

**Maths for Infant Pupils'**  
**Parents**

**November 2013**

# Addition and subtraction facts

## At first they need to.....

- + and – using **fingers, unifix, beads**, etc. using numbers under 10 and then over 10
- + and – using a **number line** using numbers under 10 and then over 10, using both a **number line** and a **100 number square**

## PLAY SNAKES AND LADDERS AT HOME

- Children need to learn that  $2+8$  is the same as  $8+2$ , and even more importantly that  $8+2$  is a lot easier to do.

They need to realise that there are 2 different subtraction sums and some are actually difference between calculations

e.g.  $47-3=$       and       $47-38=$       .

# Then they need to....

- link  $1+3=4$  to  $10+30=40$  rather than use dienes
  - $23+5=$  is easier to do than  $5+23=$
  - $12+3=$  is easier to do than  $3+12=$
- counting on from the largest number (touch head) and using fingers
- using a number line and dienes too

# Number bonds

- **know and use their number bonds of 10 e.g.**  
 **$7+3=10$   $3+7=10$   $10-7=3$   $10-3=7$**

Fingers up and down method, best friends etc.

- **know and use their number bonds of 20 e.g.**  
 **$17+3=20$   $13+7=20$   $20-7=13$   $20-3=17$  etc.**

Best friends...quick recall..

- **know and use their number bonds of 100**  
**using 10s e.g.  $70+30=100$   $30+70=100$   $100-70=30$   $100-30=70$**
- **Must use these facts in word problems e.g.**
- *I need 10 sweets and only have 6 so how many more do I need to buy? etc.*

# Difference between and bridging 10's skills

- Unifix towers to compare.....
- Number line jumping in 1's between the two numbers
- Graphs-how many more?
- $13-9=$  .....empty number line method
- $97-69=$ .....empty number line method

# Teaching quick mental methods

- know doubles and halving number facts

**Quick recall is needed**

- use their doubling knowledge to calculate 'near' doubles e.g.

$$8+8=16$$

so if you know that then  $9+8=16+1=17$

- Spotting number bonds of 10 etc.

$$9+7+1=11+3=$$

$$10-7=$$

# Using a number square

- Add 1 and take away 1- by going in the right direction
- know 10 more and 10 less- by remembering the number above and below on a 100 number square.  
e.g.  $61-10=51$  and  $61+10=71$
- know 20 more and 20 less etc. - by remembering the number sequences above and below on a 100 number square.
- Adding 11, 21 or subtracting 11, 21

# 2 and 3 digit numbers

Know partitioning facts such as

$$16 = 10 + 6, \quad 58 = 50 + 8$$

and the reverse  $10 + 6 = 16$ ,  $50 + 8 = 58$ .

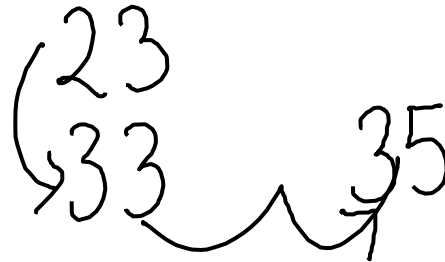
- Arrow cards to understand place value
- Digit cards to build numbers -beware  $1 + 1 = 11$
- Dienes to add etc. -beware of counting 22 in dienes as 10, 20 30 40 (**need to count in 10's and then in 1's from the 10---10, 20, 21, 22 etc.**)



# Addition of 2 digit numbers to 100- supports mental methods

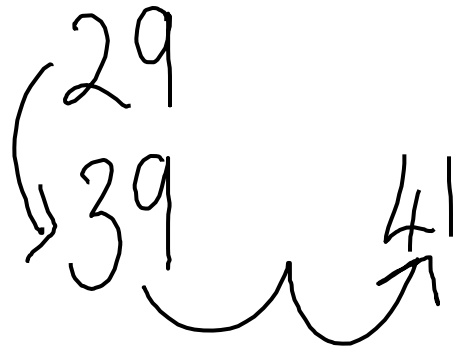
**23+12=**

- $23+10+2=$
- $33+2=35$



**29+12=**

- $29+10+2=$
- $39+2=$

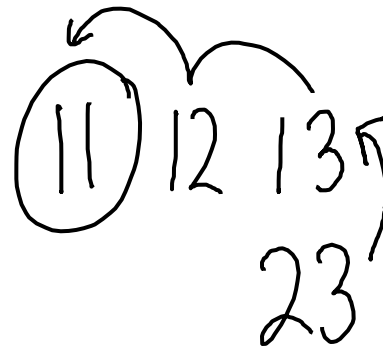


**USE a 100  
square to  
do this  
calculation!**

# Subtraction of 2 digit numbers again supports mental methods!

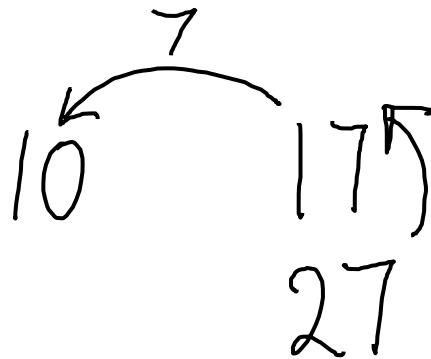
**23-12=**

- $23-10-2=$
- $13-2=11$



**23-17=**

- $23-10-7=$
- $13-7=6$



USE a 100  
square to do  
this  
calculation!

For your future information, written methods using vertical addition and subtraction are now taught in Y3-4 and follow this method. It is probably VERY DIFFERENT to how you were taught! You will notice that the true values of the digits are used!

**You will notice that the TRUE VALUES of the digits are used!**

- $4+3=7$
- and then  $60+20=80$


- (B)
- $3+9=12$
  - and then  $60+80+10=150$
  - and then  $100+100=200$

(A) Initially

$$\begin{array}{r} 163 \\ + 89 \\ \hline 12 \\ 140 \\ 100 \\ \hline 152 \end{array}$$

(B)

$$\begin{array}{r} 163 \\ + 89 \\ \hline 152 \\ \hline 100 \end{array}$$



$$\begin{array}{r} 64 \\ + 23 \\ \hline 87 \end{array}$$

For your future information, written methods using vertical addition and subtraction are now taught in Y3-4 and follow this method.

It is probably very different to how you were taught!

You will notice that the TRUE VALUES of the digits are used!

- We know that 30 is 20 and 10
  - So  $14-9=5$
  - and then  $20-10=10$
  - We do not call the 3 a 3 it is a 30 and the 1 is a 10!
- 
- We know that 100 is a 90 and a 10
  - So  $14-7=7$
  - and then  $90-80=10$

# Money

- Recognise all the different coins –no 3p coins!!!
- Difference ways to make 7p etc.
- Using large coin and then adding smaller coins e.g. 52p is 50p and 2p up to £1 and then beyond.
- Buying 2 items up to 10p etc.
- Giving change from 10p etc. DIFFERENCE BETWEEN!!
- Buying using multiples e.g. 2p, 10p, 5p etc.
- What can you buy for 40p?

# Times tables

- Counting in 10s, 5s, 2s,
- Introducing 1 lot of/group of 10 is USE ARRAYS
- $1 \times 10 = 10$  etc.- end of Year 1
- $\times 3, \times 4, \times 6, \times 7, \times 8, \times 9$ , Y2/Y3 depending upon sets.....must be established by Y4

Using their fingers help at first but it is essential that they have quick recall to tables eventually.

Stick up 1 finger ..say 10 stick up 2<sup>nd</sup> finger...say 20.....etc.

# Maths at home!

- Make cakes
- Play board games
- Play card games
- Spend money at the shops
- Read house numbers/bus numbers as you walk down the road.
- Look for odd/even numbers!
- Count in patterns 2,4,6,8,10....as you walk down the stairs etc