This week's Learning:

Adding and Subtracting Decimals

First, we will practise to add and subtract decimals using the column method.
Next, you will create a set of instructions and questions for somebody who hasn't worked with decimals before.
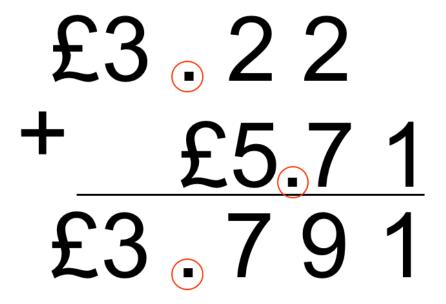
Ready or not we'll start!

https://www.youtube.com/watch?v=n-OcbG1FlBQ

I bought a new book costing £3.22 and a new pen which cost £5.71.

How much did I spend in total?

I want to add £3.22 and £5.71

Am I correct?

£3.22
+ £5.71
—————
£3.791

The golden rule:

The decimal points **MUST** be aligned before adding the numbers.

$$£3.22 + £5.71 = £8.93$$

Your turn☺

$£2.52$
$+ £4.34$
$£\quad.$

$£5.26$
$+ £4.49$
$£\quad.$

$$£4.18$$
$$+\ £3.75$$
$$\overline{£7.93}_{\,1}$$

$$£2.89$$
$$+\ £1.58$$
$$\overline{£\quad.}$$

This technique doesn't just work for money. It works for any decimal addition as long as you align the decimal points.

Sometimes it helps to introduce a place holder zero, so that each number has the same number of DECIMAL PLACES.

$$
\begin{array}{r}
3.57 \\
+\ 5.49 \\
\hline
9.06 \\
\end{array}
$$

1   1

$$
\begin{array}{r}
2.70 \\
+\ 5.46 \\
\hline
8.16 \\
\end{array}
$$

1

This place holder zero can only ever be put on the very beginning or the very end.

$$5.59$$
$$+ \ 3.50$$
$$\overline{}$$
$$9.09$$
$$1$$

The **golden** rule:

The decimal points MUST be aligned before adding the numbers.
Where necessary, add the place holder zeros to help.

Main Activity

Work out the following in your book:

(a)
```
   4  15
   5̶ 6̶ ¹3
 -  2 8 5
 ─────────
   2 7 8
 ─────────
```

(b)
```
   7 0 4
 - 4 3 9
 ─────────

 ─────────
```

(c) 13.7 – 4.56
```
   1 3 . 7 0
 - 0 4 . 5 6
 ─────────────
         .
 ─────────────
```

(d) 9 – 2.475
```
 - 2 . 4 7 5
 ─────────────

 ─────────────
```

Challenge:
Write down a set of instructions for someone who wasn't in the lesson so they will be able to add and subtract decimals. Then write 8 questions for them to practise, 2 easy, 2 slightly harder, 2 hard and two really hard.

More activities to practise are added separately.

Have fun!