Mount Pleasant Calculation Policy

Year 4 - By the end of year 4 we expect children to:

Addition

Add the nearest multiple of 10, then adjust
Continue as in Year 3 but with appropriate numbers e.g. 163 + 29 is the same as163 + 30 - 1

Column Addition
Compact method- up to four digits
The carried digit is in the correct column.
Decimal numbers in the context of money and
metric units.

Carry in the ones column first, then extend to tens column.

```
  346
+ 225
  571
   1
```

```
  3587
+  675
  4262
  111
```

```
  3587
+ 2675
  6262
  111
```

Extend to decimals in the context of money (vertically)
£ 2.50 + £ 1.75 = £ 4.25

```
  £ 2.50
+ £ 1.75
  £ 4.25
    1
```

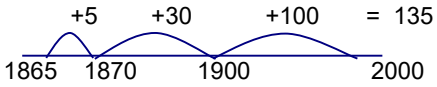
Subtraction

Subtract the nearest multiple of 10, then adjust.
Continue as Year 3 but with appropriate numbers.
178 – 69 is the same as 178 – 70 + 1

Complementary addition
Find a small difference by counting up
e.g. 5003 – 4996 = 7

Use complementary addition to subtract amounts of money, and for subtractions where the larger number is a multiple of 1000 or 100

E.g. 2000 – 1865



Compact Column Subtraction – 3 digits and 3 digits.
structured progression- exchanging from 10, then 100s

```
  4 8 7
-  2 6 4
  2 2 3
```

```
    5
  3 6 17
- 1 4 8
  2 1 9
```

Multiplication

Short multiplication
Multiplying a number with up to 2 digits by a single digit.

Short multiplication
Multiplying a number with up to 3 digits by a single digit.

```
  136
x   4
  544
  12
```

Multiplying a decimal to one decimal place.

```
12.5
x   2
25.0
 1
```

Division

Short Division (no remainders- 3 digits divided by a single digit)

252 ÷ 7

```
    0 3 6
  ┌──────
7 │ 2 ²5 ⁴2
```

Short Division (remainders - 3 digits divided by a single digit)

256 ÷ 7

```
    0 3 6 r 4
  ┌──────
7 │ 2 ²5 ⁴6
```

Short Division (remainders expressed as a fraction - 3 digits divided by a single digit)

256 ÷ 7 = 36 4/7

```
    0 3 6 r 4
  ┌──────
7 │ 2 ²5 ⁴6
```

Mount Pleasant Calculation Policy

Ensure that the carried digit is in the correct column.

Add like fractions

e.g. $^{3}/_{5} + {}^{4}/_{5} = {}^{7}/_{5} = 1\ {}^{2}/_{5}$.

Be confident with fractions that add to 1 and fraction complements to 1

e.g. $^{2}/_{3} + ? = 1$

Note- For time calculations and time problems
(Use the number line method – counting on)

School starts at 8.55. We work for 1h 45m.
What time is break?

+0.05h +0.40h + 1.00h

8.55 9.00 9.40 10.40

Counting on method for adding time

Subtracting Fractions

Subtract like fractions, e.g. $¼ + {}^{1}/_{8} = {}^{3}/_{8}$

Use fractions that add to 1 to find fraction complements to 1, e.g. $1 - {}^{2}/_{3} = {}^{1}/_{3}$

Note- For time calculations and time problems
(Use the number line method – counting back)

The school fair starts at 11 o'clock. It takes me 1 hour and 45 minutes to walk to school. What time do I need to set off?

9.15 9.30 10.00
11.00

- 0.15h - 0.30h - 1.00h

Counting back method for subtracting time