|  |  |  |
| --- | --- | --- |
|  | Addition To be taught alongside each other Subtraction | Multiplication To be taught alongside each other Division |
| Y6 Y7 | *Children should:** *add several numbers with different numbers of digits;*
* *begin to add two or more decimal fractions with up to four digits and either one or two decimal places;*
* *know that decimal points should line up under each other, particularly when adding or subtracting mixed amounts, e.g. 401.2 + 26.85 + 0.71.*

C:\Users\Sal\Videos\FlipShare Data\Videos\VID00391.jpgC:\Users\Sal\Videos\FlipShare Data\Videos\VID00365.jpg C:\Users\Sal\Videos\FlipShare Data\Videos\VID00369.jpg C:\Users\Sal\Videos\FlipShare Data\Videos\VID00367.jpgEncourage self checking by writing the **inverse** calculation **below** the sum to check **immediately**.C:\Users\Sal\Videos\FlipShare Data\Videos\VID00391.jpg C:\Users\Sal\Videos\FlipShare Data\Videos\VID00367.jpg 7 16

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| --- |
|  8 10 12 14 9 1 3 4- 1 4 8 6 7 6 4 8 |

 686.56 - 637.06 049.50  | *Children should:** *be able to subtract numbers with different numbers of digits;*
* *be able to subtract two or more decimal fractions with up to three digits and either one or two decimal places;*
* *know that decimal points should line up under each other.*

**Number lines** ‘Find the difference by counting up’ Where the numbers are involved in the calculation are close together or near to multiples of 10, 100 etc counting on using a number line should be used. E.g. 3002 – 1997 = 1005 **Partitioning leading to decomposition (See Y5) Only when fully secure in using number lines.** C:\Users\Sal\Videos\FlipShare Data\Videos\VID00401.jpg C:\Users\Sal\Videos\FlipShare Data\Videos\VID00402.jpg **Decomposition (only when secure in using expanded form)**5 1316 5000 1300 160  6467 6000 400 60 7-2684 - 2000 600 80 4 3783 3000 700 80 337832684 + 1 1 6467 Self check using **inverse.** **Negative Column Subtraction** (optional) | Short multiplication (by a single digit) – Grid method, Expanded and contracted method (3 and 4 digit x 1 and 2 digit numbers)**4346 x 8** Children will approximate first. **372 x 24 is approximately 400 x 25 = 10000***Using similar methods, they will be able to multiply decimals with up to two decimal places by a single digit number and then two digit numbers, approximating first. They should know that the decimal points line up under each other.***4.92 x 3 is approximately 5 x 3 = 15**

|  |
| --- |
| **12**  |
|  **2.7** |
| **+0.06** |
| **14.76** |

**Both Expanded and Contracted methods to be used** only **when children are confident with the Grid method.**More able children who are confident in all methods encouraged to use alternative methods such as the Lattice method. **(ECC)**BODMAS- (brackets over division, multiplication, addition, subtraction) | Children will continue to use written methods to solve short division (division by a single digit)C:\Users\Sal\Videos\FlipShare Data\Videos\VID00412.jpg C:\Users\Sal\Videos\FlipShare Data\Videos\VID00411.jpgSolve divisions with 3 and 4 digit numbers ÷ 1 and 2 digit numbers.Continue to use informal jottings on an empty number line to show chunking. E.g. 972 ÷ 36 = 27 36 x 27 = 97236 x 20 = 720 36 x 5 = 180 36 x 2 = 72 **Long division** (3 digit ÷ 2 digit)Any remainders should be shown as fractions, i.e. if the children were dividing 32 by 10, the answer should be shown as 3 2/10 which could then be written as 3 1/5 in it’s lowest terms.Extend to decimals with up to two decimal places. Children should know that decimal points line up under each other. **ECC** children to be secure with finding fractions using division methods.BODMAS- (brackets over division, multiplication, addition, subtraction) |