

Addition & Subtraction

Pre-School

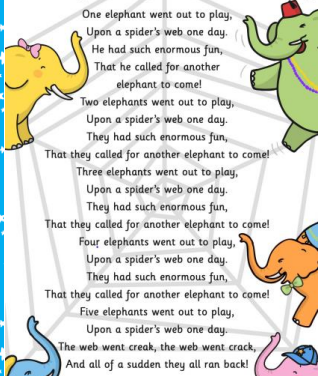
Five Speckled Frogs

Five little speckled frogs
Sat on a speckled log
Eating the most delicious
bugs (yum yum)
One jumped into the pool
Where it was nice and cool
Then there were four green
speckled frogs. (glub glub)

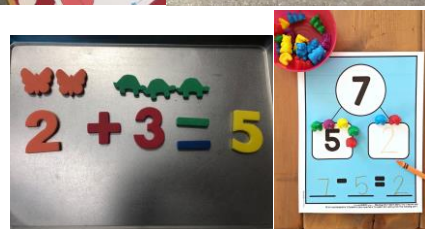


One Elephant Went Out to Play

One elephant went out to play,
Upon a spider's web one day.
He had such enormous fun,
That he called for another
elephant to come!
Two elephants went out to play,
Upon a spider's web one day.
They had such enormous fun,
That they called for another elephant to come!
Three elephants went out to play,
Upon a spider's web one day.
They had such enormous fun,
That they called for another elephant to come!
Four elephants went out to play,
Upon a spider's web one day.
They had such enormous fun,
That they called for another elephant to come!
Five elephants went out to play,
Upon a spider's web one day.
The web went creak, the web went crack,
And all of a sudden they all ran back!



EYFS

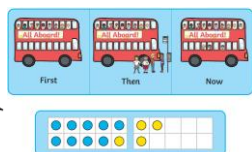


Year 1

I partitioned 4 into
1 and 3.

$$9 + 1 = 10$$

$$10 + 3 = 13$$



$$5 - 0 = 5$$

$$5 - 1 = 4$$

$$5 - 2 = 3$$

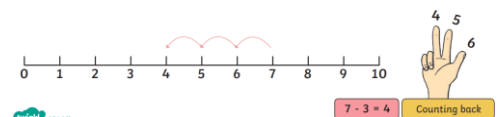
$$5 - 3 = 2$$

$$5 - 4 = 1$$

$$5 - 5 = 0$$



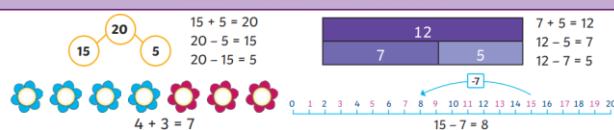
$$4 + 3 = 7$$



$$7 - 3 = 4$$

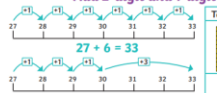
Year 2

Addition and Subtraction Bonds to 20



Methods

Add 2-digit and 1-digit



Subtract 1-digit from 2-digit



Add 2-digit numbers

$$34 + 28 = 62$$

3 tens and 4 ones

add

2 tens and 8 ones

equals

5 tens and 12 ones

becomes

6 tens and 2 ones

3 tens and 4 ones

Subtract 2-digit numbers

$$62 - 28 = 34$$

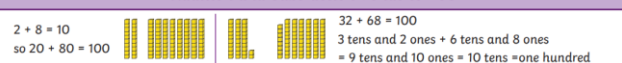
6 tens and 2 ones becomes

5 tens and 12 ones subtract

2 tens and 8 ones equals

3 tens and 4 ones

Addition and Subtraction Bonds to 100



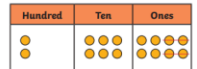
Year 3

Addition and Subtraction Methods

3-digit and 1-digit numbers

Not crossing 10s

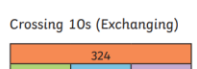
$$268 - 4 = 264$$



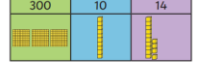
$$343 + 6 = 349$$



Crossing 10s (Exchanging)



$$316 + 8 = 324$$



$$324 - 8 = 316$$

3-digit and 2-digit numbers

Add and subtract tens

$$451 + 3 \text{ tens} = 481$$

$$451 - 4 \text{ tens} = 411$$

Count in 10s mentally

Add 100, subtract 20

Crossing 10s (Exchanging)

$$258 + 80 = 338$$

Column method

Count in 10s mentally

Add 100, subtract 20

Crossing 10 and 100

$$368 + 73 = 441$$

$$368 - 73 = 295$$

$$368 + 73 = 441$$

$$368 - 73 = 295$$

3-digit numbers

Not crossing

$$679 - 351 = 328$$



Crossing 10s (Exchanging)

$$269 + 154 = 423$$

$$4101 - 514 = 3587$$

$$268 + 154 = 422$$

$$268 - 154 = 114$$

Add and Subtract 100s

$$284 + 300 = 584$$

$$514 - 268 = 246$$

$$284 + 300 = 584$$

$$514 - 268 = 246$$

Year 4

Add 4-digit numbers

No exchange

$$\begin{array}{r} 5162 \\ + 3427 \\ \hline 8589 \end{array}$$

One exchange

$$\begin{array}{r} 5162 \\ + 3497 \\ \hline 8659 \end{array}$$

Multiple exchanges

$$\begin{array}{r} 5864 \\ + 3497 \\ \hline 9361 \end{array}$$

Subtract 4-digit numbers

No exchange

$$\begin{array}{r} 5789 \\ - 3421 \\ \hline 2368 \end{array}$$

One exchange

$$\begin{array}{r} 615749 \\ - 3421 \\ \hline 27368 \end{array}$$

Multiple exchanges

$$\begin{array}{r} 615749 \\ - 3421 \\ \hline 27368 \end{array}$$

Efficient subtraction

$$6000 - 3617 = 2383$$



Crossing ones, tens or hundreds

$$5392 + 4 \text{ tens} = 5432$$

$$5126 - 600 = 4526$$

crossing tens

crossing hundreds

When crossing ones, tens or hundreds, more than one digit will change.

Year 5

Addition

Place Value Grid: $3274 + 5601 = 8875$



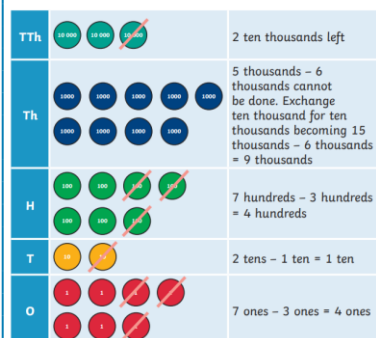
Column Method

Starting with the ones, add each column in turn. Regroup tens, hundreds, thousands, ten thousands and/or as required.

$$\begin{array}{r} 45864 \\ + 23497 \\ \hline 69361 \\ 111 \end{array}$$

Subtraction

Place Value Grid: $35727 - 6313 = 29414$



Column Method

Starting with the ones, subtract each column in turn. Exchange tens, hundreds, thousands and/or ten thousands as required.

$$\begin{array}{r} 35727 \\ - 6313 \\ \hline 29414 \end{array}$$

Year 6

Add and Subtract Whole Numbers

Column Method

	4	5	8	6	4
+	2	3	4	9	7
	6	9	3	6	1
		1	1	1	

Starting with the ones, add each column in turn. Regroup tens, hundreds, thousands, ten thousands as required.

	3	5	7	13	12
-		3	4	7	6
	3	2	2	6	6

Starting with the ones, subtract each column in turn. Exchange tens, hundreds, thousands and/or ten thousands as required.

Order of Operations

B	Brackets	$10 \times (4 + 2) = 10 \times 6 = 60$
O	Order	$5 + 2^2 = 5 + 4 = 9$
D	Division	$10 \div 6 + 2 = 10 \div 3 = 13$
M	Multiplication	$10 - 4 \times 2 = 10 - 8 = 2$
A	Addition	$10 \times 4 + 7 = 40 + 7 = 47$
S	Subtraction	$10 \div 2 - 3 = 5 - 3 = 2$

Ideas for home

Pre-School - counting songs and rhymes

EYFS - Collect toys - (add more) how many do you have now? (take away) how many do you have now? Using objects - there are 10 sweets, teddy eats 2 now how many do we have. Sing number songs such as 5 little ducks.

Year 1 - Support children to solve addition and subtraction equations using small objects. Play board games. Add the spots on dominoes.

Year 2 - Playing board games or card games to add and subtract numbers. Helping to set the dinner table - I've got... how many more do I need? How many knives, forks and spoons altogether?

Year 3 - Using playing cards to make 2 and 3 digit numbers to add and subtract. Word problems for example, there are 500 tickets and 236 have been sold so far, how many are left?

Year 4 - Using playing cards to make 3 and 4 digit numbers to add and subtract. Word problems for example, the stadium can hold 5000 people, 2345 people have arrived so how many seats are left?

Year 5 / Year 6 - Use this link to find a bank of games and activities to practise adding and subtracting.

<https://www.stem.org.uk/resources/community/collection/15028/years-5-6-addition-and-subtraction>

Log on to Mathletics and work through the addition and subtraction topic!