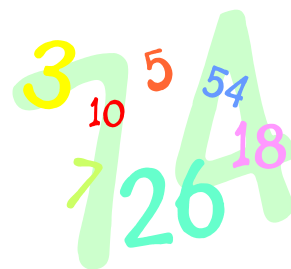
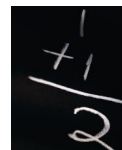


Mathematics



These pages aim to show you the main methods used to teach addition and subtraction. There are two main methods:

- Mental calculation strategies
- Written calculation strategies



Mental calculation strategies

The ability to calculate in your head is an important part of maths and an important part of coping with every day life! Children are taught to learn number facts by heart and use known facts to work out facts they cannot recall rapidly.

We want our children to be able to:

Recall rapidly all pairs of numbers with a total of 10
e.g. $7+3$

Recall rapidly addition and subtraction facts to 20

Recall rapidly addition doubles of all numbers up to 10 the 20 e.g. $4+4$, $9+9$

recall rapidly all pairs of multiples of 10 with a total of 100 e.g. $70+30$

Know 2, 5 and 10 x tables off by heart and corresponding division facts

know all pairs of numbers with a total of 20 e.g. $17+3$

We teach children to:

- Count on and back in ones and tens, always putting the biggest number first when adding e.g. $27-4$, $15+3$
- Reorder numbers when adding to find pairs that make 10 e.g. $6+4+5$
- Use multiples of 10 and 100 e.g. $30+47$ can be worked out by $30+40+7$
- Use near doubles e.g. $13+14$ can be worked out by double 13 and add 1, $40+39$ can be worked out by double 40 and subtract 1
- Double and half e.g. $7+7$ is 7×2 , half of 30 is 15

Written Calculation Strategies

Addition and Subtraction—we teach children to use written notes, pictures etc to aid their mental calculation strategies. We teach children to use whole number strategies using their mental knowledge

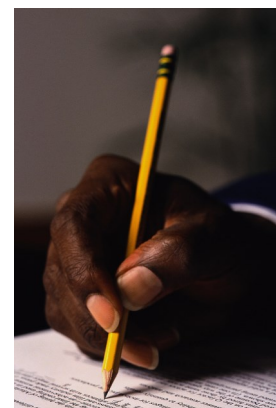
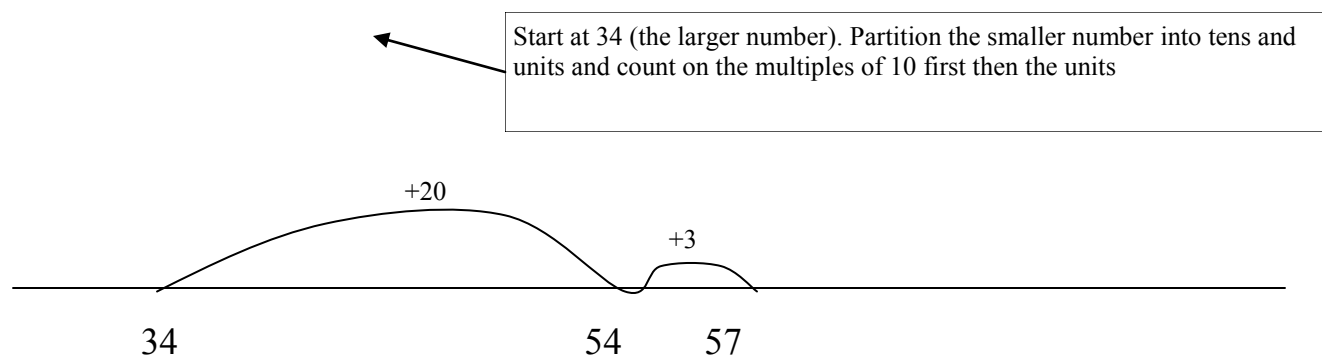
e.g. $36+12 = 30+6+10+2$
 $=40+8$
 $=48.$

NOT $\begin{array}{r} 36 \\ +12 \\ \hline \hline \end{array}$

Research shows that children should not be taught pencil and paper methods too soon. All sums are presented horizontally not vertically!

We encourage children to:

- Use their own individual means of recording. Many children use pictures, words and symbols. Different methods are often used by different children for the same calculation and this can lead to some useful discussion
- Use blank number lines e.g. $23+34$



How you can help at home

Read numbers when out and about
e.g. prices, house numbers, car
registrations, ISBN numbers on
books, signs etc



Practise counting in 2s, 3s,
5s, and 10s.
Remember to count
forwards and backwards.

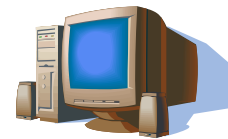
Practice adding and subtracting
numbers when you are in the car.
e.g. number bonds to 10 and then
20,



Practise adding one more/less,
10 more/less in your head with
any number to 100 and then
beyond



Play games involving maths e.g. snakes and ladders, Monopoly etc
Play maths games on the internet– the following sites have some great games:
<http://www.bbc.co.uk/schools/ks1bitesize/numeracy/>
<http://www.bbc.co.uk/schools/starship/maths/index.shtml>
<http://www.bbc.co.uk/schools/numbertime/index.shtml>



Teach your child to tell the
time. Start with o'clock,
half past and then quarter
past and quarter to



Let your child handle money. Practise making
different amounts e.g. 52p, adding in 10s, giving
change.

Encourage them to read prices e.g. £1.45

