

## Maths No Problem Methods

### Addition and Subtraction

There are three main methods that we use to teach addition and subtraction; use of dienes, the column method and the part by part whole method. Please see examples below:

#### Use of Dienes

Children would draw the dienes for the number sentence given. They represent ten as a line, and one as a dot. Then simply add the total by counting all of the tens and then all of the ones.

$23+41=$



When renaming we would encourage the children to regroup the ones into one ten and rename it.

$27+15=$



To subtract with dienes, we simply draw the dienes and cross out the amount we wish to subtract.

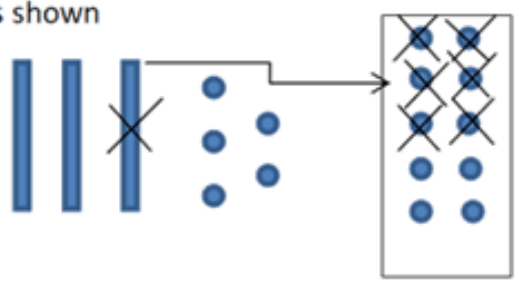
$35-12=$



Then count the remaining dienes for the answer!

If needing to rename we encourage the children to exchange one of the tens for ten ones and draw this out as shown

$35-6=$



## The Column Method

For the column method we encourage the children to write T for tens and O for ones at the top of each column and write the numbers carefully underneath.

$23+41=$  T O

$$\begin{array}{r} 2 \quad 3 \\ + 4 \quad 1 \\ \hline 6 \quad 4 \\ \hline \end{array}$$

$27+15=$  T O

$$\begin{array}{r} 2 \quad 7 \\ + 1 \quad 5 \\ \hline 4 \quad 2 \\ \hline 1 \end{array}$$

Adding with renaming- we often call the one underneath the 'sneaky one' so the children don't forget to add it on!

Subtraction with the column method, with and without renaming-

$35-12=$  T O

$$\begin{array}{r} 3 \quad 5 \\ - 1 \quad 2 \\ \hline 2 \quad 3 \\ \hline \end{array}$$

$35-6=$  T O

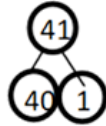
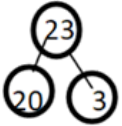
$$\begin{array}{r} \cancel{2} \quad 3 \quad 1 \quad 5 \\ - \quad \quad 6 \\ \hline 2 \quad 9 \\ \hline \end{array}$$

When counting back for the ones we encourage the children to put the 15 in their 'magic pocket' and count out loud backwards from 14 whilst using their fingers to show when they have subtracted the 6.

## Part-part whole method

The part part whole method is good for encouraging the children to find answers mentally by compartmentalising numbers into tens and ones.

$23+41=$  we split the 23 and 41 into tens and ones and then add these together.



$$20+40=60$$

$$3+1=4$$

$$60+4=64$$

$$27+15=$$

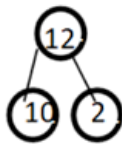
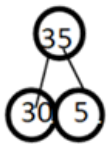
$$20+10=30$$

$$7+5=12$$

We then encourage the children to split the 12 to add on in their heads.

$$30+10+2=42$$

$35-12=$  When subtracting we split the 35 and 12 into tens and ones and then subtract these from one another.



$$30-10=20$$

$$5-2=3$$

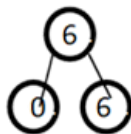
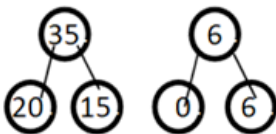
$$20+3=23 \leftarrow \text{We always call this last part}$$

the 'strange part' as we adding in a subtraction equation.

Subtraction with renaming.

When needing to rename, due to the fact the one digit we are subtracting is bigger than the one digit we are subtracting from, we ask the children to split the first number in the 'tricky way' by moving a ten across to create a teen number on the one side.

$$35-6=$$



$$20-0=20$$

$$15-6=9$$

$$20+9=29$$