Rounding Decimals

Memorise this Poem

Find your number. Underline it.
Look next door.
4 or less just ignore.
5 or more, add 1 more.

Rounding

Find the number. Underline it.
Look next door.
4 or less just ignore.
5 or more add one more.

Example: Round 41<u>2</u>9 to nearest **hundreds**.
Underline the 1 in the hundreds place.
Look next door at the 2.
It is 4 or less so just ignore.
4129 rounds to 4100

#1 Steps for Rounding

Find the number. Underline it.
Look next door.
4 or less just ignore.
5 or more add one more.

Example: Round 5.328 to the nearest Whole num.
Circle the 3 in the tenths column.
Look next door at the 3.
It is 4 or less so just ignore.
5.32 rounds to 5.00

TThTh H T U

100 000s	10 000s	1000s	100s	10s	1s
		2	**0**	**0**	**0**
2	**0**	**0**	**0**	**0**	

× 10

Don't forget to label the columns when timesing and dividing!

U .tths hths

10s	1s	•	$0·1s \frac{1}{10} s$	$0·01s \frac{1}{100} s$
		•	**1**	**2**
	1	•	**2**	

× 10

T U .tthshths

10s	1s	•	$0·1s \frac{1}{10} s$	$0·01s \frac{1}{100} s$
1	**2**	•	**5**	
	1	•	**2**	**5**

÷ 10

Grid multiplication

Partition the numbers, as seen below.

256 × 4   Options

×	200	50	6
4			

Answers are then placed in the correct boxes, as seen below.

256 × 4   Options

×	200	50	6
4	800	200	24

Add the three answers together, and this will give your final answer.

256 × 4   Options

×	200	50	6
4	800	200	24

```
  800
  200
   24
+
_____
= 1024
```

Big Maths—Partitioning numbers. This will help with grid multiplication.

Counting   Squiggleworth   Step 4
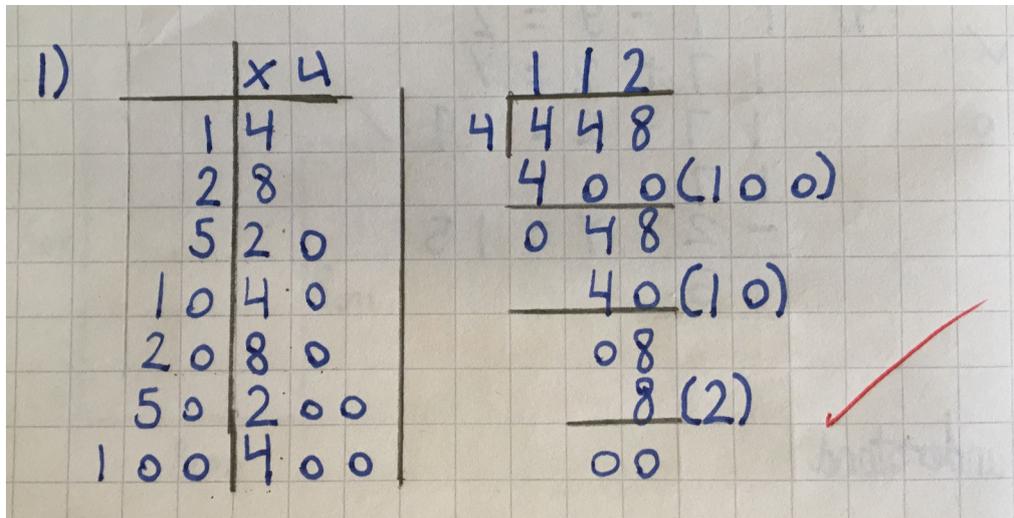
I can partition a 2 dp number

Remember to:
- write the number
- draw the sticks
- copy the units digit
- copy the tenths digit…with "zero-point" in front of it.
- Copy the hundredths digit… with 'zero-point' in front of it

6 . 1 7

6   0.1   0.07

Coin division. Below is an example of how we use coin multiplication to answer division questions.

The question is 448 ÷ 4 =

Step 1—create the coin card for the number that you are dividing into the larger number. A coin card is created by using all of the numbers that are the same as the coins in circulation in our currency (1=1p, 2=2p etc).

Step 2—complete the coin card in common sense steps—do 1, then 10 then 100. Then complete 2 then 20. Finally complete 5 then 50. Use little techniques to help—5 is half of 10.

Step 3—start the division by creating the bus stop on the right.

Step 4—Find the biggest multiple of 4, as close to 448 as possible, but without going above it. Then, in brackets, write down how many times you had to times 4 by to get that answer. Above, we have used 400, and in brackets we have put 100. This is because, 100 x 4 = 400.

Step 5—Take 400 away from 448 and write the answer underneath. We now have an answer of 48.

Step 6—You can now either use your common sense and understanding of your 4 times table. Go through the 4s and get to 48. 12 x 4 = 48. So you would write 48 underneath the 48 in the division sum, take them away and get 0. In brackets you would write 12. Or, use the coin card and work through logically. The next biggest multiple on the coin card, as close to 48 as possible, and without going above is 40. 48—40 = 8. In brackets you put what you had to times 4 by to get to 40—(40).

Steps 6—Follow these steps until you get to zero at the bottom of your bus stop division, as seen above, or until you get a remainder.

Step 7—you then add all of the numbers in the bracket, and this is your answer.

Step 8—You can check your answer using the inverse and grid multiplication.

Column addition

Th H T U

1000s	100s	10s	1s
3	6	8	2
+ 2	7	5	3
1	1		
6	4	3	5

With column addition using abacus, we carry the numbers using a space we leave when creating the sum at the start. You can see the 1s in the row. This means that the children can see the numbers clearly and don't forget to add them on to their final answer.

Column subtraction

HTh TTh Th H T U

100 000s	10 000s	1000s	100s	10s	1s
				5	12
4	3	5	6̸	7̸	4
− 2	4	7	3	5	2
					2

Very similar in terms of set-up to column addition, although this time space is left at the top of the numbers for your workings.