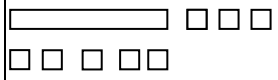
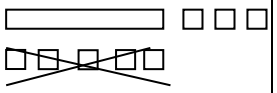
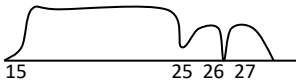
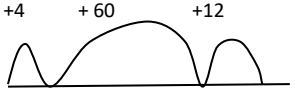
High Hesket CE Primary School
Written maths calculations overview

	Foundation	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Addition + *Put together* *Add* *Altogether* *More than* *Total* *Sum* *Increase* *Plus* *And*	Combining and counting different objects. ☺☺ ☺☺ ☺ ☺☺ 3+4 = 7	Using Base 10 to add TU and U.  13 + 5 = 18	Using base 10 to combine tens and units, including exchanging. 56 … + 23 … 79 … Expanded column addition (i.e. partitioning numbers to add) 60 → 7 20 → 4 80 →11 = 91	Expanded column addition. 100→10→7 100→40→6 200→50→13 24 +17 11 30 41 Using Base 10 to support compact column addition. 58 …….. + 38 94 …. 1	Compact column addition. 5347 +2286 +1495 9128 1 21	Compact column addition to include decimals and multiple numbers. 12.36 21.72 +23.68 4.634 36.04 140.001 1 1	
Subtra-ction - *Take away* *Subtract* *Minus* *Difference between* *Distance between* *Less than* *Reduce* *Fewer* *Decrease*	Using real life objects to take away and count how many left. ~~☺☺~~☺☺☺☺☺ 7-2 = 5	Using Base 10 or number lines to count how many left  18 – 5 = 13	Using Base 10 to subtract with some exchanging. Number lines 27-12 = 15  15 25 26 27	Using Base 10 to support expanded vertical method. 80→9 - 50→7 30→2 = 32 Number lines. 112 – 36  +4 +60 +12 36 40 100 112	Using Base 10 to support expanded vertical method including exchanging. Compact column subtraction. 7 1 2 ~~8~~ 3 - 5 7 2 2 6	Compact method of decomposition. 4 15 1 5 ~~6~~ . ~~2~~ 9 - 3 7 . 5 5 1 8 . 7 4 7 14 1 ~~8 5~~ 0 . 1 4 6 -3 7 2 . 0 3 3 4 7 8 . 1 1 3	

High Hesket CE Primary School
Written maths calculations overview

<table>
<tr>
<td>Multiplication
x

Double
Groups of
Lots of
Multiply
Product
Multiple
Times
Square</td>
<td>Making and drawing groups of real life objects.

☺☺ ☺☺
☺ ☺</td>
<td>Making and drawing groups of real life objects with matching number sentences.

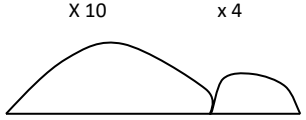
☺☺ ☺☺ ☺☺
☺ ☺ ☺

3 x 3 = 9</td>
<td>Using repeated addition.
☺☺☺ ☺☺☺ ☺☺☺
3 + 3 + 3 = 9

Making and describing arrays.
☺☺☺☺☺
☺☺☺☺☺
☺☺☺☺☺
3 x 5 = 15
5 x 3 = 15
5+5+5= 15
3+3+3+3+3 = 15

Number lines
4 x 7 = 28

0 4 8 12 16 20 24 28</td>
<td>Using arrays to support grid multiplication.

<table><tr><td>X</td><td>10</td><td>4</td></tr><tr><td>6</td><td>60</td><td>24</td></tr></table>
Number lines
 
</td>
<td>Grid multiplication.
<table><tr><td>X</td><td>100</td><td>50</td><td>2</td></tr><tr><td>3</td><td>300</td><td>150</td><td>6</td></tr></table>
Expanded vertical method.

152
X 3
6
150
300
456

Compact method (xU)</td>
<td>Extended grid method.
<table><tr><td>x</td><td>20</td><td>7</td></tr><tr><td>40</td><td>800</td><td>280</td></tr><tr><td>6</td><td>120</td><td>42</td></tr></table>
Compact vertical method (xU and x TU)

234
x 15
1170
2340
3510</td>
</tr>
<tr>
<td>Division
÷

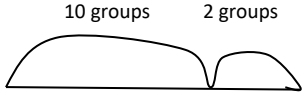
Halve
Divide
Share
Groups of
Lots of
Factor</td>
<td>Sharing out real objects in to groups.

☺☺ ☺☺
☺☺ ☺☺</td>
<td>Sharing out real objects in to groups including the concept of remainders as ones ‘left over’.

9 ÷ 2 =
☺☺ ☺☺ ☺☺ ☺☺
☺</td>
<td>Repeated subtraction including remainders.
☺☺☺ ☺☺☺ ☺☺☺
9÷3 = 3

Using number lines to count in groups.
28 ÷ 4 = 7

0 4 8 12 16 20 24 28</td>
<td>Making links to times tables facts.

Using number lines to count in larger groups.
 
</td>
<td>Chunking method.
4 ⟌ 48
- 40 (10 x)
8 (2x)
- 8
0</td>
<td>Chunking with larger numbers.

15 ⟌ 432
-300 (x 20)
132
- 120 (x8)
12

Compact division method to be used when appropriate.
0 8 8 r4
9 ⟌ 7⁷9⁷6</td>
</tr>
</table>

N.B. Please note that children should be moved on to the next stage in the calculations whenever ready. Children who are secure in a particular calculation method should be taught the next stage regardless of year group. Similarly, children who are struggling at a particular stage may need to revisit the stage before to help secure the earlier method first. The methods above are not exhaustive and other methods may be used if and when appropriate.