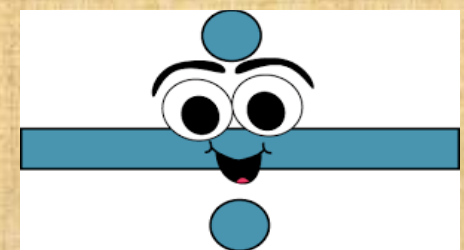
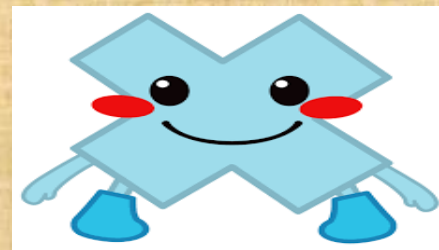
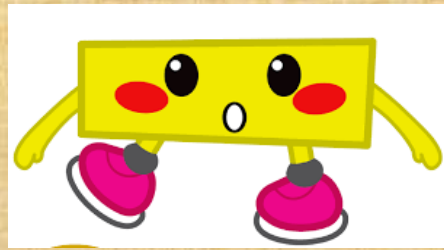
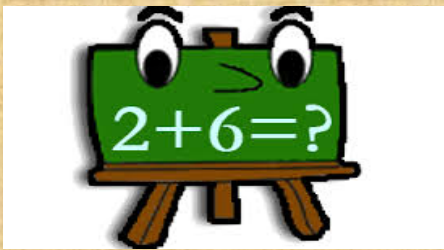


# Family Learning Support



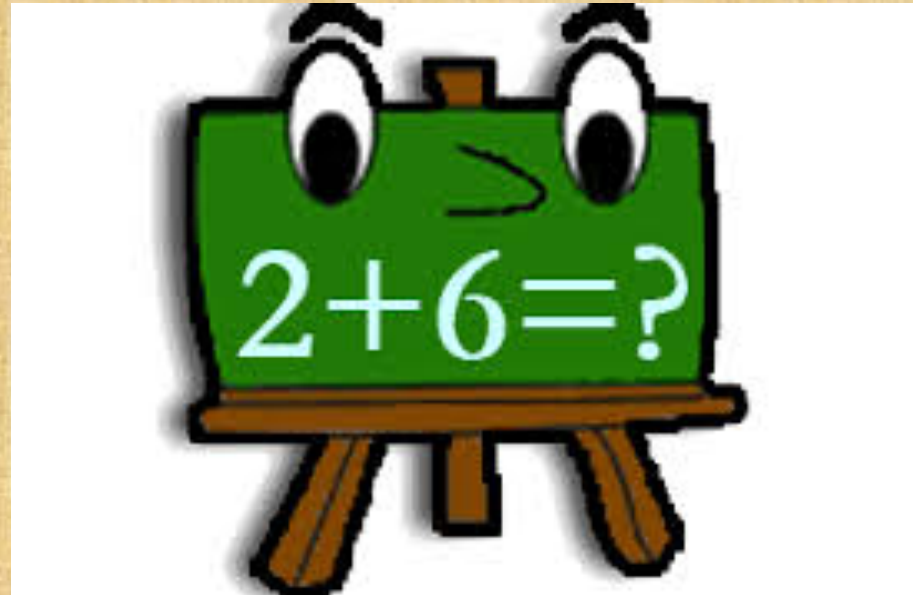
## Numeracy at FIRST Level



This is a guide to supporting your child/ren with numeracy at home.

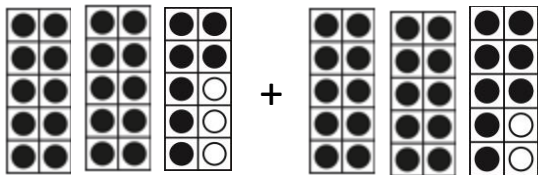
Here we aim to share with you the main approaches children use when learning about the 4 operations – addition, subtraction, multiplication and division at First Level (P2 – P4).

# Addition



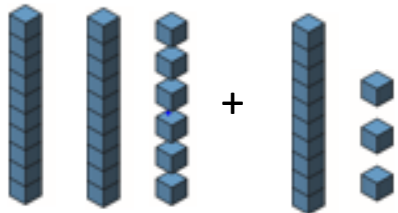
At **First Level**, it is still really important that children use concrete materials or drawings when learning new addition skills. Children are introduced to different ways to carry out addition calculations. They are encouraged to talk about which strategy they have chosen.

Using **ten frames** to find  $27 + 28$



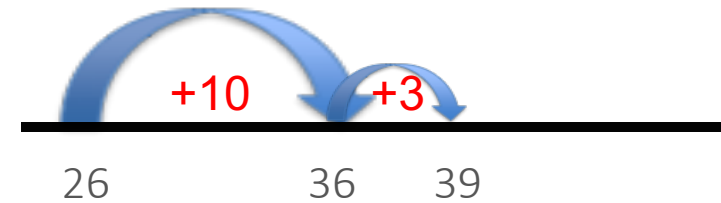
Fill the third frame using counters from the last frame to make another set of ten, resulting in five sets of ten and five ones.

Using **base 10 materials** to find  $26 + 13$

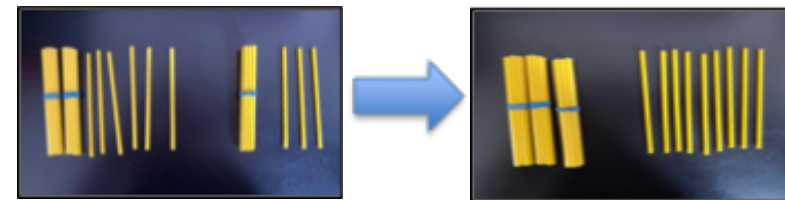


Group the tens, and then the ones together resulting in three sets of ten and nine ones.

Representing  $26 + 13$  on a **number line**:



Using conceptual place value materials to find  $26 + 13$



Children practise using and selecting the best strategy to help them carry out mental calculations too. For example:

### Counting On to find $37 + 22$

Children can use a number line or 100 square to count on in jumps of different sizes.

$$37 + 10 + 10 + 2 = 52$$

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

### Split Strategy to find $34 + 25$

Children can add the 'tens' and the 'ones'.

$$34 + 25 =$$

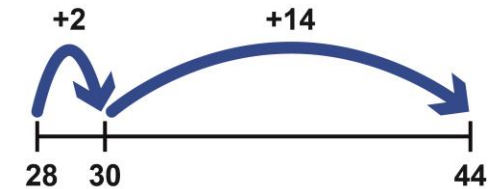
$$30 + 4 + 20 + 5 =$$

$$30 + 20 + 4 + 5 =$$

$$50 + 9 = 59$$

### Bridging to find $28 + 16$

Bridging is about jumping to the nearest 10. Children can split (or break up) the 16 into 2 and 14, to count on from 30.



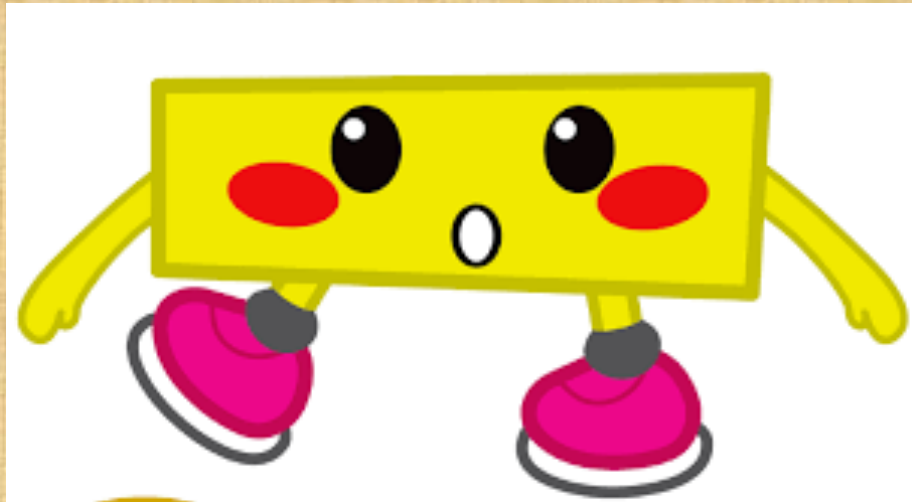
### Compensating to find $37 + 19$

Children can make the calculation easier by adjusting one of the numbers. Adding 20 is easier than adding 19!

$$\text{Add } 1 \text{ to the sum, } 37 + 20 = 57$$

Then take away the extra one that was added, so the answer is 56.

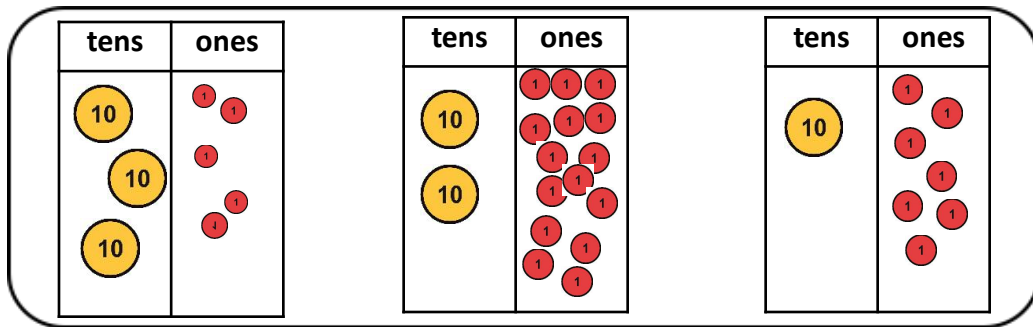
# Subtraction





At **First Level**, children are taught to use a variety of strategies to help them work out a calculation such as  $35 - 18 = ?$  It is really important that children use **concrete materials and visual approaches** to help deepen their understanding. They are encouraged to talk about the strategy they have chosen.

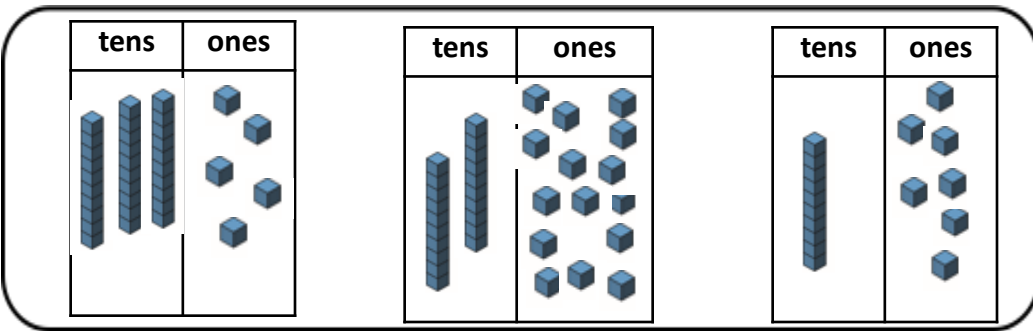
Using counters and base ten to find  $35 - 18$



Layout three tens and five ones

Exchange one ten for ten ones

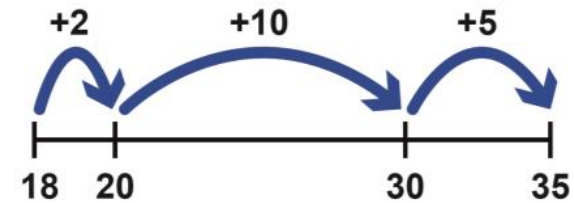
Subtract 1 ten and 8 ones, which leaves 1 ten and 7 ones



Using the **jump strategy** on a number line to find  $35 - 18$

Mark has 35 stickers. Mia has 18 stickers. How many more stickers does Mark have?

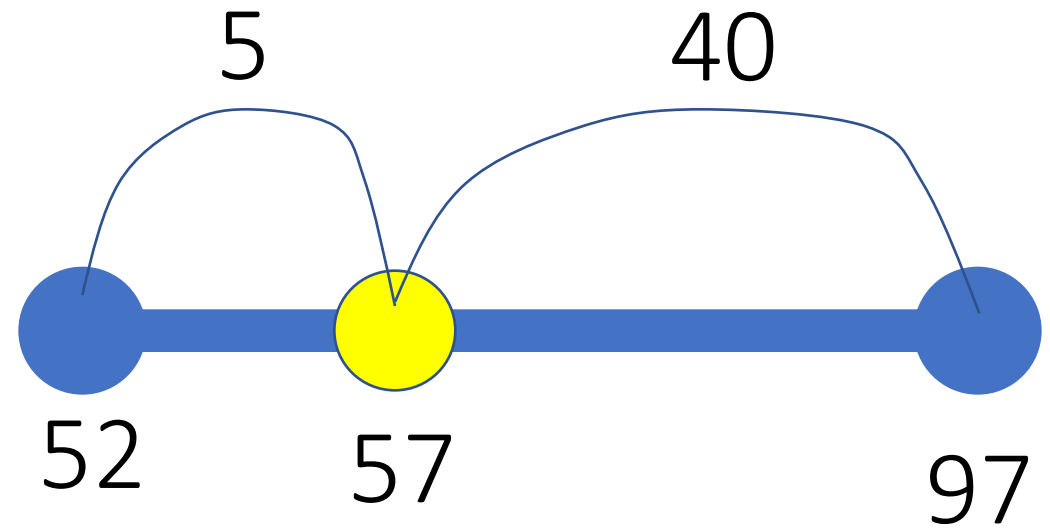
Mark	35	
Mia	18	?



The 100 square or empty number line are strategies to help children **visualise** subtracting one number from another. This helps when children need to carry out a calculation mentally. Just like with addition, children need to have a good understanding of '**place value**' (how much each digit is worth).

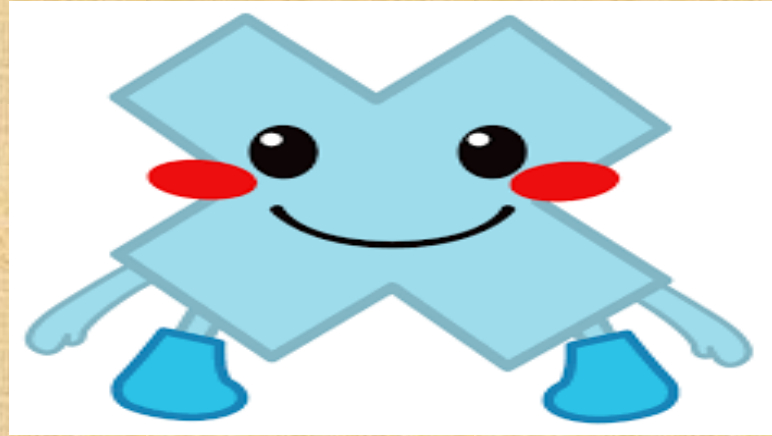
1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100

$$97 - 45 = 52$$



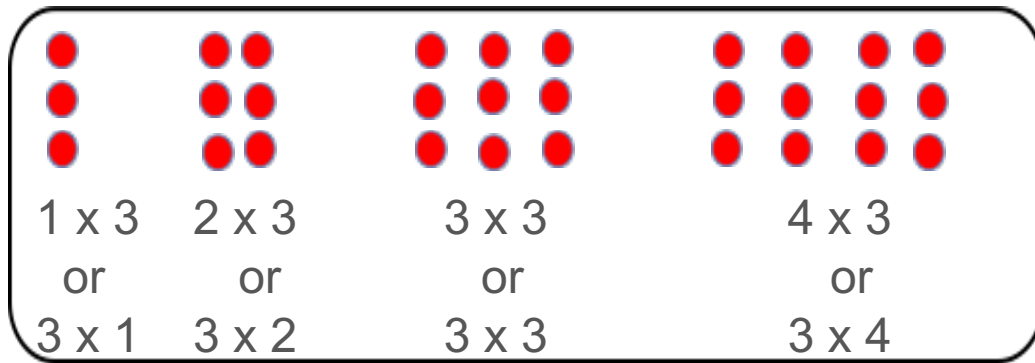
$$97 - 45 = 52$$

# Multiplication





At **First Level**, children continue to investigate equal groups. In doing so, they learn that multiplication can be done **in any order**, for example,  $5 \times 4 = 20$  and  $4 \times 5 = 20$ . Multiplication and division are taught together, which helps children see how they are connected. Visual approaches are used including **arrays** to give children a depth of understanding of multiplication.



Arrays are groups arranged in rows and columns in the shape of a rectangle.

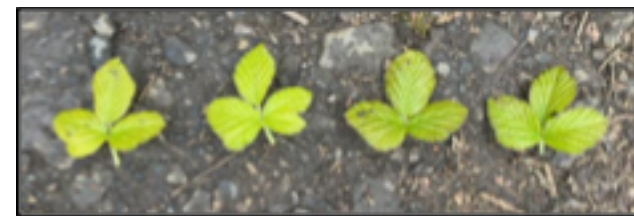
Arrays are really helpful when children are building up their multiplication facts.

Arrays help children understand that  $2 \times 3$  will give the same total as  $3 \times 2$



Egg boxes are great for exploring arrays.

Many examples of arrays can be found outdoors!

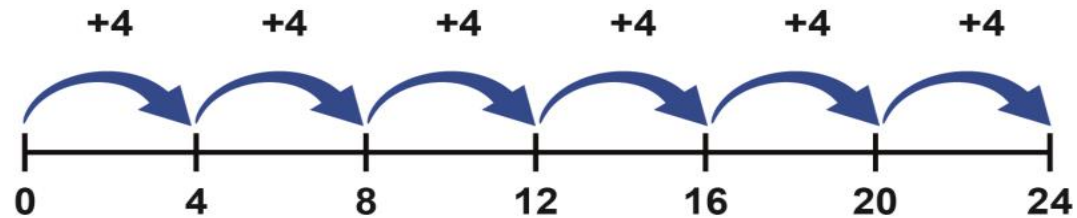


$4 \times 3 = 12$   
is the same as  
 $12 \text{ divided by } 4 = 3$

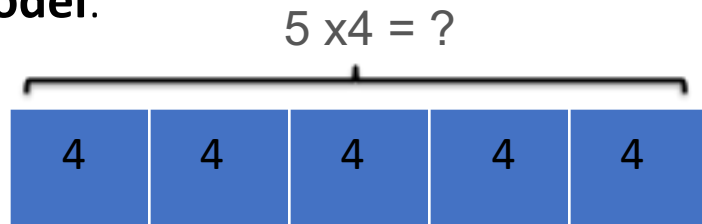
Children learn to use other visual strategies. Empty number lines and bar models help them make links between **repeated addition** and multiplication. Children's understanding of times tables facts are built up, using their knowledge of doubles and skip counting (e.g., counting up in 2s, 5s and 10s).

"Jenny gets £4 pocket money each week. How much does she have after 6 weeks?"

**Number line:**



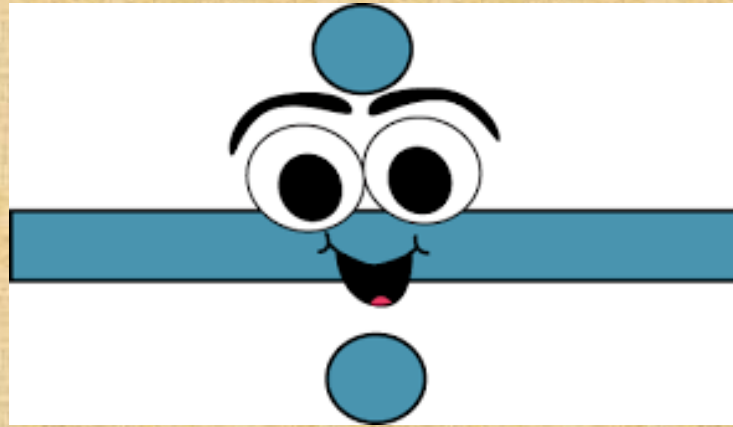
**Bar model:**



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

Hundred squares are used to show skip counting visually. Children are encouraged to make sequences on a hundred board and continue patterns.

# Division



At **First Level** children continue to investigate and work with equal groups. **Concrete materials** and **visual approaches** help children to have a good understanding of division. Division is taught alongside multiplication so that children can see how they are connected. Solving problems also helps children to practise their skills. Children also begin to learn **times tables** which helps them when dividing.

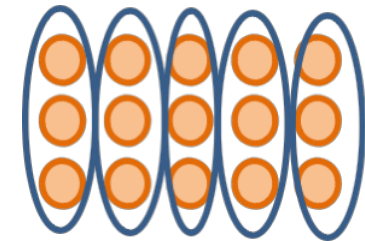
### Using objects or drawings

$4 \times 3 = 12$   
is the same as  
 $12 \text{ divided by } 4 = 3$



### Using arrays

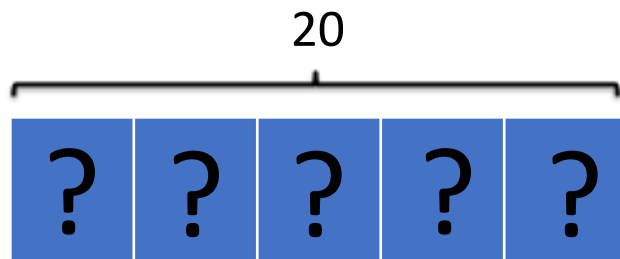
How many groups of 3 are in 15?



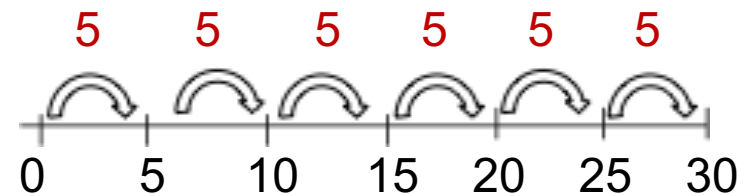
So,  $15 \text{ divided by } 3 = 5$

### Using a bar model

£20 is shared between 5 people. How much do they each get?



### Using a number line



There are 30 children in a class. How many groups of 5 can they get into?



*“Parental involvement is about supporting pupils and their learning. It is about parents and teachers working together in partnership to help children become more confident learners.”*

*(Scottish Schools (Parental Involvement) Act Guidance, 2006)*

Please let us know if you have found this guide about numeracy helpful.

Thank you!

Should you have any questions, please get in touch.

