Parent Workshop - Addition

1. Begin to understand the progression in written calculations and the emphasis on reasoning
2. To understand the importance of a positive attitude towards maths
3. To use a growth mindset
4. To have fun with numbers!

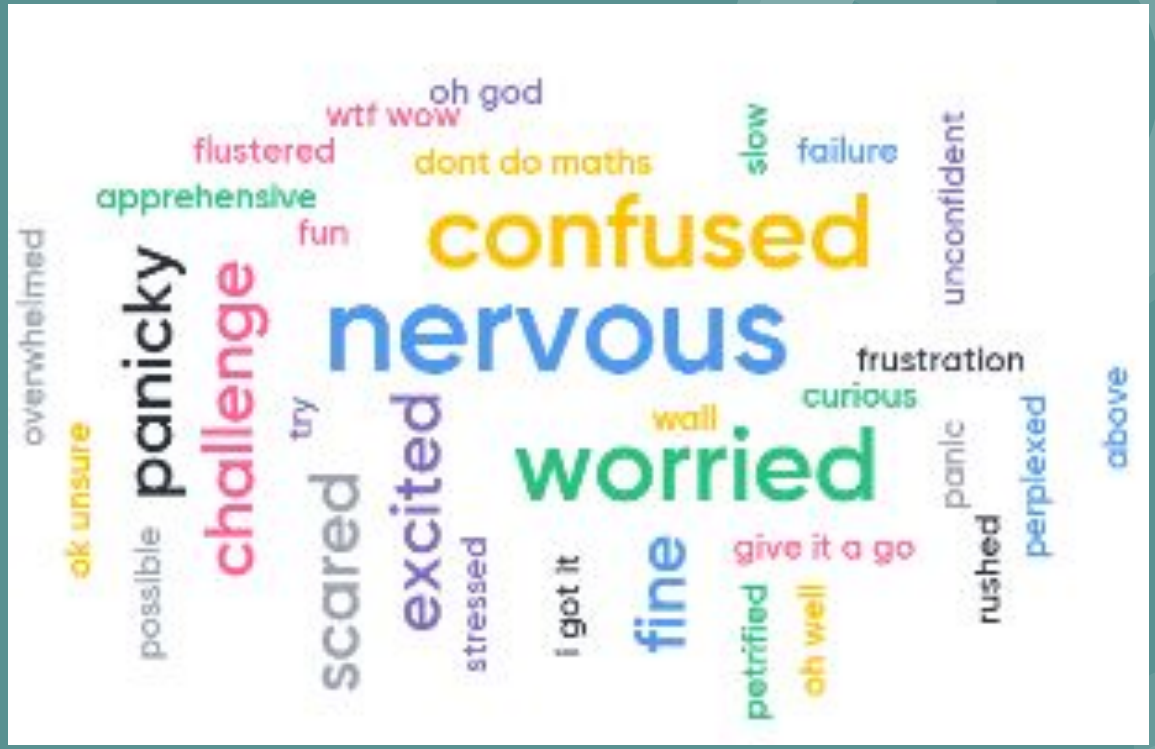
Rationale

Why is maths so important?

Greek meaning ‘learning’

Hebrew meaning ‘thinking’

Mathematical mindsets

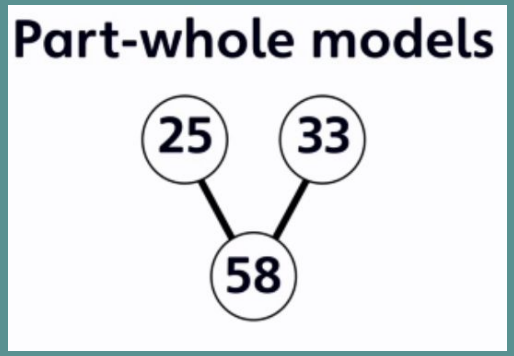


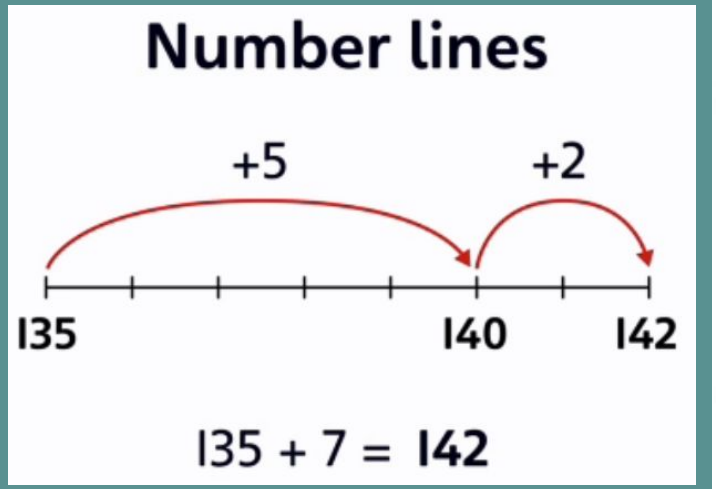
Mathematical vocabulary

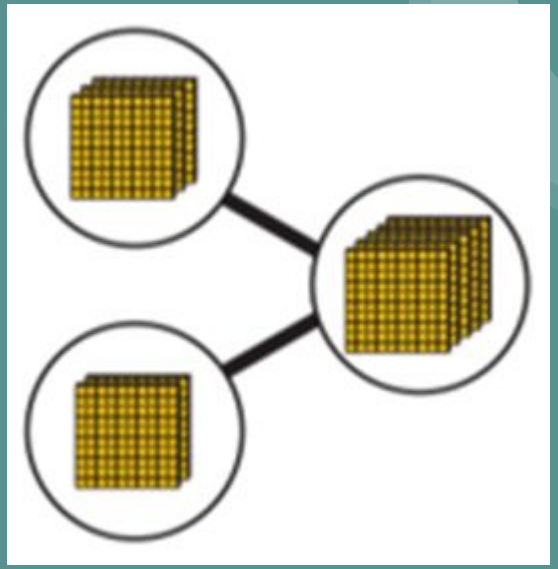
Correct terminology (since new 2014 curriculum)	**Incorrect terminology (what you may have used previously)**
ones	units
is equal to (is the same as)	equals
zero	oh (the letter o)
exchange / exchanging	stealing
regrouping	borrowing
calculation / equation / number sentence	carrying
commutative	generic term of 'sum'
bridge	swap/move

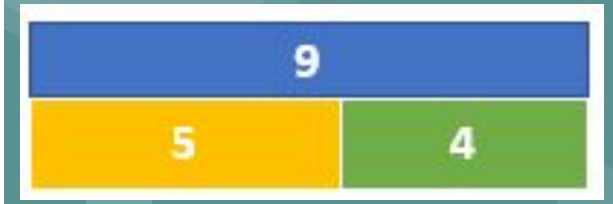
whole and part – particularly useful when using bar modelling

Representations









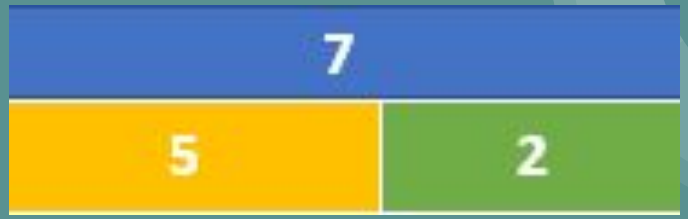
Number Bonds

I know that
__ + __ = __

Then I also know __ tens + __ tens = __ tens

Extend to hundreds, tenths etc.

5 + 2 =



5 + 2 = 7

2 + 5 = 7

7 - 2 = 5

7 - 5 = 2

I know that
_____

.....more than.....is equal to.....

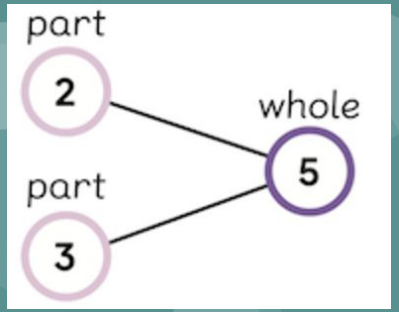
.....more than.....is .....

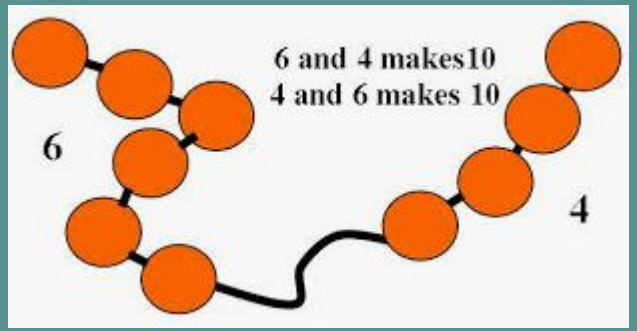
..... is ..... more than .....

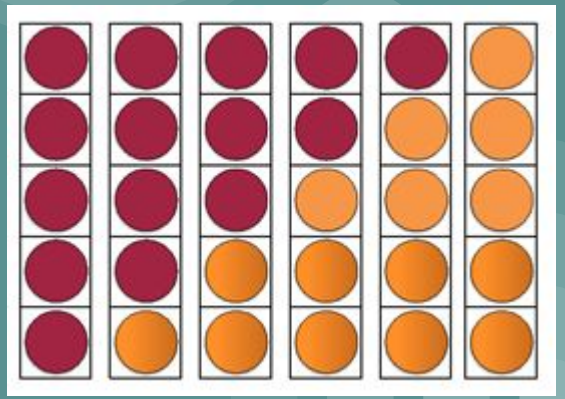
Number Bonds

The children need to know:

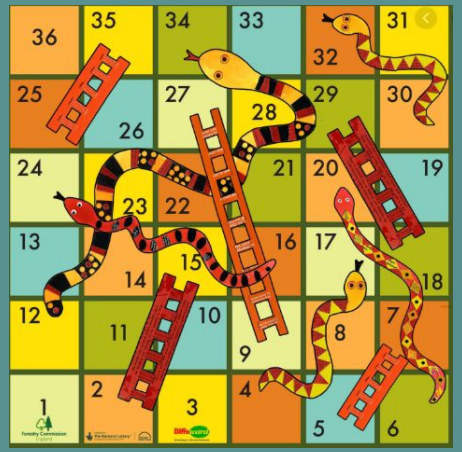
- Of 10 7 + 3
- Within 10 5 + 2
- Of 20 17 + 3
- Within 20 15 + 2
- Apply this to whole tens 70 + 30
- Within 100 41 + 59







Play Greedy Pig game



Number Bonds

37 + _ _ = 100

4 _ + _ 3 = 100

_ _ _ + 256 = 1000

1 _ 5 + _ 9 _ = 1000

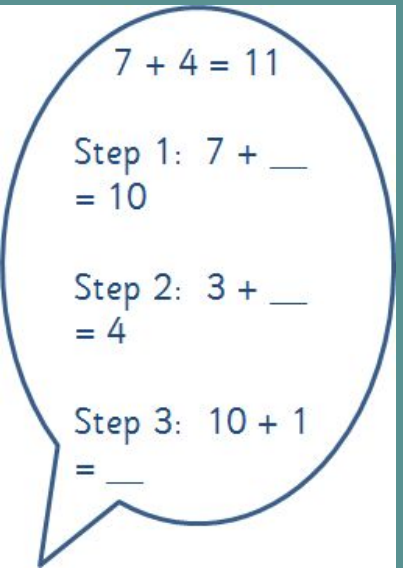
4.2 + _ . _ = 10

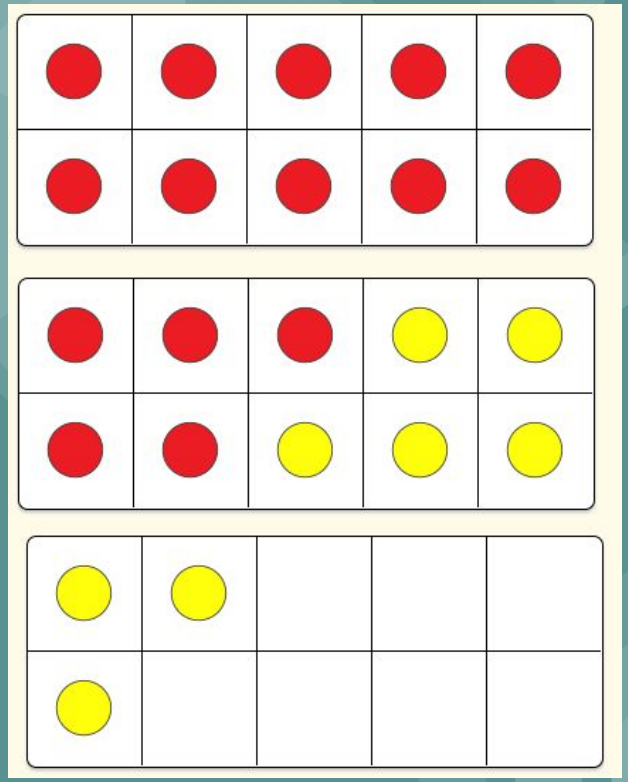
Regrouping to make 10

15 + 8

47 + 16

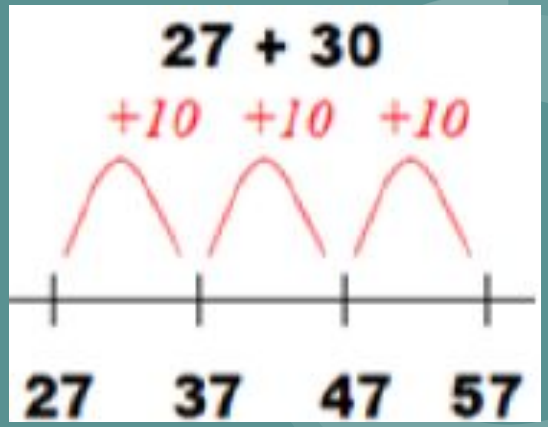
3+5+7





Adding multiples of 10

27 + 10 = __
27 + 20 = __
27 + 30 = __

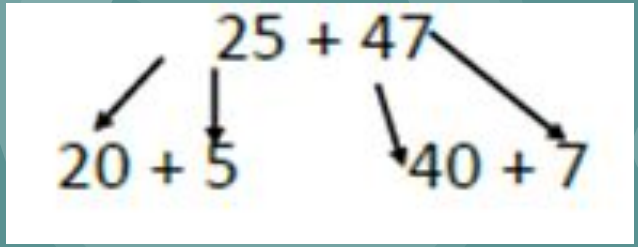


27 + 2 lots of 10
27 + __ = 87

Which digit is staying the same and which digit is different?

Partitioning - adding 2 two digit numbers

25 + 47 =



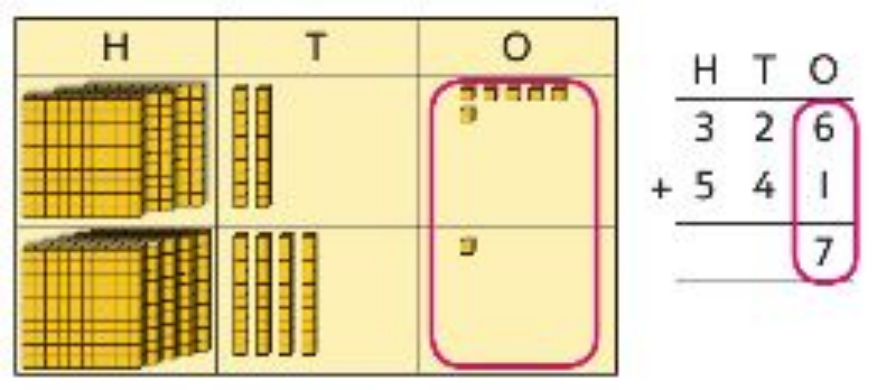
How would you partition 25?

47 + 20 + 3 + 2 =

47 + 3 + 20 + 2 =

40 + 20 + 7 + 5 =

Column addition (no regrouping)



Step 1: add the ones

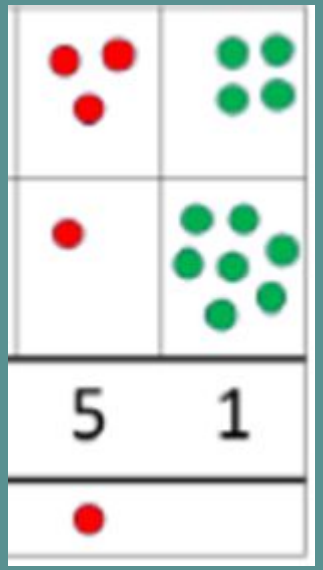
Step 2: add the tens

Step 3: add the hundreds

Lay out resources in columns to represent the calculation
Add, beginning with the smallest value digit.

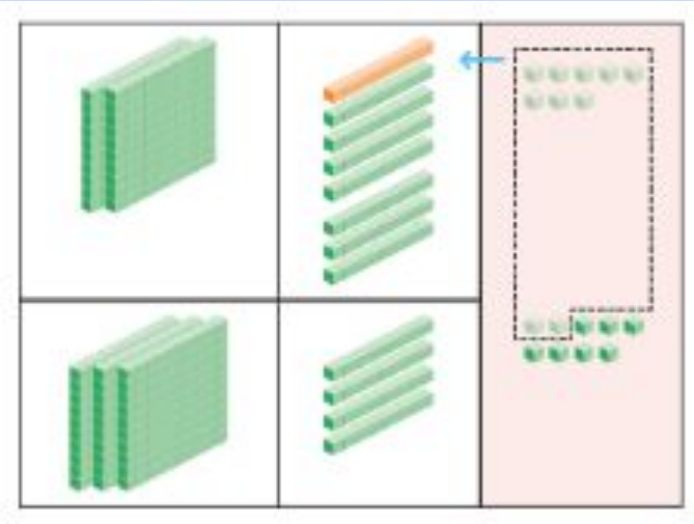
Column addition (with regrouping)

T	O
6	7
+ 2	4
1	1 (7 + 4)
+ 8	0 (60 + 20)
9	1



2	3	.	3	6	1
	9	.	0	8	0
5	9	.	7	7	0
+	1	.	3	0	0
9	3	.	5	1	1
2	1		2		

Column addition (with regrouping)



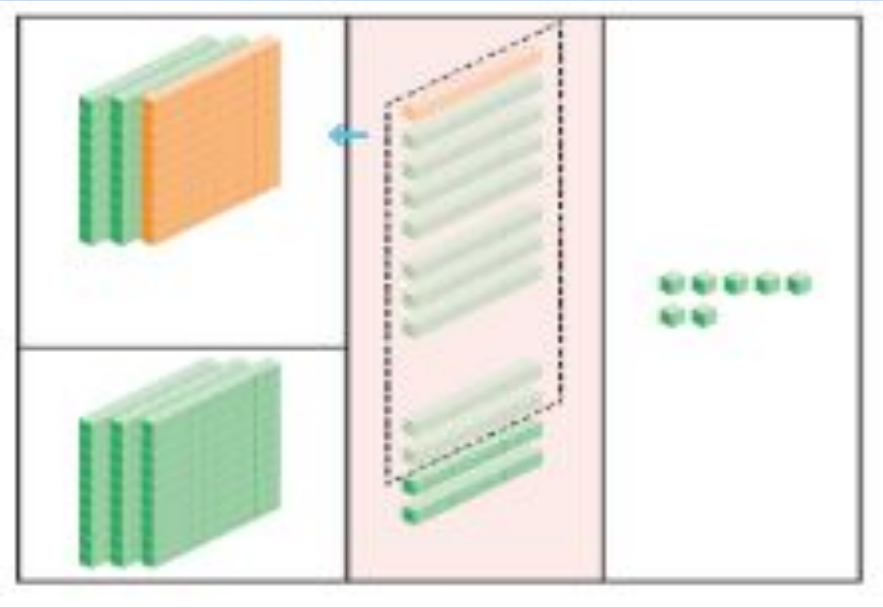
H	T	O
2	7	8
+ 3	4	9
		7
		1

Step 1: add the ones, exchange if necessary.

☐ ones + ☐ ones = ☐ ones

17 ones = ☐ ten and ☐ one

Column addition (with regrouping)



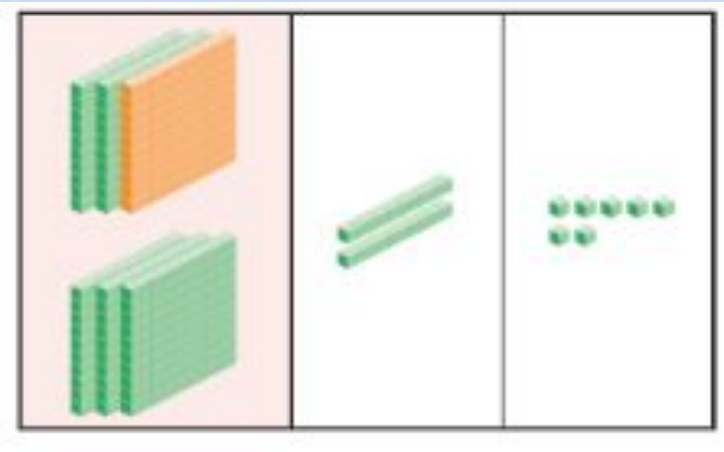
Step 2: add the tens, exchange if necessary.

H	T	O
	2	7 8
+	3	4 9
		2 7
	1	1

[ ] tens + [ ] tens + [ ] tens = [ ] tens

12 tens = [ ] hundred and [ ] tens

Column addition (with regrouping)

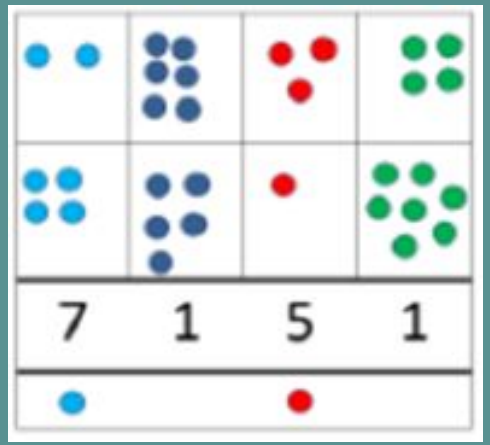


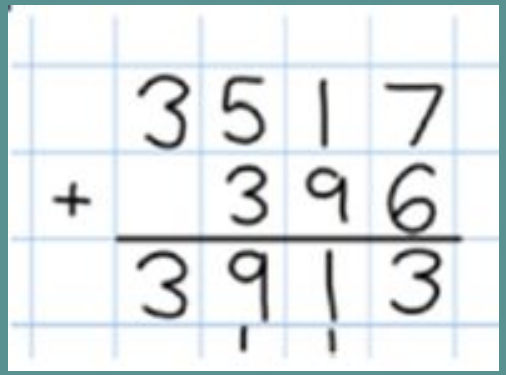
H	T	O
	2	7	8
+	3	4	9
	6	2	7
	1	1	

Step 3: add the hundreds, exchange if necessary.

☐ hundreds + ☐ hundreds + ☐ hundreds = ☐ hundreds

Column addition (with regrouping)





Math Game Monday

Greedy Pig

2nd to 4th Grade
Whole Class or Small Group Activity

Equipment

1 six-sided dice
Scrap paper, jotter pad or math book

How to Play

This is a game of chance and probability.

1. Children need a scrap piece of paper, jotter pad or math book and stand behind their chair with their jotter pad in front of them.
2. The teacher rolls the dice. Each game consists of one or more rolls of a dice, the teacher keeps rolling and calling out the numbers until a 6 is rolled. When a 6 is rolled, the game is over.
3. As the teacher rolls the dice, the children keep track of the running total on their jotter pad, adding the numbers called out after each roll. After each roll, children take the risk, will they stay standing up or will they bank their amount and sit down. When a 6 is rolled, all those children still standing up get a score of 0, those sitting down get to keep their total. The winner is the child who had previously sat down with the highest total.
4. All children could either start with zero each time, or add on from their total from the previous game.
5. As an extension of this lesson, children could roll a six-sided dice 50 times, looking at the chance of rolling different numbers or lead into a discussion of tree diagrams.

Variations

- Children could easily play this game in small groups with players taking turns rolling the dice.
- Place a limit on the number of games children play in a certain amount of time.