## Mathematics Non-Negotiables

## Year 3

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 3 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 3

- Compare \& order numbers up to 1000
- Read \& write all numbers to 1000 in digits and words
- Find 10 or 100 more/less than a given number
- Count from 0 in multiples of $4,8,50$ and 100
- Recall \& use multiplication \& division facts for 3, 4, 8 tables
- Recognise place value of any 3-digit number
- Add and subtract: 3-digit numbers and ones

3-digit numbers and tens
3-digit numbers and hundreds

- Add and subtract: Numbers with up to 3-digits using written columnar method
- Estimate and use inverse to check
- Multiply: 2-digit by 1 -digit
- Count up/down in tenths
- Compare and order fractions with same denominator
- Add and subtract fractions with same denominator within one whole
- Tell time using 12 and 24 hour clocks; and using Roman numerals
- Tell time to nearest minute
- Know number of days in each month and number of seconds in a minute


## Year 3

- Compare \& order numbers up to 1000

Order the numbers from smallest to largest.

| 237 | 12 | 999 | 110 | 300 | 482 | 862 | 450 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\square$ | $\square$ | $\square$ | $\square$ | $\square$ | $\square$ | $\square$ | $\square$ |

- Read \& write all numbers to 1000 in digits and words

Fill in the table with the missing digits or words

| words | digits |
| :---: | :---: |
| three hundred and two |  |
|  | 841 |
| one thousand | 388 |$\quad$|  | weven hundred and <br> thirty-five | digits |
| :---: | :---: | :---: |
| two hundred and four | 109 |  |
| five hundred and <br> twenty-seven |  | 815 |

- Find 10 or 100 more/less than a given number

Fill in the table to show 10 less and 10 more than the given number.

| 10 less than |  | 10 more than |  |
| :--- | :--- | :--- | :---: |
|  | 651 |  |  |
|  | 312 |  |  |
|  | 865 |  |  |
|  | 701 |  |  |

Fill in the table to show 100 less and 100 more than the given number.

| 100 less than |  | 100 more than |
| :--- | :---: | :---: |
|  | 900 |  |
|  | 164 |  |
|  | 599 |  |
|  | 731 |  |

## Year 3

- Count from 0 in multiples of 4, 8, 50 and 100

| start at zero and <br> count in fours | start at zero and <br> count in eights | start at zero and <br> count in fifties | start at zero and <br> count in hundreds |
| :---: | :---: | :---: | :---: |

- Recall \& use multiplication \& division facts for 3, 4, 8 tables

- Recognise place value of any 3-digit number

Write the digits to form the number

## words

digits
five hundreds, three tens and nine ones $\square$
eight hundreds, one ten and four ones $\square$
one hundred, two tens and three ones $\square$
six hundred, no tens and six ones
no hundreds, seven tens and two ones
$\square$
$\square$

## Year 3

Write the place value words that form the given number
$\square$ 961
$\square$
$\square$608
$\square$

- Add and subtract:
> 3-digit numbers and ones

| $645+4=\square$ | $568-6=\square$ | $992-8=\square$ |
| :--- | :--- | ---: |
| $109-7=\square$ | $282+8=\square-5=\square$ |  |
| $901+9=\square$ | $790-2=\square$ | $696+9=\square$ |
| $374-5=\square$ | $427-6=\square$ | $100-4=\square$ |

$>$ 3-digit numbers and tens

| $912+50=$ | 287-40 = | $100+80=$ |
| :---: | :---: | :---: |
| $333-30=$ | $761+50=$ | $824-20=$ |
| $108+60=$ | $190-90=$ | $599+90=$ |
| $999-10=$ | $480+60=$ | $899-90=$ |

## Year 3

> 3-digit numbers and hundreds

$$
\begin{array}{rlrl}
354+200 & =\square & 213-200=\square & 900+100 \\
699-400 & =\square & 463+300=\square & 804-500=\square \\
105+800=\square & 968-700=\square & 670+200=\square \\
772-500=\square & 531+400=\square & 520-500=\square
\end{array}
$$

- Add and subtract: Numbers with up to 3-digits using written columnar method
Complete the column method addition questions

|  | 1 | 4 | 3 |
| :--- | :--- | :--- | :--- |
| + | 3 | 3 | 4 |
|  |  |  |  |


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


|  | 7 | 6 | 5 |
| :--- | :--- | :--- | :--- |
| + | 1 | 2 | 2 |
|  |  |  |  |


|  | 3 | 6 | 2 |
| :--- | :--- | :--- | :--- |
| + | 3 | 2 | 6 |
|  |  |  |  |


|  | 4 | 4 | 9 |
| :--- | :--- | :--- | :--- |
| + | 3 | 3 | 2 |
|  |  |  |  |


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

Complete the column method subtraction questions

|  | 9 | 8 | 6 |
| :---: | :---: | :---: | :---: |
| - | 4 | 4 | 5 |
|  |  |  |  |


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


|  | 2 | 9 | 3 |
| :--- | :--- | :--- | :--- |
| - | 1 | 6 | 1 |
|  |  |  |  |


|  | 8 | 7 | 5 |
| :---: | :---: | :---: | :---: |
| - | 5 | 5 | 5 |
|  |  |  |  |


|  | 6 | 4 | 2 |
| :--- | :--- | :--- | :--- |
| - | 3 | 3 | 6 |
|  |  |  |  |


|  | 5 | 2 | 7 |
| :--- | :--- | :--- | :--- |
| - | 2 | 4 | 2 |
|  |  |  |  |

## Year 3

- Estimate and use inverse to check

Estimate the following answers before working them out, then use addition or subtraction to find the corresponding fact to check your answer.

$$
\text { I estimate that } 22+39=\square
$$

Addition $22+39=\square$ Subtraction $61-\square=\square$ I estimate that $71+58=\square$

Addition


Subtraction


I estimate that $48+82=$ $\square$
Addition $\square$ Subtraction $\square$

- Multiply: 2-digit by 1-digit

| $36 \times 2=\square$ | $45 \times 5=\square$ | $12 \times 3=\square$ |
| :--- | :--- | :--- |
| $74 \times 8=\square$ | $27 \times 4=\square$ | $83 \times 5=\square$ |
| $99 \times 3=\square$ | $53 \times 8=\square$ | $34 \times 2=\square$ |

- Count up/down in tenths
6.0

6.5
6.6

6.8
6.9
7.0

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## Year 3

- Compare and order fractions with same denominator

Order the fractions from smallest to largest


- Add and subtract fractions with same denominator with whole

$$
\begin{aligned}
& \frac{3}{6}+\frac{2}{6}=\square \frac{5}{5}-\frac{2}{5}=\square \\
& \frac{7}{11}+\frac{3}{11}=\square \quad \frac{2}{3}-\frac{1}{3}=\square \\
& \frac{5}{8}+\frac{2}{8}=\square \quad \frac{14}{15}-\frac{9}{15}=\square \\
& \frac{4}{10}+\frac{6}{10}=\square \quad \frac{2}{4}-\frac{1}{4}=\square
\end{aligned}
$$

What fraction do you need to make 1?

$$
\begin{array}{lll}
\frac{7}{11}+\overline{11} & =1 & \frac{13}{3}-\bar{\square} \\
\frac{7}{3}-\overline{6} & =1 & \frac{5}{15}+\frac{\square}{15}=1 \\
\frac{4}{10}+\frac{7}{10}=1 & \frac{1}{4}+\frac{\square}{4}=1 & \frac{\square}{11}-\frac{3}{11}=1
\end{array}
$$

- Tell time using 12 and 24 hour clocks; and using Roman numerals
- Tell time to nearest minute

Use the 12 hour clock to write the time beneath the clocks


Use the 24 hour clock to write the time beneath the clocks


| in the evening |
| :---: |
| $:$ |



Using words, write the time beneath the roman numeral clock

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## Year 3

- Know number of days in each month and number of seconds in a minute

How many days in each month?

$\square$

## Year 3

- Compare \& order numbers up to 1000

Order the numbers from smallest to largest.

| 237 | 12 | १११ | 110 | 300 | 482 | 862 | 450 | 96 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 12 | 96 | 110 | 237 | 300 | 482 | 450 | 862 | 999 |

- Read \& write all numbers to 1000 in digits and words

Fill in the table with the missing digits or words

| words | digits |
| :---: | :---: |
| three hundred and two | 302 |
| eight hundred <br> and forty-one | 841 |
| one thousand | 1000 |
| one hundred and nine | 109 |
| three hundred and <br> eighty-eight | 388 |
| five hundred and <br> twenty-seven | 527 |
| two hundred and four |  |
| thirty-five |  |$\quad 204$

- Find 10 or 100 more/less than a given number

Fill in the table to show 10 less and 10 more than the given number.

| 10 less than |  | 10 more than |
| :---: | :---: | :---: |
| 641 | 651 | 661 |
| 302 | 312 | 322 |
| 855 | 865 | 875 |
| 691 | 701 | 711 |

Fill in the table to show 100 less and 100 more than the given number.

| 100 less than |  | 100 more than |
| :---: | :---: | :---: |
| 800 | 900 | 1000 |
| 64 | 164 | 264 |
| 499 | 599 | 699 |
| 631 | 731 | 831 |

## Year 3

- Count from 0 in multiples of 4, 8, 50 and 100

| start at zero and <br> count in fours | start at zero and <br> count in eights | start at zero and <br> count in fifties | start at zero and <br> count in hundreds |
| :---: | :---: | :---: | :---: |

- Recall \& use multiplication \& division facts for 3, 4, 8 tables

- Recognise place value of any 3-digit number

Write the digits to form the number
words digits
five hundreds, three tens and nine ones eight hundreds, one ten and four ones
one hundred, two tens and three ones six hundred, no tens and six ones
no hundreds, seven tens and two ones
539
$\square$
123
606
72

## Year 3

Write the place value words that form the given number

| words | digits |
| :---: | :---: |
| nine hundreds, six tens and one one | 961 |
| one hundred, five tens and seven ones | 157 |
| six hundreds, no tens and eight ones | 608 |
| no hundreds, eight tens and six ones | 86 |
| four hundreds, four tens and two ones | 442 |

- Add and subtract:
> 3-digit numbers and ones

| $645+4=649$ | $568-6=562$ | $992-8=984$ |
| :--- | :--- | :--- |
| $109-7=102$ | $282+8=290$ | $201-5=9196$ |
| $901+9=910$ | $790-2=788$ | $696+9=705$ |
| $374-5=369$ | $427-6=421$ | $100-4=96$ |

$>$ 3-digit numbers and tens

| $912+50=962$ | 287-40 = 247 | $100+80=$ | 180 |
| :---: | :---: | :---: | :---: |
| $333-30=303$ | $761+50=811$ | $824-20=$ | 804 |
| $108+60=168$ | $190-90=100$ | $599+90=$ | 689 |
| $999-10=989$ | $480+60=540$ | $899-90=$ | 809 |

## Year 3

> 3-digit numbers and hundreds

$$
\begin{array}{lll}
354+200=554 & 213-200=13 & 900+100=1000 \\
699-400=299 & 463+300=763 & 804-500=304 \\
105+800=990 & 968-700=268 & 670+200=870 \\
772-500=272 & 531+400=931 & 520-500=20
\end{array}
$$

- Add and subtract: Numbers with up to 3-digits using written columnar method
Complete the column method addition questions

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


|  | 5 | 1 | 1 |
| :---: | :---: | :---: | :---: |
| + | 4 | 2 | 5 |
|  | 9 | 3 | 6 |


|  | 7 | 6 | 5 |
| ---: | :--- | :--- | :--- |
| + | 1 | 2 | 2 |
|  | 8 | 8 | 7 |


|  | 3 | 6 | 2 |
| :---: | :---: | :---: | :---: |
| + | 3 | 2 | 6 |
|  | 6 | 8 | 8 |


|  | 4 | 4 | 9 |
| :---: | :---: | :---: | :---: |
| + | 3 | $3_{1}$ | 2 |
|  | 7 | 8 | 1 |


|  | 1 | 4 | 8 |
| :--- | :--- | :--- | :--- |
| + | 3 | $3_{1}$ | 4 |
|  | 4 | 8 | 2 |

Complete the column method subtraction questions

|  | 9 | 8 | 6 |
| :---: | :---: | :---: | :---: |
| - | 4 | 4 | 5 |
|  | 5 | 4 | 1 |


|  | 7 | 4 | 1 |
| :---: | :---: | :---: | :---: |
| - | 5 | 2 | 1 |
|  | 2 | 2 | 0 |


|  | 2 | 9 | 3 |
| :---: | :---: | :---: | :---: |
| - | 1 | 6 | 1 |
|  | 1 | 3 | 2 |


|  | 8 | 7 | 5 |
| :---: | :---: | :---: | :---: |
| - | 5 | 5 | 5 |
|  | 3 | 2 | 0 |


|  | 6 | ${ }^{3} 4$ | ${ }^{1} 2$ |
| :---: | :---: | :---: | :---: |
| - | 3 | 3 | 6 |
|  | 3 | 0 | 6 |


|  | ${ }^{4}, 5$ | ${ }^{1} 2$ | 7 |
| :--- | :--- | :--- | :--- |
| - | 2 | 4 | 2 |
|  | 2 | 8 | 5 |

## Year 3

- Estimate and use inverse to check

Estimate the following answers before working them out, then use addition or subtraction to find the corresponding fact to check your answer.

$$
\text { I estimate that } 22+39=60
$$

Addition $22+39=61$ Subtraction $61-22=39$

$$
\text { I estimate that } 71+58=130
$$

Addition

$$
71+58=129 \text { Subtraction }
$$

$$
129-58=71
$$

$$
\text { I estimate that } 48+82=130
$$

Addition

$$
48+82=130 \text { Subtraction } 130-82=48
$$

- Multiply: 2-digit by 1-digit

| $36 \times 2=42$ | $45 \times 5=225$ | $12 \times 3=36$ |
| :--- | :--- | :--- |
| $74 \times 8=592$ | $27 \times 4=408$ | $83 \times 5=415$ |
| $99 \times 3=297$ | $53 \times 8=424$ | $34 \times 2=48$ |

- Count up/down in tenths
6.0
6.2
$6.3 \quad 6.4$
6.5
6.6 $\square$ 6.8
6.9
7.0



## Year 3

- Compare and order fractions with same denominator

Order the fractions from smallest to largest


- Add and subtract fractions with same denominator with whole

$$
\begin{array}{ll}
\frac{3}{6}+\frac{2}{6}=\frac{5}{6} & \frac{5}{5}-\frac{2}{5}=\frac{3}{5} \\
\frac{7}{11}+\frac{3}{11}=\frac{10}{11} & \frac{2}{3}-\frac{1}{3}=\frac{1}{3} \\
\frac{5}{8}+\frac{2}{8}=\frac{7}{8} & \frac{14}{15}-\frac{9}{15}=\frac{5}{15} \\
\frac{4}{10}+\frac{6}{10}=\frac{10}{10} & \frac{2}{4}-\frac{1}{4}=\frac{1}{4}
\end{array}
$$

What fraction do you need to make 1?

| $\frac{7}{11}+\frac{3}{11}$ | $=1$ | $\frac{13}{3}-\frac{10}{3}$ |
| :--- | :--- | :--- |
| $\frac{7}{6}-\frac{1}{6}=1$ | $\frac{5}{15}+\frac{1}{15}=1$ |  |
| $\frac{4}{10}+\frac{6}{10}=1$ | $+\frac{3}{4}=1$ | $\frac{8}{7}-\frac{14}{7}=1$ |

- Tell time using 12 and 24 hour clocks; and using Roman numerals
- Tell time to nearest minute

Use the 12 hour clock to write the time beneath the clocks


Use the 24 hour clock to write the time beneath the clocks


| in the evening |
| :---: |
| $19: 08$ |



Using words, write the time beneath the roman numeral clock

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## Year 3

- Know number of days in each month and number of seconds in a minute How many days in each month?


How many seconds in a minute?

