## Key Stage 2 Maths information for parents

## Dividing a 2 digit number by a 1 digit number (no exchanges required)

Division calculations rely a lot on the children's prior knowledge of multiplication and division facts. The emphasis is on recognising the link between multiplication and division and to think of division as being grouping. So 30 divided by 5 means how many 5 s can we fit into 30 .

Step 1: Use equipment or a pictorial representation to show your calculation, using a place value table is helpful here. The number of rows in your table is the number of groups that you are dividing between

$$
84 \div 4=
$$



Step 2: Divide your tens and then your ones between the groups equally. If the number you are dividing is divisible by the number of groups you have then you will have an equal number in each group. Count how much you have in one group to find the answer.

$$
84 \div 4=21
$$



Step 3: You can also record the calculation more formally by using a part part whole model. Start by partitioning the biggest number into tens and ones. Then work through each section of the calculation seeing how many 4 s ' go into' 80 , then how many 4 s 'go into' 4 . Add the two totals together to get the final answer.

$$
84 \div 4=21
$$




## Dividing a 2 digit number by a 1 digit number (exchanges required)

Step 1: Use equipment or a pictorial representation to show your calculation, using a place value table is helpful here. The number of rows in your table is the number of groups that you are dividing between. In this example, three tens can divide equally and so can be put into the tens column. The other two tens and one one are yet to be divided.


Step 2: When the tens don't divide equally you need to make an exchange (in this example exchange two tens for twenty ones)

$$
51 \div 3=
$$



Step 3: Then divide the counters between the groups equally, count how many are in one group to give you the total.


Step 4: You can also use a part part whole model to record this more formally. In this example the best way to partition the numbers is not into tens and ones as both the numbers shown are mulitple of 3 . This is called flexible partitioning.

```
51\div3=17
```



$$
10+7=17
$$

## Dividing a 2 digit number by a 1 digit number (with remainders)

Completing division questions which have remainders follows exactly the same process and can be completed and recorded using equipment and the part part whole model.

$$
87 \div 4=21 \text { remainder } 3
$$



$$
638 \div 3=212 \times 2
$$



