Addition: Year 5 & 6

PiXL PRIMARY

Maths

Year 5 statutory requirements :
- Add whole numbers with more than 4 digits using formal written methods of columnar addition.
- Add numbers mentally, with increasingly large numbers.
- Solve addition multi-step problems in contexts, deciding which operations and methods to use and why.
- Solve problems involving numbers up to three decimal places

Year 6 statutory requirements :
- Pupils are expected to solve more complex addition and subtraction problems

In year 5 and 6 pupils should be adding numbers using compact column addition method. **Note:** The carried ten, hundred, thousand is just as important as any other number, therefore, it should be written as clear and as large as any other number, and placed at the **bottom** of the column in which it is to be added.

```
  4 6 8 9 2
+ 3 2 7 5 8
-----------
  7 9 6 5 0
  1 1 1
```

When adding decimals, it is essential that the decimal point does not move and kept in line.

Where necessary, a zero should be added as a *place holder*.

$12.5 + 23.7$

```
   12.5
 + 23.7
 ------
   36.2
    1
```

$34.5 + 27.43$

```
   34.50
 + 27.43
 -------
   61.93
     1
```

Subtraction: Year 5 & 6

In year 5 and 6 pupils should be subtracting numbers using compact column subtraction method. **Note:** The exchanged ten or hundred is just as important as any other number. Therefore, it should be written as clear and as large as any other number, and placed at the **top** of the column which has been adjusted.

When subtracting decimals, it is essential that the decimal point does not move and kept in line.

Where necessary, a zero should be added as a *place holder*.
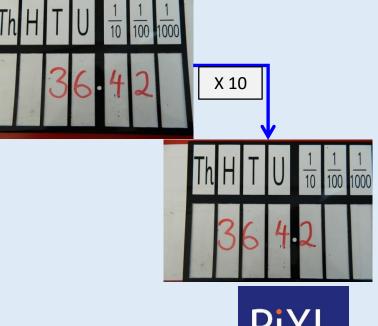
Multiplication: Year 5

Year 5 statutory requirements:
✓ Multiply numbers up to 4 digits by a one- or two-digit number using a formal written method, including long multiplication for two-digit numbers.
✓ Multiply and divide whole numbers and those involving decimals by 10, 100 and 1000

To multiply by 10, 100, 1000 children should use place value charts to show that the digit moves a column (s) to the left .The value of the digit is increasing by 10, 100 or 1000 times.

Build on learning from Year 4 and use concrete resources if needed to multiply numbers up to 4 digits by **one digit** using compact short multiplication.

x	600	40	3
50	30,000	2,000	150
4	2,400	160	12

Reinforce the connection between the grid method to multiply numbers up to 4 digits by **two digit** using long multiplication.

X 10

Division: Year 5

Year 5 statutory requirement:
✓ divide numbers up to 4 digits by a one-digit number using the formal written method of short division and interpret remainders appropriately for the context.

Further secure pupils' understanding of compact short division.

$$218 \div 8 =$$

$$\begin{array}{r} 2\ 7\ \text{r}\ 2 \\ 8\ \overline{)2^{2}1^{5}8} \end{array}$$

Extend to expressing results in different ways according to the context, including with remainders as fractions, as decimals or by rounding. For example:

- Whole number remainder $= 27\ \text{r}\ 2$
- Fraction remainder $= 27\frac{2}{8} = 27\frac{1}{4}$
- Decimal remainder $= 27\frac{1}{4} = 27\frac{25}{100} = 27.25$