# Parents' Guide to Maths Year 3

**Importance of using the correct method**
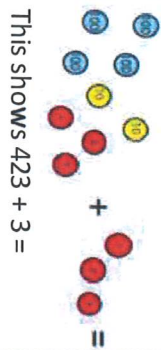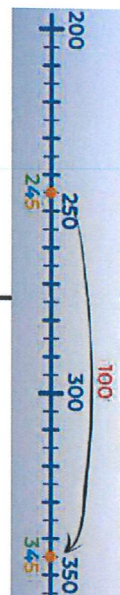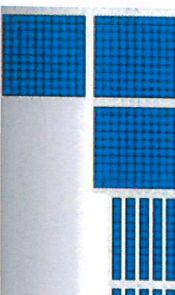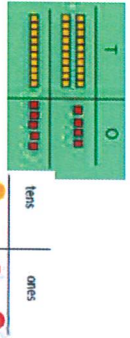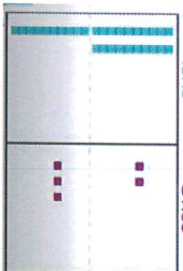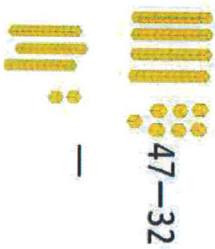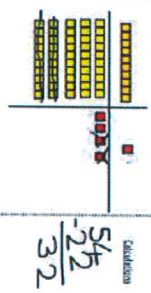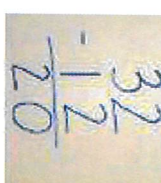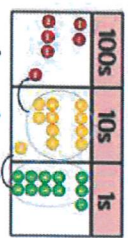
Thank you for supporting your children with their maths. Remember, you may know other methods that are different or quicker, but it is important for the children to use the methods we use in school. We hope this guide will be helpful for you.

## + Addition +

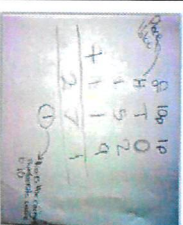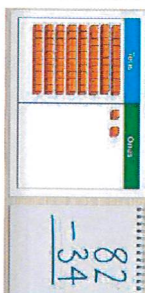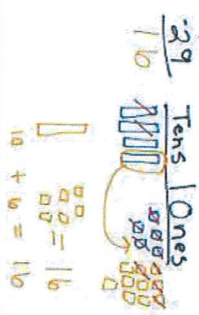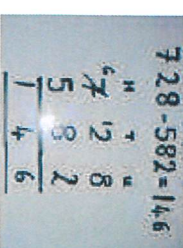| National Curriculum | Concrete | Pictorial | Abstract |
|---|---|---|---|
| To add and subtract numbers mentally, including a three-digit number **and** ones, tens or hundreds. | Use Dienes or place value counters to add amounts.  This shows 423 + 3 = | Counting on in ones, tens or hundreds. Draw a number line.  |  |
| To add numbers with up to three digits using the formal method of column addition. | Model using Dienes **or** place value counters.  Add together the ones first then the tens, then the hundreds. | Children move onto drawing onto a place value grid.  | Now add numbers in the columns starting with the ones column.  243 +368 611 1 1 |
| Column addition. Column addition or subtraction with regrouping. |  Using counters: When there are 10 ones in the 1s column, we regroup for one ten; when there are **10** tens in the 10s column, **we regroup for 1 hundred.** | Children can draw the grid. Then regroup the **ten** underneath the line.  |  |

## - Subtraction or Take away-

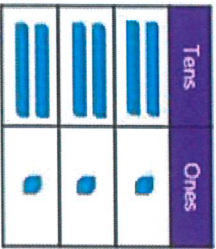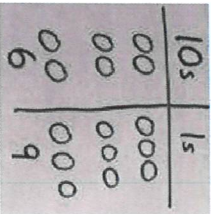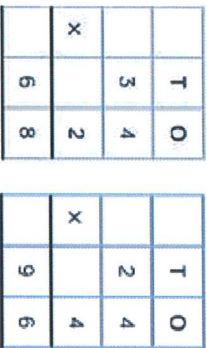| Concrete | Pictorial | Abstract |
|---|---|---|
| Use Dienes or place value counters to subtract amounts.  355 - 30 = | Use place value counters to subtract. Draw a number line.  | Use Dienes or place value counters to subtract.  345 - 100 = 245 |
| Use Dienes or place value counters to subtract.  47 – 32 | Draw representations to support understanding.  | Subtract the numbers in columns.  |
| Use Dienes or place value counters. **Exchange a ten into ten ones.** This is called 'regrouping'.  82 -34 | Draw Dienes or place value counters and cross them off when regrouping.  | Regroup numbers and change place value in each column when needed. 728 - 582 = 146  |

# Parents' Guide to Maths Year 3

**National Curriculum expects children in year 3 to:**
- Count from 0 in multiples of 4, 8, 50 and 100
- Find 10 or 100 more or less than a given number.
- Recall and use multiplication and division facts for the 3, 4 and 8 multiplication tables.
- Solve problems, including missing number problems, involving multiplication and division.
- Solve problems, including scaling problems and correspondence problems (how many different ways)

**Glossary: array** – a set of counters or dots arranged in rows.
**multiples** – A multiple is a number that can be divided by another number a certain number of times without a remainder.
**Remainder** – sometimes when you divide, there's a number left over.
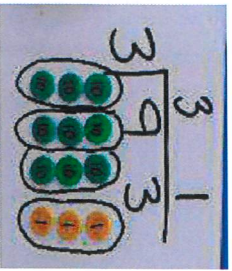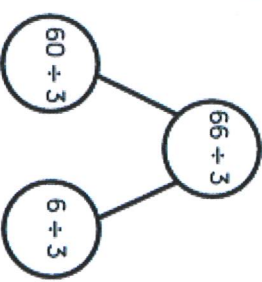**Regroup** – to make groups of eg 10/100 (used to be called 'carrying' or 'borrowing')

## x Multiplication x

| National Curriculum | Concrete | Pictorial | Abstract |
|---|---|---|---|
| *Multiply and divide two-digit numbers times one-digit numbers, using mental and going on to the formal written methods.* | Use Dienes or place value counters to support. Eg 21 x 3 =  | Children could draw the counters eg 23 x 3 =  | Using partitioning $3 \times 23$ $3 \times 20 = 60$ $3 \times 3 = 9$ $60 + 9 = 69$   $\begin{array}{r} 23 \\ \times\ 3 \\ \hline 69 \end{array}$  Using an expanded method of columns. $\begin{array}{r} 6\ \ 3 \\ \times\ \ \ 8 \\ \hline 2\ 4\ (3 \times 8) \\ 4\ 8\ 0\ (60 \times 8) \\ \hline 5\ 0\ 4 \end{array}$  Using the column method. Some children may move onto regrouping a number.  |

## - Division -

| Concrete | Pictorial | Abstract |
|---|---|---|
| Sharing using Dienes or place value counters.  | Bar models may also be drawn, like this:  with and then without counters. $24 \div 4 = \_\_$ Use a part-whole model like this:  Draw dots, showing a remainder if necessary.  Jump forward on a number line, like this:  | Start using short division – the 'bus stop' method, with and then without counters.  Some children may be ready to regroup numbers. $96 \div 4 = 24$ $\begin{array}{r} 2\ 4 \\ 4\overline{)9\ {}^{1}6} \end{array}$ |