## Mathematics Non-Negotiables

## Year 4

Non-negotiables are the minimum expectations that all pupils must attain by the end of year.

These prompt sheets have been designed to assist teachers with planning/assessment and as an ideal support tool for parent's evenings/progress meetings etc.

The content identifies basics to ensure children make rapid progress and access learning in other areas, as well as securing success in terms of preparing children for the next stages in their learning.

Written with age appropriate expectations in mind, they:

- focus on the basics; making a difference to progress for all children
- support teachers in recognising key areas to promote progress
- are based on the average pupil in the cohort, supporting the need for differentiation.

Non-negotiables are in no way intended to cover the entirety of the curriculum - they are an on-going reminder of key objectives for the year group. They are the basics in order to embed and support meaningful learning.

## Content:

Mathematics Non-negotiables End of Year Expectations for Year 4 followed by an activity booklet containing example questions.

Did you like this resource? Don't forget to review it here.

## Mathematics Non-Negotiables

End of Year Expectations for Year 4

- Count backwards through zero to include negative numbers
- Compare and order numbers beyond 1,000
- Compare and order numbers with up to 2 decimal places
- Read Roman numerals to 100
- Find 1,000 more or less than a given number
- Count in multiples of 6, 7, 9, 25 and 1000
- Recall and use multiplication and division facts for all tables to $12 \times 12$
- Recognise place value of any 4-digit number
- Round any number to the nearest 10,100 or 1,000
- Round decimals with 1 decimal-place to nearest whole number
- Add and subtract numbers with up to 4-digits using written columnar method
- Multiply 2-digit and 3-digit numbers by 1-digit numbers
- Count up and down in hundredths
- Recognise and write equivalent fractions
- Add and subtract fractions with same denominator
- Read, write and convert time between analogue and digital 12 and 24 hour clocks


## Year 4

- Count backwards through zero to include negative numbers

| Start at five and <br> count backwards <br> to minus ten | Start at ten and <br> count backwards <br> to minus three |
| :---: | :---: |

Start at seven and count backwards to minus four

Start at three and count backwards to minus twenty

- Compare and order numbers beyond 1,000

Order the numbers from smallest to largest.

| 8,735 | 1,021 | 9,861 | 5,002 | 4,684 | 289 | 2,467 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\square$ | $\square$ | $\square$ | $\square$ | $\square$ | $\square$ | $\square$ |

- Compare and order numbers with up to 2 decimal places

Order the numbers from smallest to largest.


- Read Roman numerals to 100

Fill in the hundred square using Roman Numerals

| I |  | III |  | V |  |  | VIII |  | X |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | XII |  |  |  |  |  |  | XIX |  |
|  |  |  |  | XXV |  |  |  |  | XXX |
| XXXI |  |  |  |  |  | XXXVII |  |  |  |
| XLI |  |  | XLIV |  |  |  |  | XLIX | L |
|  |  |  |  |  |  |  |  |  | LX |
|  | LXII |  |  |  | LXVI |  |  |  |  |
|  |  | LXXIII |  |  |  | LXXVII |  |  |  |
|  |  |  |  | LXXXV |  |  |  |  | XC |
|  |  |  | XCIV |  |  |  | XCVIII |  |  |

## Year 4

- Find 1,000 more or less than a given number

Fill in the table to show 1,000 less and 1,000 more than the given number.

| 1,000 less than |  | 1,000 more than |
| :--- | :--- | :--- |
|  | 7,341 |  |
|  | 2,972 |  |
|  | 7,559 |  |
|  | 1,383 |  |

- Count in multiples of $6,7,9,25$ and 1000

| Start at six <br> and count in <br> sixes | start at seven <br> and count in <br> sevens | start at nine <br> and count in <br> nines | start at <br> twenty-five <br> and count in <br> twenty-fives | start at zero <br> and count in <br> thousands |
| :---: | :---: | :---: | :---: | :---: |

- Recall and use multiplication and division facts for all tables to $12 \times 12$



## Year 4


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## Year 4



- Recognise place value of any 4 -digit number


## Write the digits to form the number

two thousands, five hundreds, two tens and four ones $\square$
eight thousands, seven hundreds, no tens and five ones $\square$
four thousands, two hundreds, three tens and no ones $\square$ nine thousands, three hundreds, three tens and three ones $\square$ seven thousands, eight hundreds, six tens and one one
 Write the place value words that form the given number

## words

digits
$\square$
$\square$ 1,204
$\square$ 8,631
$\square$ 6,888
$\square$2,030

- Round any number to the nearest 10,100 or 1,000

Complete the table:

|  | nearest 10 | nearest 100 | nearest 1,000 |
| :---: | :---: | :---: | :---: |
| 9,864 |  |  |  |
| 5,237 |  |  |  |
| 4,565 |  |  |  |
| 1,002 |  |  |  |

- Round decimals with 1 decimal-place to nearest whole number

Round the numbers to the nearest whole number


- Add and subtract numbers with up to 4-digits using written columnar method
Complete the column method addition questions

|  | 5 | 3 | 4 | 1 |
| :--- | :--- | :--- | :--- | :--- |
| + | 2 | 4 | 5 | 3 |
|  |  |  |  |  |


|  | 7 | 7 | 6 | 2 |
| :--- | :--- | :--- | :--- | :--- |
| + | 1 | 0 | 0 | 4 |
|  |  |  |  |  |


|  | 1 | 6 | 5 | 2 |
| :--- | :--- | :--- | :--- | :--- |
| + | 6 | 2 | 0 | 9 |
|  |  |  |  |  |


|  | 8 | 7 | 7 | 5 |
| :--- | :--- | :--- | :--- | :--- |
| + | 1 | 3 | 3 | 4 |
|  |  |  |  |  |


|  | 2 | 9 | 0 | 2 |
| :--- | :--- | :--- | :--- | :--- |
| + | 2 | 2 | 0 | 9 |
|  |  |  |  |  |


|  | 6 | 0 | 4 | 3 |
| :--- | :--- | :--- | :--- | :--- |
| + | 3 | 1 | 2 | 7 |
|  |  |  |  |  |

Complete the column method subtraction questions

|  | 9 | 5 | 6 | 7 |
| :---: | :---: | :---: | :---: | :---: |
| - | 4 | 2 | 3 | 4 |
|  |  |  |  |  |


|  | 8 | 6 | 5 | 5 |
| :---: | :---: | :---: | :---: | :---: |
| - | 4 | 4 | 2 | 1 |
|  |  |  |  |  |


|  | 1 | 8 | 6 | 7 |
| :---: | :---: | :---: | :---: | :---: |
| - | 1 | 5 | 4 | 1 |
|  |  |  |  |  |

## Year 4

Complete the column method subtraction questions

|  | 7 | 3 | 2 | 4 |
| :--- | :--- | :--- | :--- | :--- |
| - | 3 | 1 | 1 | 5 |
|  |  |  |  |  |


|  | 8 | 1 | 5 | 6 |
| :---: | :---: | :---: | :---: | :---: |
| - | 7 | 8 | 1 | 3 |
|  |  |  |  |  |


|  | 5 | 0 | 0 | 4 |
| :--- | :--- | :--- | :--- | :--- |
| - | 1 | 5 | 4 | 3 |
|  |  |  |  |  |

- Multiply 2-digit and 3-digit numbers by 1-digit numbers

Complete the column method multiplication questions

|  | 2 | 3 |
| :---: | :---: | :---: |
| $x$ |  | 5 |
|  |  |  |


|  | 5 | 6 |
| :---: | :---: | :---: |
| $x$ |  | 3 |
|  |  |  |


|  | 7 | 4 |
| :---: | :---: | :---: |
| $x$ |  | 2 |
|  |  |  |


|  | 3 | 8 |
| :---: | :---: | :---: |
| $x$ |  | 7 |
|  |  |  |


|  | 9 | 7 |
| :---: | :---: | :---: |
| $x$ |  | 6 |
|  |  |  |

Complete the column method multiplication questions

|  | 2 | 8 | 4 |
| :--- | :--- | :--- | :--- |
| x |  |  | 4 |
|  |  |  |  |


|  | 3 | 6 | 5 |
| :---: | :---: | :---: | :---: |
| $x$ |  |  | 9 |
|  |  |  |  |


|  | 5 | 7 | 2 |
| :--- | :--- | :--- | :--- |
| $x$ |  |  | 5 |
|  |  |  |  |


|  | 7 | 4 | 3 |
| :---: | :---: | :---: | :---: |
| $x$ |  |  | 8 |
|  |  |  |  |


|  | 9 | 5 | 9 |
| :---: | :---: | :---: | :---: |
| $x$ |  |  | 3 |
|  |  |  |  |

- Count up and down in hundredths




## Year 4

- Recognise and write equivalent fractions Write the equivalent fractions below each shape

- Add and subtract fractions with same denominator
$\frac{12}{33}+\frac{27}{33}=$
$\frac{17}{12}-\frac{9}{12}=$
$\frac{52}{75}+\frac{37}{75}=$
$\frac{74}{64}-\frac{37}{64}=$
$\frac{6}{24}+\frac{14}{24}$
$\frac{17}{18}-\frac{13}{18}=$
$\frac{36}{99}+\frac{36}{99}=$
$\frac{31}{52}-\frac{26}{52}=$
$\frac{41}{87}+\frac{42}{87}=$
- Read, write and convert time between analogue and digital 12 and 24 hour clocks


| in the afternoon |  |
| :---: | :---: |
| 12 hour | $:$ |
| 24 hour | $:$ |


| in the morning |  |
| :---: | :---: |
| 12 hour | $:$ |
| 24 hour | $:$ |


| in the morning |  |
| :---: | :---: |
| 12 hour | $:$ |
| 24 hour | $:$ |


| in the afternoon |  |
| :---: | :---: |
| 12 hour | $:$ |
| 24 hour | $:$ |

## Year 4

- Count backwards through zero to include negative numbers

| Start at five and <br> count backwards <br> to minus ten | Start at ten and <br> count backwards <br> to minus three | Start at seven and <br> count backwards <br> to minus four | Start at three and <br> count backwards <br> to minus twenty |
| :---: | :---: | :---: | :---: |

- Compare and order numbers beyond 1,000

Order the numbers from smallest to largest.

| 8,735 | 1,021 | १,861 | 5,002 | 4,684 | 289 | 2,467 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 289 | 1,021 | 2,467 | 4,684 | 5,002 | 8,735 | 9,861 |

- Compare and order numbers with up to 2 decimal places Order the numbers from smallest to largest.

| 6.25 | 3.97 | 3.05 | 6.29 | 9.86 | 2.77 | 3.64 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 2.77 | 3.05 | 3.64 | 3.97 | 6.25 | 6.29 | 9.86 |

- Read Roman numerals to 100

Fill in the hundred square using Roman Numerals

| I | II | III | IV | V | VI | VII | VIII | IX | X |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| XI | XII | XIII | XIV | XV | XVI | XVII | XVIII | XIX | XX |
| XXI | XXII | XXIII | XXIV | XXV | XXVI | XXVII | XXVIII | XXIX | XXX |
| XXXI | XXXII | XXXIII | XXXIV | XXXV | XXXVI | XXXVIII | XXXVIII | XXXIX | XL |
| XLI | XLII | XLIII | XLIV | XLV | XLVI | XLVII | XLVIII | XLIX | L |
| LI | LII | LIII | LIV | LV | LVI | LVII | LVIII | LIX | LX |
| LXI | LXII | LXIII | LXIV | LXV | LXVI | LXVII | LXVIII | LXIX | LXX |
| LXXI | LXXIII | LXXIII | LXXIV | LXXV | LXXVI | LXXVII | LXXVIIII | LXXIX | LXXX |
| LXXXI | LXXXII | LXXXIIII | LXXXIV | LXXXV | LXXXVI | LXXXVII | LXXXVIII | LXXXIX | XC |
| XCI | XCII | XCIII | XCIV | XCV | XCVI | XCVII | XCVIII | XCIX | C |

## Year 4

- Find 1,000 more or less than a given number

Fill in the table to show 1,000 less and 1,000 more than the given number.

| 1,000 less than |  | 1,000 more than |
| :---: | :---: | :---: |
| 6,341 | 7,341 | 8,341 |
| 1,972 | 2,972 | 3,972 |
| 6,559 | 7,559 | 8,559 |
| 383 | 1,383 | 2,383 |

- Count in multiples of 6, 7, 9, 25 and 1000

| Start at six <br> and count in <br> sixes | start at seven <br> and count in <br> sevens | start at nine <br> and count in <br> nines | start at <br> twenty-five <br> and count in <br> twenty-fives | start at zero <br> and count in <br> thousands |
| :---: | :---: | :---: | :---: | :---: |

- Recall and use multiplication and division facts for all tables to $12 \times 12$



## Year 4



## Year 4



- Recognise place value of any 4 -digit number


## Write the digits to form the number

two thousands, five hundreds, two tens and four ones
eight thousands, seven hundreds, no tens and five ones

| 2,524 <br> 8,705 <br> 4,230 <br> 9,333 <br> 7,861 |
| :--- | Write the place value words that form the given number

words
digits
 nine thousands, three hundreds, three tens and three ones seven thousands, eight hundreds, six tens and one one

- Round any number to the nearest 10,100 or 1,000

Complete the table:

|  | nearest 10 | nearest 100 | nearest 1,000 |
| :---: | :---: | :---: | :---: |
| 9,864 | 9,860 | 9,900 | 10,000 |
| 5,237 | 5,240 | 5,200 | 5,000 |
| 4,565 | 4,570 | 4,600 | 5,000 |
| 1,002 | 1,000 | 1,000 | 1,000 |

- Round decimals with 1 decimal-place to nearest whole number

Round the numbers to the nearest whole number

| 1.6 | 9.4 | 25.1 | 93.7 | 0.9 | 7.5 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 2 | 9 | 25 | 94 | 8.4 | 3 |

- Add and subtract numbers with up to 4-digits using written columnar method
Complete the column method addition questions

|  | 5 | 3 | 4 | 1 |
| :---: | :---: | :---: | :---: | :---: |
| + | 2 | 4 | 5 | 3 |
| 7 | 7 | 9 | 4 |  |


|  | 7 | 7 | 6 | 2 |
| :--- | :--- | :--- | :--- | :--- |
| + | 1 | 0 | 0 | 4 |
|  | 8 | 7 | 6 | 6 |


|  | 1 | 6 | 5 | 2 |
| :--- | :--- | :--- | :--- | :--- |
| + | 6 | 2 | $0_{1}$ | 9 |
| 7 | 8 | 6 | 1 |  |


|  | 8 | 7 | 7 | 5 |
| :--- | :--- | :--- | :--- | :--- |
| + | $1_{1}$ | $3_{1}$ | 3 | 4 |
| 1 | 0 | 1 | 0 | 9 |


|  | $\mathbf{2}$ | $\mathbf{9}$ | $\mathbf{0}$ | $\mathbf{2}$ |
| :--- | :--- | :--- | :--- | :--- |
| $\mathbf{+}$ | $\mathbf{2}_{1}$ | $\mathbf{2}$ | $\mathbf{0}_{1}$ | $\mathbf{9}$ |
|  | 5 | 1 | 1 | 1 |


|  | 6 | 0 | 4 | 3 |
| :--- | :--- | :--- | :--- | :--- |
| + | 3 | 1 | 2 | 7 |
|  | 9 | 1 | 7 | 0 |

Complete the column method subtraction questions

|  | 9 | 5 | 6 | 7 |
| :---: | :---: | :---: | :---: | :---: |
| - | 4 | 2 | 3 | 4 |
|  | 5 | 3 | 3 | 3 |


|  | 8 | 6 | 5 | 5 |
| :---: | :---: | :---: | :---: | :---: |
| - | 4 | 4 | 2 | 1 |
|  | 4 | 2 | 3 | 4 |


|  | 1 | 8 | 6 | 7 |
| :---: | :---: | :---: | :---: | :---: |
| - | 1 | 5 | 4 | 1 |
|  | 0 | 3 | 2 | 6 |

## Year 4

Complete the column method subtraction questions

|  | 7 | 3 | ${ }^{1}$ | 2 |
| :--- | :--- | :--- | :--- | :--- |
| 14 |  |  |  |  |
| - | 3 | 1 | 1 | 5 |
|  | 4 | 2 | 0 | 9 |


|  | 7 | 8 | 1 | 5 |
| :---: | :---: | :---: | :---: | :---: |
| - | 7 | 8 | 1 | 3 |
|  | 0 | 3 | 4 | 3 |


|  | ${ }^{4} \boldsymbol{5}$ | ${ }^{9} 0$ | ${ }^{1} 0$ | 4 |
| :---: | :---: | :---: | :---: | :---: |
| - | 1 | 5 | 4 | 3 |
|  | 3 | 4 | 6 | 1 |

- Multiply 2-digit and 3-digit numbers by 1-digit numbers

Complete the column method multiplication questions

|  | 2 | 3 |
| :---: | :---: | :---: |
| $x$ |  | 5 |
| 1 | 1 | 5 |


|  | 5 | 6 |
| :---: | :---: | :---: |
| $x$ |  | 3 |
| 1 | 6 | 8 |


|  | 7 | 4 |
| :---: | :---: | :---: |
| $x$ |  | 2 |
| 1 | 4 | 8 |


|  | 3 | 8 |
| :---: | :---: | :---: |
| $x$ |  | 7 |
| 2 | 6 | 6 |


|  | 9 | 7 |
| :---: | :---: | :---: |
| $x$ |  | 6 |
| 5 | 8 | 2 |

Complete the column method multiplication questions

|  | 2 | 8 | 4 |
| :---: | :---: | :---: | :---: |
| $x$ |  |  | 4 |
| 1 | 1 | 3 | 6 |


|  | 3 | 6 | 5 |
| :---: | :---: | :---: | :---: |
| $x$ |  | 5 | 9 |
| 3 | 2 | 8 | 5 |


|  | 5 | 7 | 2 |
| :---: | :---: | :---: | :---: |
| $x$ |  | 3 | 5 |
| 2 | 8 | 6 | 0 |


|  | 7 | 4 | 3 |
| :---: | :---: | :---: | :---: |
| $x$ |  | 3 | 8 |
| 5 | 9 | 4 | 4 |


|  | 9 | 5 | 9 |
| :---: | :---: | :---: | :---: |
| $x$ |  |  | 2 |
| 2 | 8 | 7 | 7 |

- Count up and down in hundredths

|  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 3.0 | 3.01 | 3.02 | 3.03 | 3.04 | 3.05 | 3.06 | 3.07 | 3.08 | 3.09 | 3.10 |

6.60

6.62
6.63
$6.64 \quad 6.65$
6.66

|  |  |
| :---: | :---: |
| 6.67 | 6.68 |


| 1 |
| :--- |
| 6.69 |
|  |



## Year 4

- Recognise and write equivalent fractions Write the equivalent fractions below each shape

$\frac{2}{4}$

$\frac{3}{4}$

- Add and subtract fractions with same denominator

- Read, write and convert time between analogue and digital 12 and 24 hour clocks


| in the morning |  |
| :---: | :---: |
| 12 hour | $10: 30 \mathrm{am}$ |
| 24 hour | $10: 30$ |


| in the morning |  |
| :---: | :---: |
| 12 hour | $9: 20 \mathrm{am}$ |
| 24 hour | $09: 20$ |


| in the afternoon |  |
| :--- | :---: |
| 12 hour | $5: 38 \mathrm{pm}$ |
| 24 hour | $17: 38$ |

