottings)	Year 6 (MENTAL CALCULATION supported with jottings)
<p><b>Taking away</b>            Use place value to subtract decimals            e.g. <math>7.782 - 0.08</math>            e.g. <math>16.263 - 0.2</math></p> <p>Take away multiples of powers of 10            e.g. <math>132\,956 - 400</math>            e.g. <math>686\,109 - 40\,000</math>            e.g. <math>7.823 - 0.5</math></p> <p>Partitioning or counting back            e.g. <math>3964 - 1051 = 3964 - 1000</math>                  <math>= 2964 - 50</math>                  <math>= 2914 - 1</math>                  <math>= 2913</math></p> <p style="margin-left: 150px;">e.g. <math>5.72 - 2.01 = 5.72 - 2.00</math>                  <math>= 3.72 - 0.01</math>                  <math>= 3.71</math></p> <p>Subtract near multiples of 1, 10, 100, 1000, 10 000 or £1            e.g. <math>360\,078 - 99\,998</math>            e.g. <math>12.831 - 0.99</math></p>	<p><b>Counting up</b>            Find a difference between two decimal numbers by counting up from the smaller to the larger            e.g. <math>1.2 - 0.87</math>                  <math>0.03 + 0.1 + 0.2 = 0.33</math></p>  <p><b>Using number facts</b>            Derived facts from number bonds to 10 and 100 (KF)            e.g. <math>0.1 - 0.075</math> using <math>75 + 25 = 100</math>            e.g. <math>5 - 0.65</math> using <math>65 + 35 = 100</math></p>  <p>Number bonds to £1, £10 and £100 (KF)            e.g. <math>£7.00 - £4.37</math>            e.g. <math>£100 - £66.20</math> using <math>20p + 80p = £1</math> and <math>£67 + £33 = £100</math></p>

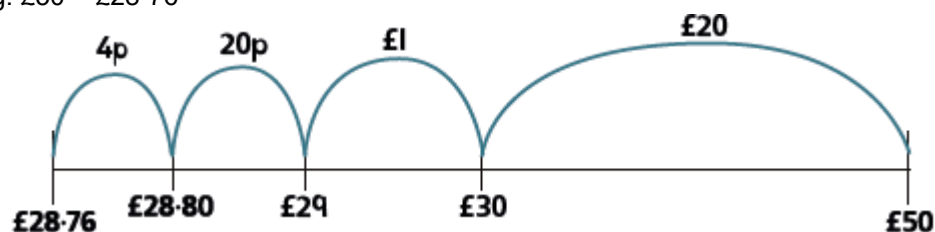
# WRITTEN SUBTRACTION GUIDELINES

## Year 5 Written Subtraction

Compact column subtraction for numbers with up to 5 digits  
e.g.  $16\,324 - 8516$

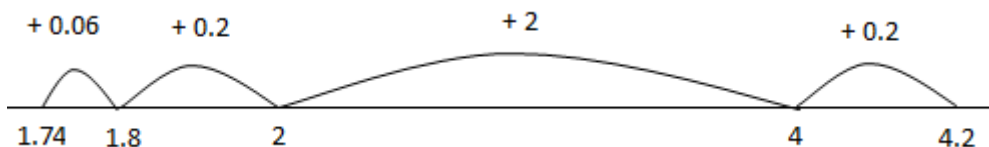
$$\begin{array}{r}
 \begin{array}{ccccc}
 0 & 15 & 13 & 1 & 14 \\
 \cancel{1} & \cancel{6} & \cancel{3} & \cancel{2} & \cancel{4} \\
 - & 8 & 5 & 1 & 6 \\
 \hline
 7 & 8 & 0 & 8 & 
 \end{array}
 \end{array}$$

Continue to use counting up subtraction for subtractions involving money, including finding change  
e.g.  $£50 - £28.76$



Use counting up subtraction to subtract decimal numbers  
e.g.  $4.2 - 1.74$

$$0.06 + 0.2 + 2 + 0.2 = 2.46$$



Subtract related fractions  
e.g.  $\frac{3}{4} - \frac{1}{8} = \frac{5}{8}$

**NB Counting up subtraction provides a default method for ALL children**

## Year 6 Written Subtraction

Compact column subtraction for large numbers  
e.g.  $34\,685 - 16\,458$

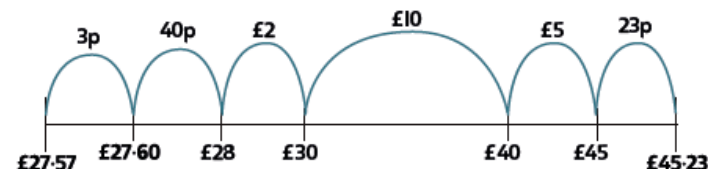
$$\begin{array}{r}
 \begin{array}{ccccc}
 2 & 14 & 7 & 15 \\
 \cancel{3} & \cancel{4} & \cancel{6} & \cancel{8} & \cancel{5} \\
 - & 1 & 6 & 4 & 5 & 8 \\
 \hline
 1 & 8 & 2 & 2 & 7 & 
 \end{array}
 \end{array}$$

Use counting up for subtractions where the larger number is a multiple or near multiple of 1000 or 10 000

Use counting up subtraction when dealing with money

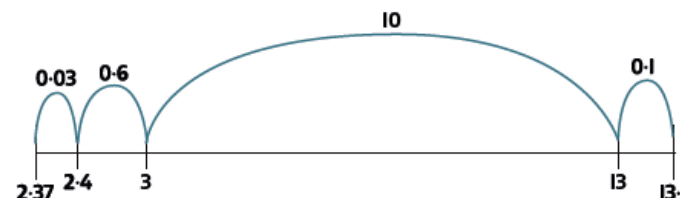
e.g.  $£100 - £78.56$

e.g.  $£45.23 - £27.57$



Use counting up subtraction to subtract decimal numbers  
e.g.  $13.1 - 2.37$

$$0.03 + 0.6 + 10 + 0.1 = 10.73$$



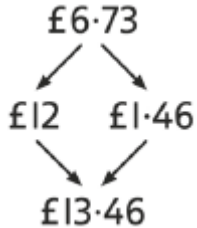
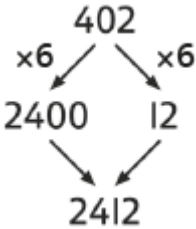
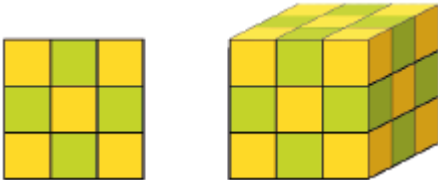
Subtract unlike fractions, including mixed numbers

$$\text{e.g. } \frac{3}{4} - \frac{1}{3} = \frac{5}{12}$$

$$\text{e.g. } 2\frac{3}{4} - 1\frac{1}{3} = 1\frac{5}{12}$$

**NB Counting up subtraction provides a default method for ALL children**

# MENTAL MULTIPLICATION GUIDELINES

Year 5 (MENTAL CALCULATION supported with jottings and practical apparatus)	Year 5 (MENTAL CALCULATION supported with jottings and practical apparatus)
<p><b>Doubling and halving</b>            Double amounts of money using partitioning            e.g. double £6.73</p>  <p>Use doubling and halving as a strategy in multiplying by 2, 4, 8, 5 and 20 <b>(KF)</b>            e.g. <math>58 \times 5</math> is half of <math>58 \times 10</math> (580) = 290</p> <p><b>Grouping</b>            Multiply whole numbers and decimals by 10, 100, 1000            e.g. <math>3.4 \times 100 = 340</math></p> <p>Use partitioning to multiply 'friendly' 2 and 3-digit numbers by 1-digit numbers            e.g. <math>402 \times 6</math> as <math>400 \times 6</math> (2400) and <math>2 \times 6</math> (12) = 2412</p>  <p>Use partitioning to multiply decimal numbers by 1-digit numbers            e.g. <math>4.5 \times 3</math> as <math>4 \times 3</math> (12) and <math>0.5 \times 3</math> (1.5) = 13.5</p> <p>Multiply near multiples by rounding            e.g. <math>32 \times 29</math> as <math>(32 \times 30) - 32 = 928</math></p>	<p><b>Using number facts</b>            Use times-tables facts up to <math>12 \times 12</math> to multiply multiples of 10 / 100 of the multiplier. <b>(KF)</b>            e.g. <math>4 \times 6 = 24</math>            Therefore <math>40 \times 6 = 240</math>            and  <math>400 \times 6 = 2400</math></p> <p>Use knowledge of factors <b>(KF)</b> and multiples <b>(KF)</b> in multiplication            e.g. <math>43 \times 6</math> is double <math>43 \times 3</math>            e.g. <math>28 \times 50</math> is half of <math>28 \times 100</math> (2800) = 1400</p> <p>Know square numbers and cube numbers <b>(KF)</b></p> 



## MENTAL MULTIPLICATION GUIDELINES

Year 6 (MENTAL CALCULATION supported with jottings and practical apparatus)	Year 6 (MENTAL CALCULATION supported with jottings and practical apparatus)
<p><b>Doubling and halving</b>            Double decimal numbers with up to 2 places using partitioning            e.g. double 36.73</p> <div data-bbox="331 448 506 679" data-label="Diagram"> <pre>       graph TD         A[36.73] --&gt; B[72]         A --&gt; C[1.46]         B --&gt; D[73.46]         C --&gt; D       </pre> </div> <p>Use doubling and halving as strategies in mental multiplication</p> <p><b>Grouping</b>            Use partitioning as a strategy in mental multiplication, as appropriate            e.g. <math>3060 \times 4</math> as <math>3000 \times 4</math> (12 000) and <math>60 \times 4</math> (240) = 12 240            e.g. <math>8.4 \times 8</math> as <math>8 \times 8</math> (64) and <math>0.4 \times 8</math> (3.2) = 67.2</p> <p>Use factors in mental multiplication            e.g. <math>421 \times 6</math> as <math>421 \times 3</math> (1263) doubled = 2526            e.g. <math>3.42 \times 5</math> as half of <math>3.42 \times 10</math> = 17.1</p> <p>Multiply decimal numbers using near multiples by rounding  <math>\times 6</math> e.g. <math>4.3 \times 19</math> as <math>(4.3 \times 20) - 4.3 = 81.7</math></p>	<p><b>Using number facts (KF)</b>            Use times-tables facts up to <math>12 \times 12</math> in mental multiplication of large numbers or numbers with up to 2 decimal places            e.g. <math>6 \times 4 = 24</math> and <math>0.06 \times 4 = 0.24</math></p>

# WRITTEN MULTIPLICATION GUIDELINES

## Year 5 Written Multiplication

Short multiplication of 2-, 3- and 4-digit numbers by 1-digit numbers  
e.g.  $435 \times 8$

$$\begin{array}{r} 435 \\ \times 8 \\ \hline 24 \\ \hline 3480 \end{array}$$

Long multiplication of 2-, 3- and 4-digit numbers by 'teen' numbers  
e.g.  $48 \times 16$

$$\begin{array}{r} 48 \\ \times 16 \\ \hline 480 \\ 288 \\ \hline 768 \end{array}$$

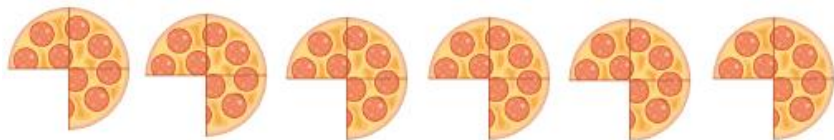
Grid multiplication of numbers with up to 2 decimal places by 1-digit numbers  
e.g.  $1.34 \times 6$

$\times$	1	0.3	0.04
6	6	1.8	0.24

 $= 8.04$

Multiply fractions by 1-digit numbers

e.g.  $\frac{3}{4} \times 6 = \frac{18}{4} = 4 \frac{2}{4} = 4 \frac{1}{2}$



**NB Grid multiplication provides a default method for ALL children**

## Year 6 Written Multiplication

Short multiplication of 2-, 3- and 4-digit numbers by 1-digit numbers  
e.g.  $3743 \times 6$

$$\begin{array}{r} 3743 \\ \times 6 \\ \hline 4218 \\ \hline 22458 \end{array}$$

Long multiplication of 2-, 3- and 4-digit numbers by 2-digit numbers  
e.g.  $456 \times 38$

$$\begin{array}{r} 456 \\ \times 38 \\ \hline 13680 \\ 3648 \\ \hline 17328 \end{array}$$

Short multiplication of decimal numbers using  $\times 100$  and  $\div 100$   
e.g.  $13.72 \times 6$  as  $(1372 \times 6) \div 100 = 82.32$

Short multiplication of money  
e.g.  $\text{£}13.72 \times 6$

$$\begin{array}{r} \text{£ } 13.72 \\ \times 6 \\ \hline 2412 \\ \hline \text{£ } 82.32 \end{array}$$

Grid multiplication of numbers with up to 2 decimal places by 1-digit numbers  
e.g.  $6.76 \times 4$

$\times$	6	0.7	0.06
4	24	2.8	0.24

 $= 27.04$

Multiply simple pairs of proper fractions

e.g.  $\frac{1}{2} \times \frac{1}{4} = \frac{1}{8}$

**NB Grid multiplication provides a default method for ALL children**

# MENTAL DIVISION GUIDELINES

Year 5 (MENTAL CALCULATION supported with jottings and practical apparatus)	Year 5 (MENTAL CALCULATION supported with jottings and practical apparatus)
<p><b>Doubling and halving</b>            Halve amounts of money using partitioning.            e.g. half of £14.84 is half of £14 (£7) plus half of 84p (42p)</p> <div data-bbox="510 448 696 671" data-label="Diagram"> </div> <p>Use doubling and halving as a strategy in dividing by 2, 4, 8, 5 and 20            e.g. <math>115 \div 5</math> as double <math>115</math> (<math>230</math>) <math>\div 10 = 23</math></p> <p><b>Grouping</b>            Divide numbers by 10, 100, 1000 to obtain decimal answers with up to 3 decimal places. <b>(KF)</b>            e.g. <math>340 \div 100 = 3.4</math></p> <p>Use the 10<sup>th</sup>, 20<sup>th</sup>, 30<sup>th</sup> ... multiple of the divisor to divide 'friendly' 2 and 3-digit numbers by 1-digit numbers.            e.g. <math>186 \div 6</math> as <math>30 \times 6</math> (180) and <math>1 \times 6</math> (6)</p> <div data-bbox="349 1121 853 1465" data-label="Equation-Block"> <math display="block">186 \div 6 = \square</math> <math display="block">\square \times 6 = 186</math> <math display="block">30 \times 6 = 180</math> <hr/> <math display="block">1 \times 6 = 6</math> <hr/> <math display="block">31</math> </div>	<p><b>Using number facts</b>            Use division facts from the times-tables up to <math>12 \times 12</math> to divide multiples of powers of 10 of the divisor <b>(KF)</b>            e.g. <math>3600 \div 9</math> using <math>36 \div 9</math></p> <p>Know square numbers and cube numbers <b>(KF)</b></p> <div data-bbox="1361 595 1917 823" data-label="Image"> </div>

# MENTAL DIVISION GUIDELINES

Year 6 (MENTAL CALCULATION supported with jottings and practical apparatus)	Year 6 (MENTAL CALCULATION supported with jottings and practical apparatus)
<p><b>Doubling and halving</b>            Halve decimal numbers with up to 2 places using partitioning.            e.g. half of 36.86 is half of 36 (18) plus half of 0.86 (0.43)</p> <div style="text-align: center;"> </div> <p>Use doubling and halving as strategies in mental division.</p> <p><b>Grouping</b>            Use the 10th, 20th, 30th ... or 100th, 200th, 300th ... multiples of the divisor to divide large numbers.            e.g. <math>378 \div 9</math> as <math>40 \times 9</math> (360) and <math>2 \times 9</math> (18)</p> <div style="display: flex; align-items: center;"> <div style="margin-right: 20px;"> <math>378 \div 9 = \square</math>   <math>\square \times 9 = 378</math>  <math>40 \times 9 = 360</math>  <hr style="width: 100px; margin: 0;"/> <div style="text-align: right; margin-right: 10px;">18</div> <math>2 \times 9 = 18</math>  <hr style="width: 100px; margin: 0;"/> <div style="text-align: right;">42</div> </div> <div> <math>378 \div 9 = 42</math> </div> </div> <p>Use tests for divisibility (KF)            e.g. 135 divides by 3, as <math>1 + 3 + 5 = 9</math> and 9 is in the <math>\times 3</math> table</p>	<p><b>Using number facts</b>            Use division facts from the times-tables up to <math>12 \times 12</math> to divide decimal numbers by 1-digit numbers            e.g. <math>1.17 \div 3</math> is <math>\frac{1}{100}</math> of <math>117 \div 3</math> (39)</p> <p>Know tests of divisibility for numbers divisible by 2, 3, 4, 5, 9, 10 and 25 (KF)</p>

# WRITTEN DIVISION GUIDELINES

## Year 5 Written Division

Use a written version of a mental strategy to divide 3-digit numbers by 1-digit numbers.

e.g.  $326 \div 6$  as  $50 \times 6$  (300) and  $4 \times 6$  (24), remainder 2

$$\begin{array}{r}
 326 \div 6 = \square \\
 \square \times 6 = 326 \\
 50 \times 6 = 300 \\
 \hline
 26 \\
 4 \times 6 = 24 \\
 \hline
 2 \\
 54
 \end{array}$$

Diagram showing the relationship between the division and multiplication steps. Arrows indicate that the 54 from the multiplication is the quotient, and the 2 is the remainder.

Short division of 3- and 4-digit numbers by 1-digit numbers.

e.g.  $139 \div 3$

$$\begin{array}{r}
 46 \text{ r } 1 \\
 3 \overline{) 139}
 \end{array}$$

Use chunking

$$326 \div 6$$

$$\begin{array}{r}
 326 \\
 - 300 \text{ (50 x 6)} \\
 \hline
 26 \\
 - 24 \text{ (4 x 6)} \\
 \hline
 0
 \end{array}$$

Answer:  
 $50 + 4 = 54$

Key Facts
$6 \times 1 = 6$
$6 \times 2 = 12$
$6 \times 5 = 30$
$6 \times 10 = 60$

## Year 6 Written Division

Give remainders as whole numbers or as fractions.

Find unit and non-unit fractions of large amounts.

e.g.  $\frac{3}{5}$  of 265 is  $3 \times (265 \div 5) = 159$

Turn improper fractions into mixed numbers and vice versa

Short division of 3- and 4-digit numbers by 1-digit numbers.

e.g.  $139 \div 3$

$$\begin{array}{r}
 46 \text{ r } 1 \\
 3 \overline{) 139}
 \end{array}$$

Long division of 3- and 4-digit numbers by 2-digit numbers.

e.g.  $4176 \div 13$

$$\begin{array}{r}
 300 + 20 + 1, \text{ r } 3 \\
 13 \overline{) 4176} \\
 \underline{-3900} \\
 276 \\
 \underline{-260} \\
 16 \\
 \underline{-13} \\
 3
 \end{array}
 \qquad
 4176 \div 13 = 321 \text{ r } 3$$

Give remainders as whole numbers, fractions or decimals.

Use place value to divide 1- and 2-place decimals by numbers  $\leq 12$ .

e.g.  $3.65 \div 5$  as  $(365 \div 5) \div 100 = 0.73$

Divide proper fractions by whole numbers.

