**Tuesday 31st March**

**L.K: To use place value to answer column addition equations**

Column addition and subtraction is crucial to understanding the process of addition and subtraction, especially when using larger numbers. In Year 4, we start at 4-digit numbers, but this progresses until at Year 6 we work at numbers in the millions!

The children should be very well-drilled in this, so this will be a recap lesson for most. But, if any do struggle, you can give them more questions in the following format to practice.

**Addition**

1253
2513 +
3766

You add each number to the format above, making sure that each digit has its own place value column. This is VERY important as, if you put it the wrong the place, you will end up with a completely different answer.
Digits can only go up to 9 in each column so, if you had 11 for example, it would look like this.

2345
4216 +
6561
 1

The extra “1” would have to be carried into the next column and added to that columns total.

**Practice with the following:**

1. 2132 + 2451 =
2. 3296 + 5462 =
3. Three thousand, four hundred and twenty two add four thousand, nine hundred and six.
4. Two thousand, six hundred and fifty three add one thousand, two hundred and seventy one.
5. 2351 add seven thousand and thirty three

**Reasoning and Problem Solving**

**ONE STAR**

1. I have 1050 marbles. My friend gives me 345 more and another friend gives me another 1136. How many marbles do I have now? Is it more or less than 2000 and by how much?
2. A tree measures 3950 centimetres tall. It grows 235cm per year. What will the tree measure after one year?
3. “When you add 3251 to 4398 you will need to carry numbers because you can only have a maximum of nine in each column”. Am I correct? Work out the answer and prove it.

**TWO STAR**

1. “3 + 8 = 11. So, using this, I know that 300 + 800 must equal 110”.
Am I correct? Explain the mistake I have made.
2. In a school play, 89 children performed for their parents. There were 124 parents in the room and another 56 teachers. How many people were in the room altogether?
3. I have 3700 rolls of toilet roll. I don’t think I have enough, so I buy another 2154 rolls of toilet roll. How many rolls do I have now?

**THREE STAR**

1. I have 39 Lego pieces in a box. I add 17 Lego pieces to my box.
A) How many should I have in the box now?
B) If I have 3900 pieces of Lego and add 1700 more to a box, how will my answer be different? What has changed?
2. “When I add using column addition, I don’t need to worry about place value, as you don’t need place value when adding”. Is this person correct? Can you explain your answer with an example?
3. A tree grows 135cm per year. How much will it have grown in 11 years?
How big would the tree be after 30 years if it continued the same rate of growth?

**EXTENSION**

Try the following questions. If you want something even more difficult, try the last question!



