



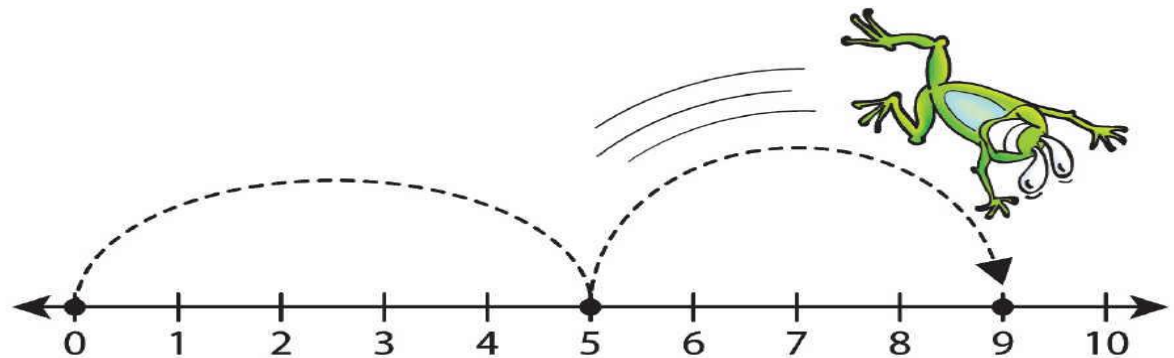
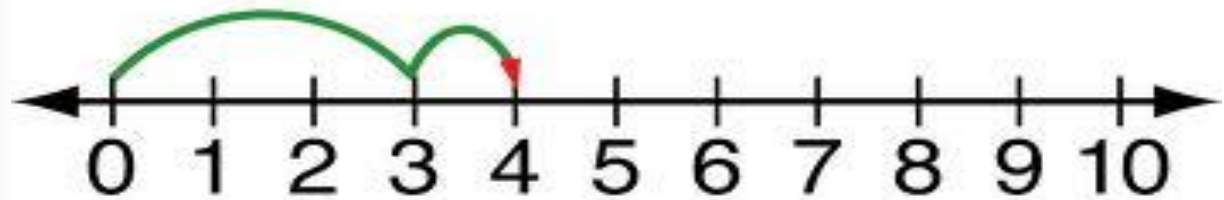
# Maths Workshop



Saxilby C of E Primary School

Progress towards using  
number lines...

$$3 + 1 = 4$$



Progress towards using a  
hundred square and knowing  
bonds to 20...



1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100





# Place value and counting.. the building blocks....



Knowing and **understanding** that:

- $45 = 4 \text{ tens and } 5 \text{ units}$
- Counting in tens from any number starting with numbers to 100



(see KIRFs for help on these)



Saxilby teaches concepts and understanding (the what and the why) before the procedure (the how)




# Mental strategies develop alongside ....

- Doubles e.g.  $14 + 14$ ,  $138 + 138$
- Near doubles e.g.  $14 + 15$  (same as  $15 + 15$  but take one away)
- Counting up  $28 + 46$  (start with 46 then add 20 then add 8)
- Near multiples of ten  $29 + 34$  (29 is close to 30 so add 30 to 34 then subtract the extra one)
- More to follow on mental methods later in the year...





# Partitioning...

- Partitioning involves splitting a number into tens and units



Partitioned numbers are then written under one another:


$$\begin{array}{r} 47 \\ + 76 \\ \hline \end{array} \quad \begin{array}{r} 40 + 7 \\ 70 + 6 \\ \hline 110 + 13 = 123 \end{array}$$


$$\begin{array}{r} 156 \\ 386 \\ \hline \end{array} \quad \begin{array}{r} 100 + 50 + 6 \\ 300 + 80 + 6 \\ \hline 400 + 130 + 12 = 542 \end{array}$$

# Expanded Written Method

- Begin with the least significant digit


$$\begin{array}{r} 549 \\ + 499 \\ \hline 18 \\ 130 \\ 900 \\ \hline 1048 \\ \hline \end{array}$$

Answer



# Standard Written Method

TU

56

$$\begin{array}{r} + 67 \\ \hline 3 \\ \hline 1 \end{array}$$

HTU

56

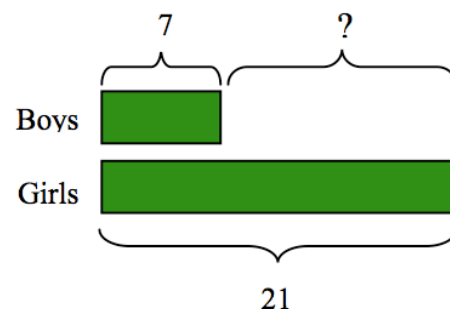
$$\begin{array}{r} + 67 \\ \hline 123 \\ \hline 1 \end{array}$$



# As calculating develops, these skills are also developed...

- Estimate answers
- Check by doing an inverse operation (a – to check a + calculation)
- What is most efficient way to calculate?
- Missing numbers e.g.  $? + 27 = 49$
- Number balances e.g.  $? + 47 = 26 + 43$
- Solving word problems
- Bar method visual can help:

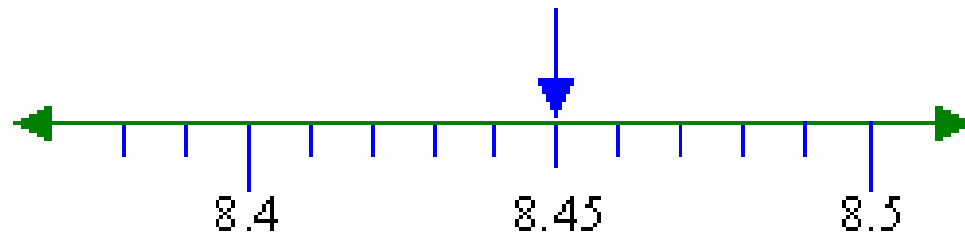
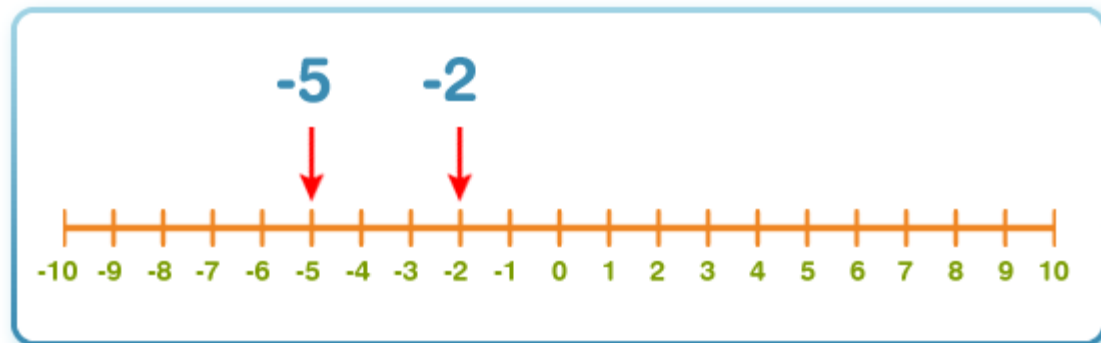
[www.bbc.co.uk/skillswise/0/24925787](http://www.bbc.co.uk/skillswise/0/24925787)





Begin process to extend to  
negative numbers and decimals

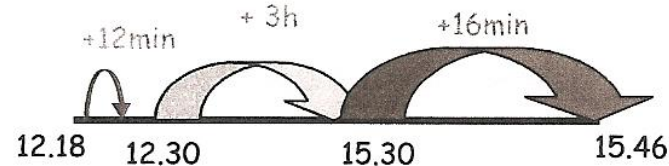
- Go back to practical then visual  
before written calculations



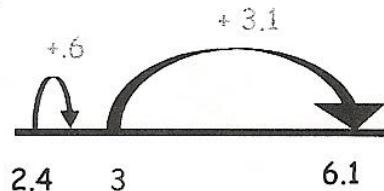
# Jottings and Blank Number Lines are acceptable to solve problems, even in Y6!

The train leaves at 12.18 and arrives at 15.46.  
How long is the journey?

The journey takes 3h 28min



6.1 - 2.4



$$3.1 + 0.6 = 3.7$$





# Adding fractions...must be practical and visual first...

- 
- With denominators that are the same...

$$3/8 + 1/8 \quad (\text{Year 4})$$

- 
- With denominators that are not the same...


$$2/8 + 3/16 \quad (\text{Year 6})$$