Number and number processes

I can use addition, subtraction, multiplication and division when solving problems, making best use of the mental strategies and written skills I have developed.

MNU 1-03a

Example

```
  5
  4
+7
```

```
  6
  7
+4
```

Correct Use of Language

Say 5 add 4 add 7.

Say 6 add 7 add 4 or 6 add 4 add 7 (using patterns).

Methodology

Always start addition at the top and work downwards as a basic teaching method, moving towards looking for patterns e.g. bonds to ten.

Always start subtraction at the top and work downwards.

```
  9
- 4
```

Say 9 subtract 4 not, 4 from 9.

Number and number processes

When a picture or symbol is used to replace a number in a number statement, I can find its value using my knowledge of number facts and explain my thinking to others.

MTH 1-15b

Example

2+☐ =7
2 ☐ 6=8
6 =3+☐
2+☐ = 6

Correct Use of Language

Start to introduce the term algebra when symbols are used for unknown numbers or operators.

Do not use the word, "box" or "square" when solving these equations.

Say:
   Two and what makes seven?
   What sign makes sense
   here/completes the   equation?

Say:
   Two plus what makes six?
   What add two makes six?
   Six take away two gives what?

Methodology

Your child should be encouraged to think of these in a variety of ways, so that they are adopting a strategy to solve the equation.

Number and number processes

I have investigated how whole numbers are constructed, can understand the importance of zero within the system and can use my knowledge to explain the link between a digit, its place and its value.

MNU 1 –

02a

Term/Definition

Reads, writes, orders and recites whole numbers up to1000, starting from any number in the sequence.

Demonstrates understanding of zero as a placeholder in whole numbers to1000.

Uses correct mathematical vocabulary when discussing the four operations including, subtract, add, sum of, total, multiply, product, divide and shared equally.

Correct Use of Language

Say, "one hundred", rather than, "a hundred."

Distinguish between digits and numbers.

Money

I can use money to pay for items and can work out how much change I should receive.

MNU 1-09a

I have investigated how different combinations of coins and notes can be used to pay for goods or be given in change.

MNU 1-09b

Example	Methodology
£1·00 Write £1·00 or £1. (Ensure decimal point is placed at middle height.) **Correct Use of Language** Say one pound not a pound.	Explain that there are 100 pennies in £1. Explain that the written form in pounds is £1·80 without the p. When writing money, only one sign is used, either £ or p.

Measurement

I can estimate how long or heavy an object is, or what amount it holds, using everyday things as a guide, then measure or weigh it using appropriate instruments and guides

MNU 1-11a

Term/Definition

Measure lengths of up to 100cm and use appropriate instruments.

Know that 1cm = 10mm

Measure lengths in 1m, ½m 1/4m, cm and mm.

Convert m and cm to m e.g. 1m 58cm = 158cm

Show my understanding of 1 kilogram = 1000 grams and ½ kg = 500g

Correct Use of Language

3kg
Abbreviation of kg or g.
Say three kilograms.

Measurement

I can estimate how long or heavy an object is, or what amount it holds, using everyday things as a guide, then measure or weigh it using appropriate instruments and units

MNU 1-11a

Example

3l
700ml

Correct Use of Language

Abbreviation of l for litre.
Say 3 litres.
Abbreviation of ml for millilitres.
Say seven hundred millilitres.

Time

I can tell the time using 12 hour clocks, realising there is a link with 24 hour notation, explain how it impacts on my daily routine and ensure that I am organised and ready for events throughout my day.

MNU 1-10a

Example

Tells the time using half past, quarter past and quarter to using analogue and digital 12hour clocks.

Record 12 hour times using am and pm and is able to identify 24 hour notation, for example, on a mobile phone or computer.

Uses and interprets a variety of calendars and 12 hour timetables to plan key events.

Knows the number of seconds in a minute, minutes in an hour, hours in a day, days in each month, weeks and days in a year.

Orders the months of the year and relates these to the appropriate seasons.

Correct Use of Language

3:30pm
Be aware about the various ways we speak of time.
Analogue – half past three.
Digital - three thirty.

Number and number processes

I can use addition, subtraction, multiplication and division when solving problems, making best use of the mental strategies and written skills I have developed.

MNU 1-03a

Example	Methodology
5 6 + 3 9 9 5 1	When "carrying", lay out the algorithm as in the example. Put the addition or subtraction sign to the left of the calculation.
⁴5̸ ¹6 - 3 9 1 5	Always start subtraction at the top and work downwards. Say 6 take away 9. Can't do. Exchange one ten for ten units and add to the units. Do not say score out.

Correct Use of Language

Carry
Exchange

Data and analysis

I have explored a variety of ways in which data is presented and can ask and answer questions about the information it contains.

MNU 1-20a

I have used a range of ways to collect information and can sort it in a logical, organised and imaginative way using my own and others' criteria

MNU 1-20b

Term/Definition	Methodology
Bar chart: A way of displaying data if the data is discrete or non-numerical. There should be a gap between the bars. **Histogram:** A way of displaying grouped data. No gaps between the bars.	When using tally marks, each piece of data should be recorded separately in order. Tallying should be done before finding a total.

Example

Bar chart: *A bar chart showing pupils favourite flavour*

of crisps.

Histogram: *A histogram showing the number of press-ups pupils can manage in one minute.*

Correct Use of Language

Use bar graph or bar chart not block graph.
Do not confuse bar charts with a histogram.

Estimation and rounding

I can share ideas with others to develop ways of estimating the answer to a calculation or problem, work out the actual answer, then check my solution by comparing it with the estimate.

MNU 1-01a

Number and number processes

I have investigated how whole numbers are constructed, can understand the importance of zero within the system and can use my knowledge to explain the link between a digit, its place and its value.

MNU 1-02a

I can use addition, subtraction, multiplication and division when solving problems, making best use of the mental strategies and written skills I have developed.

MNU 1-03a

Uses strategies to estimate an answer to a calculation or problem, for example, doubling and rounding.

Rounds whole numbers to the nearest 10 and 100 and uses this skill routinely to estimate and check the reasonableness of a solution

Correct Use of Language

Use the terms round to and nearest to.

Number and number processes

I can use addition, subtraction, multiplication and division when solving problems, making best use of the mental strategies and written skills I have developed.

   MNU 1-03a

Fractions, decimal fractions and percentages

Through exploring how groups of items can be shared equally, I can find a fraction of an amount by applying my knowledge of division.

   MNU 1-07b

Term/Definition

Multiply
Divide

Example

$2 \times 5 = 10$
$10 \div 2 = 5$

$\frac{1}{2}$ of 10 = 5

```
  2  6
×    4
1 0  4
   2
```

```
        r1
   1 8
4 | 7 ³3
```

```
     0 7
4 |  2 8
```

Correct Use of Language

Pupils should be familiar with various words for multiply and then later for divide.
Multiply – Multiplied by, product, times.
Divide – Divided by, quotient, shared equally, division, how many left? How many remaining?
Stress multiplied by rather than times.
Use multiplication tables rather than times tables.
Do not use times by or timesing.

Methodology

When teaching multiplication tables the link to division and to fractions should also be stressed.

For multiplication tables the table number comes first. E.g.
$3 \times 1 = 3$
$3 \times 2 = 6$
$3 \times 3 = 9$
Say three ones are three.

Say:
This is 72 divided by 4.
What would you expect the answer to be?

Start by saying, 7 divided by 4. Support if necessary by asking how many fours are there in seven? Never say 4 into 7. Never say goes into.

Fractions, decimal fractions and percentages
Having explored fractions by taking part in practical activities, I can show my understanding of:

- *how a single item can be shared equally*
- *the notation and vocabulary associated with fractions*
- *where simple fractions lie on the number line.*

MNU 1-07a

Through taking part in practical activities including use of pictorial representations, I can demonstrate my understanding of simple fractions which are equivalent.

MTH 1-07c

Term/Definition	Methodology
Numerator: number above the line in a fraction. Showing the number of parts of the whole. **Denominator:** number below the line in a fraction. The number of parts the whole is divided into. **Example** $\frac{1}{4}$ **Correct Use of Language** Emphasise that it is "one divided by four."	Emphasise the connection between finding the fraction of a number and its link to division (and multiplication). Ensure that the equivalence of $\frac{2}{4}$ and $\frac{1}{2}$ is highlighted. Use concrete examples to illustrate this. Show $\frac{1}{4}$ is smaller than $\frac{1}{2}$. Your child needs to understand equivalence before introducing other fractions such as $\frac{1}{3}$ or $\frac{1}{5}$.

Measurement

I can estimate the area of a shape by counting squares or other methods.

MNU 1-11b

Correct Use of Language

$3cm^2$

Say 3 square centimetres, not 3 centimetres squared or 3 cm two.