LEARNING AND FLOURISHING TOGETHER | PROUD TO BE PART OF PDET

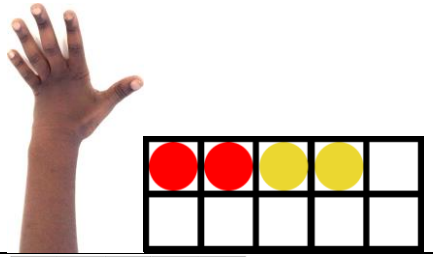
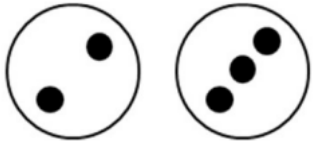
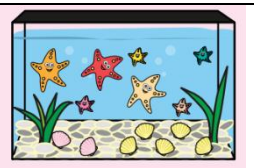
Calculation Policy

Addition

May 2024

LEARNING AND FLOURISHING TOGETHER | PROUD TO BE PART OF PDET

Addition:

EYFS:			
Vocabulary:	first, then, now, add, plus, altogether, total, part, whole	**Manipulatives & scaffolds:**	Fingers Five frames Ten frames Double sided counters Numicon Cubes Bead strings Part-whole model
Small step:	**Concrete:**	**Pictorial:**	**Abstract:**
Combining two groups	Children begin to combine 2 groups of objects to find how many there are altogether. Numicon 		How many ___ can you see? How many ___ can you see? How many can you see altogether?
1 more	 There are 7 altogether. 1 more than 6 is 7. 7 is 1 more than 6.	 There are 7 (starfish). 1 more than 7 is 8. 8 is 1 more thn 7.	There are ___ There are ___ altogether. ___ is 1 more than ___ 1 more than ___ is ___

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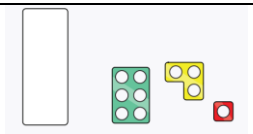
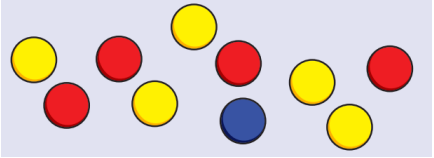
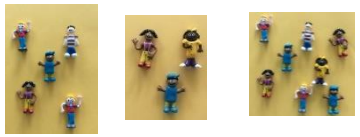
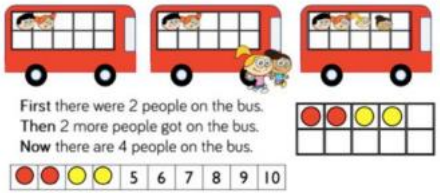
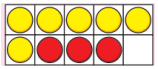
Combine two groups	 There are 3 here and 4 there. There are 7 altogether. 3 and 4 make 7.	 There are 4 dots and 2 dots. There are 6 altogether. 4 and 2 make 6.	There are ___ here and __ there. There are ___ altogether. ___ and ___ make ___
Bonds to 10 (2 parts)	 The whole is 10. 6 is a part and4 is a part. 6 and 4 are a bond to 10. If 6 is a part then the other part must be 4.	 The whole is 10 If 6 is a part then the other part must be 4. 6 and 4 are a bond to 10.	The whole is ___ ___ is a part and ___ is a part ___ and ___are a bond to 10 If ___ is a part, then the other part must be ___
Bonds to 10 (3 parts)	 Use 3 Numicon pieces to cover a 10 piece. The whole is 10. I can see that 10 is made up of 6 and 3 and 1.	 There are 10 counters, the whole is 10. I can see that 10 is made up of 5 and 4 and 1.	I can see that 10 is made up of ___ and ___ and ___.
Adding more	Use ‘first, then, now’ number stories to find the answer to the question “How many now?” by providing meaningful contexts 		First there were ___ Then ___ more were added. Now there are ___ There are ___ altogether

	First there were 5 people. Then there were 3 more. Now there are 8.		
How many did I add?	Provide children with 'first, then, now' number stories where the 'then' part is missing: "There were 6 children on the bus, then we don't know how many more got on, but now there are 8 children on the bus.  Represent the starting number with yellow counters and then add red counters until they reach the total amount. The number of red counters represents the number that has been added.		First there were ___ Now there are ___ ___ were added I added ___
Y1			
Vocabulary:	add, plus, altogether, total, part, whole, 2-digit number, sum, addition, more, and, makes, double	**Manipulatives & scaffolds:**	Ten frames Double sided counters Numicon Cubes Bead strings Part-whole model Bar model
Small step:	**Concrete:**	**Pictorial:**	**Abstract:**

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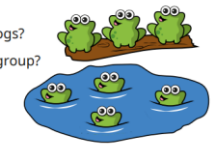
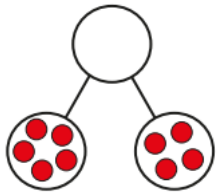
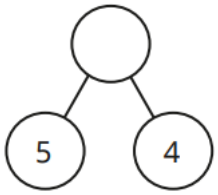
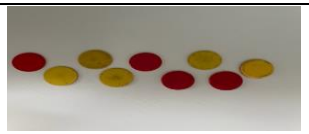
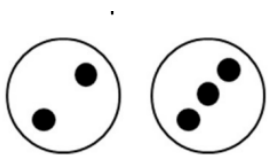
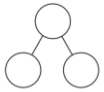
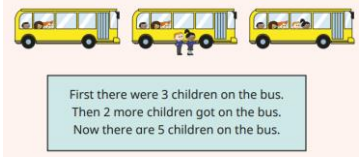
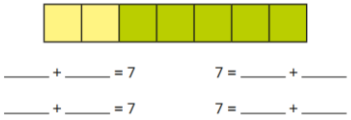
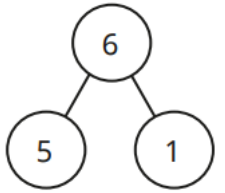
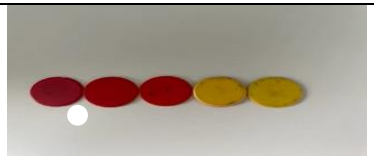
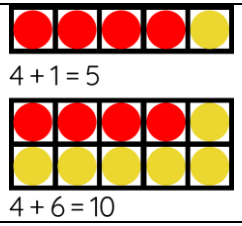
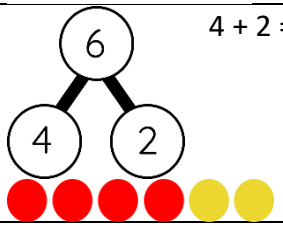
Understand part and whole relationships	Here are some frogs. ▸ Can you see two groups of frogs? ▸ How many frogs are in each group? ▸ Complete the sentences. _____ is a part. _____ is a part. The whole is _____ 	 __ is a part __ is a part The whole is __	 __ is a part __ is a part The whole is __
Write number sentences	 Here are some counters. Group the counters by colour. __ red counters plus __ yellow counters is equal to __ counters.	 2 + 3 = 5	 ____ + ____ = ____
Fact families – addition facts	 First there were 3 children on the bus. Then 2 more children got on the bus. Now there are 5 children on the bus.	 ____ + ____ = 7 ____ + ____ = 7 7 = ____ + ____ 7 = ____ + ____	 5 + 1 = 6 1 + 5 = 6 6 = 5 + 1 6 = 1 + 5
Number bonds within 10	 3 + 2 = 5	 4 + 1 = 5 4 + 6 = 10	 4 + 2 = 6

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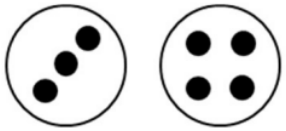
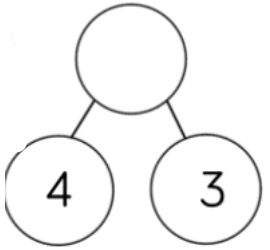
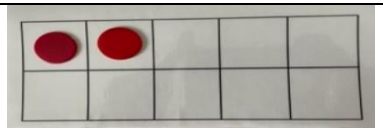
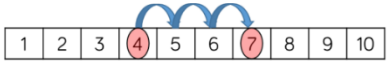
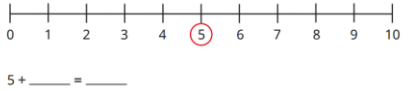
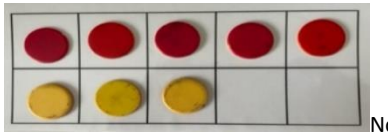
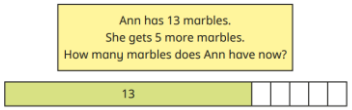
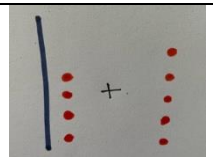
Add together	 4 + 3 = 7	 3 + 4 = 7	 4 + 3 = 7
Add more	 Put 2 counters in a tens frame. Now add 8 more counters. How many counters are there altogether?	4 + 3 = 	 5 + ____ = ____
Add by counting on within 20	 First  Then  Now First there were 5 counters Then I added 3 Now there are 8 counters		 9 + 6 = ____
Adding ones using number bonds		 14 + 2 =	12 + 4 =

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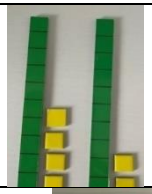
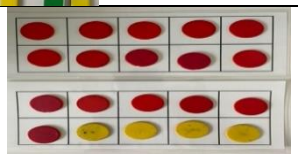
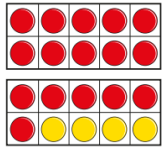
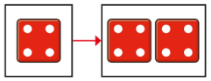
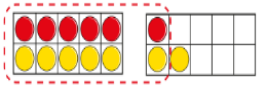
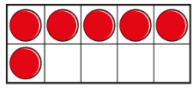
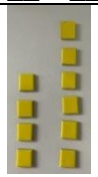
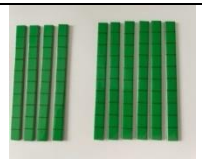
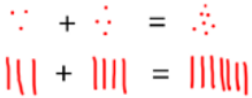
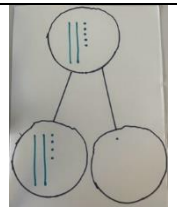
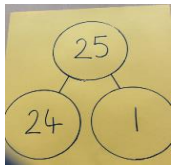
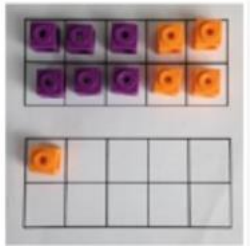
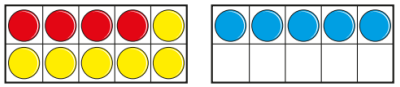
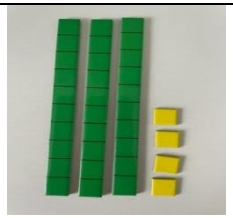
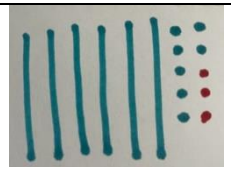
	 14 + 2 =		
Find and make number bonds to 20	 16 + 4 = 20	 4 + 16 = 20	20 = __ + __ 20 = __ + __
Doubles	 Double 7 is__	 Double 4 is __	Double __ is __
Near doubles	 6 + 7 = 6 + 6 + 1 = Double 6 + 1 =	 6 + 7 = double _____ plus _____	Use doubles to work out the near doubles: 4 + 5 = 6 + 7 = 8 + 7 =
Y2			
Vocabulary:	add, plus, altogether, total, part, whole, 2-digit number, sum, addition, more, and, makes, double, ones, tens, partition, bonds, commutative	**Manipulatives & scaffolds:**	Ten frames Double sided counters Numicon Cubes Base 10/Dienes Part-whole model Bar model Number line Place value charts

Small step:	Concrete:	Pictorial:	Abstract:
Bonds to 10	 __ + __ = 10	 5 + __ = 10	__ + __ = 10 10 = __ + __
Fact families – addition bonds within 20	 __ + __ = __ __ + __ = __ __ = __ + __ __ = __ + __	**As above**	__ + __ = __ __ + __ = __ __ = __ + __ __ = __ + __
Bonds to 100 (tens)	  4 = 6 = 10 40 + 60 = 100	 3 + 4 = 7 30 + 40 = 70	__ + __ = 100 100 = __ + __
Add ones	   24 + 1 = 25	 	46 + 1 = 46 + 2 = 46 + 3 =

Add by making 10	 6 + 5 = 10 + 1 = 11	Pictorial tens frame	7 + 4 = 11 *If I have seven, how many more do I need to make ten?* *How many more do I need to add?*
Add three 1-digit numbers	 7 + 2 + 3 =	 4 + 6 + 6 =	7 + 5 + 3 = 7 + 5 + 3 = 15 10
Add to the next 10	 The Base 10 shows 34 How many tens are there in 34? What is the multiple of 10 after 34? How many ones are there in 34? How many more ones do I need to add to get to the next multiple of 10? 34 + __ = __	 67 + __ = 70	45 + __ = 50 81 + __ = 90 32 + __ = 40

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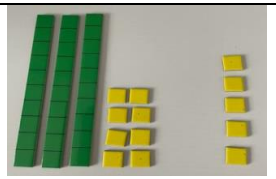
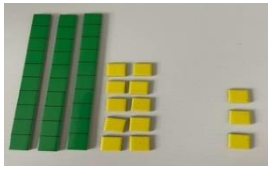
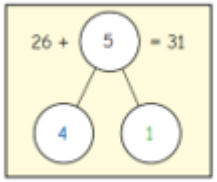
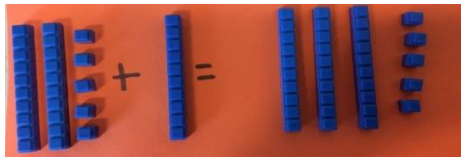
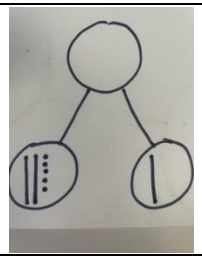
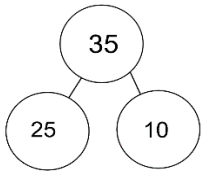
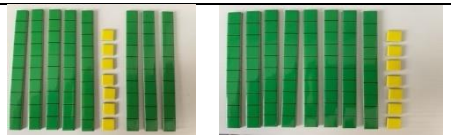
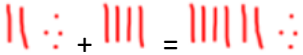
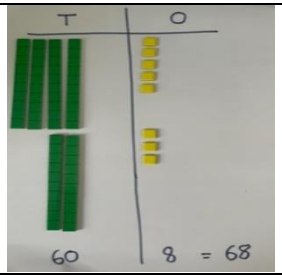
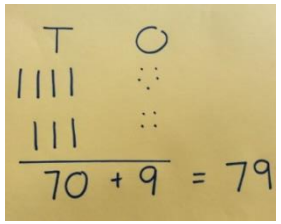
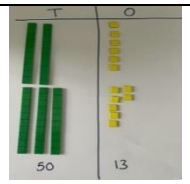
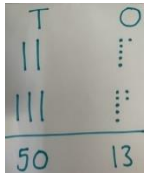
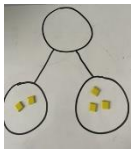
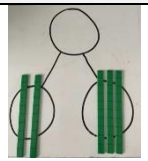
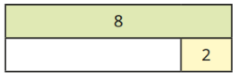
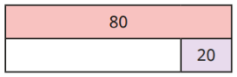
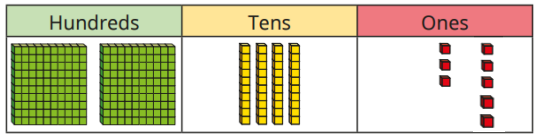
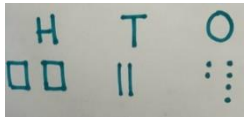
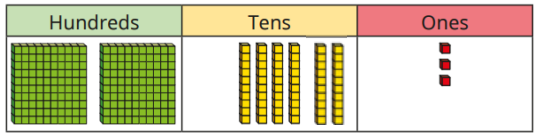
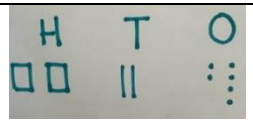
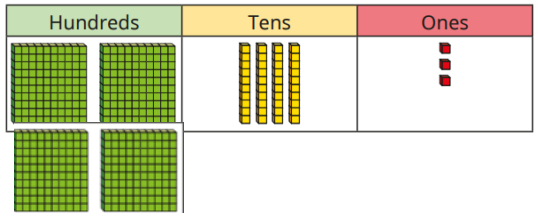
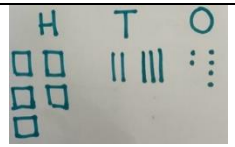
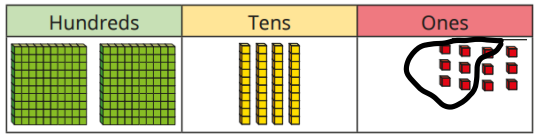
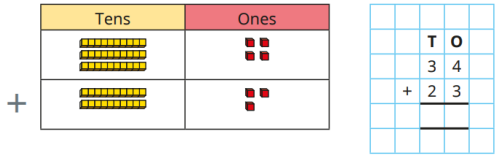
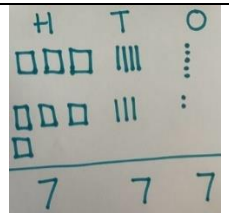
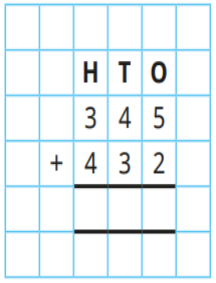
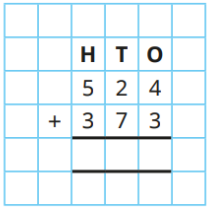
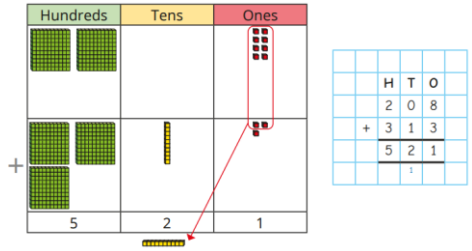
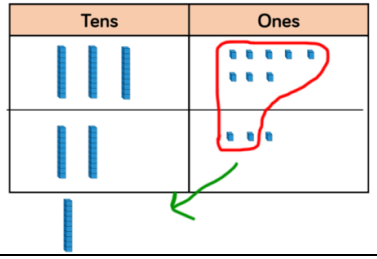
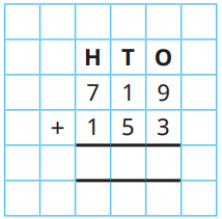
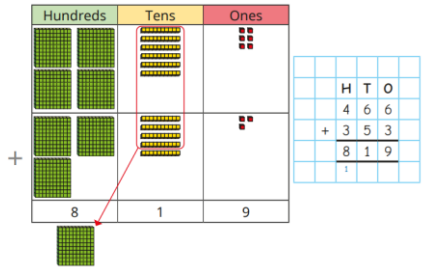
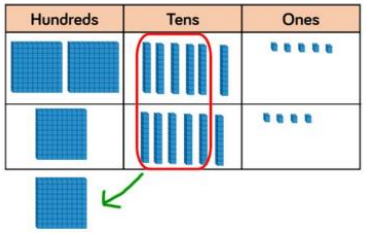
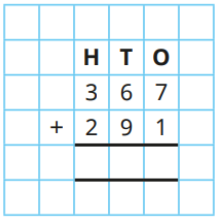
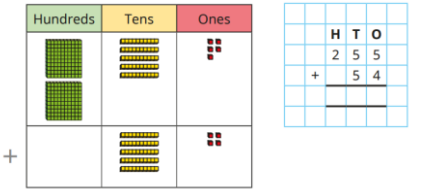
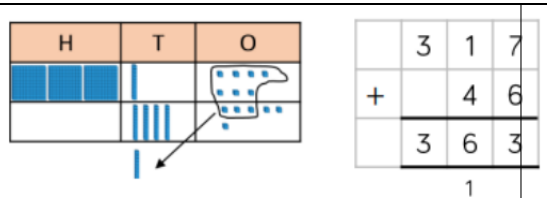
Add across a ten	  38 + 5 = 40 + 3		67 + 5 =
10 more	 25 + 10 = 35	 	25 + 10 = 35 10 + 25 = 35 35 = 25 + 10 35 = 10 + 25
Add 10s	 57 + 30 = 87	 24 + 40 = 64	23 + 10 54 + 40
Add two 2-digit numbers (not across a ten)		45 + 34 = 	52 + 14 23 + 31

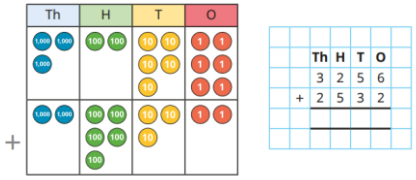
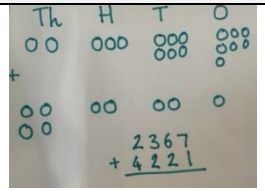
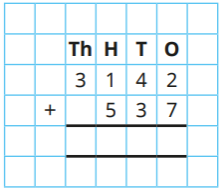
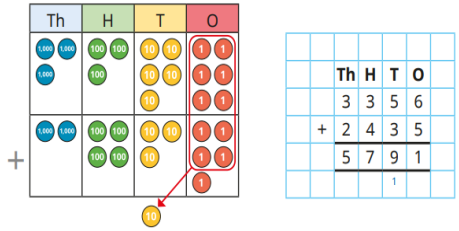
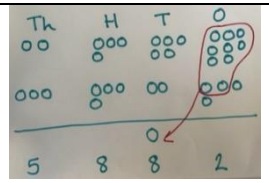
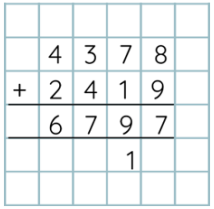
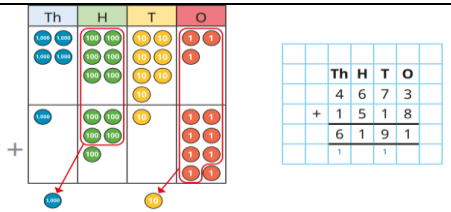
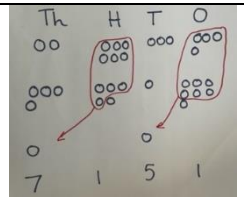
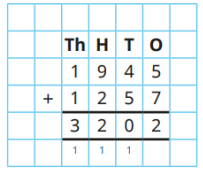
	 26 + 37 = 20 + 30 = 50 6 + 7 = 13 50 + 13 = 63	26 + 37 =  20 + 30 = 50 6 + 7 = 13 50 + 13 = 63	26 + 37 46 + 27 = 17 + 33 =
Y3			
Vocabulary:	add, plus, altogether, total, part, whole, 2-digit number, sum, addition, more, and, makes, double, ones, tens, partition, bonds, exchange, regroup, hundreds	**Manipulatives & scaffolds:**	Ten frames Double sided counters Numicon Cubes Base 10/Dienes Part-whole model Bar model Number line Place value charts Place value counters
Small step:	**Concrete:**	**Pictorial:**	**Abstract:**
Apply number bonds	  2 + 3 = 5 20 + 30 = 50	  __ + 2 = 8 __ + 20 = 80	2 + __ = 5 20 + __ = 50
Add ones			354 + 4 215 + 3 461 + 8

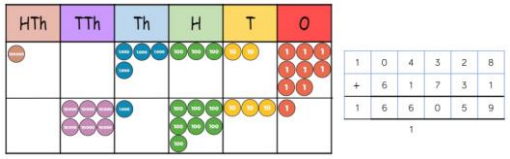
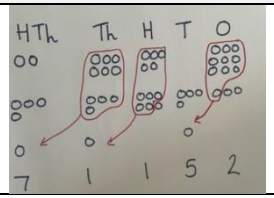
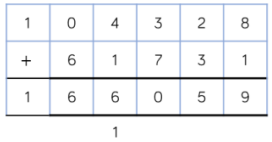
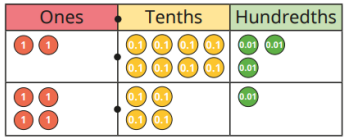
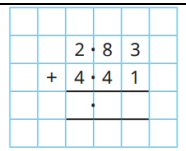
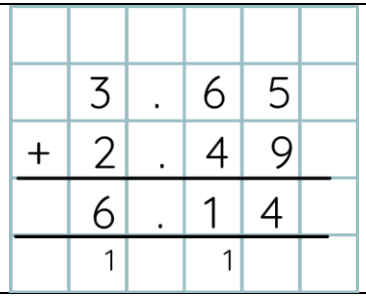
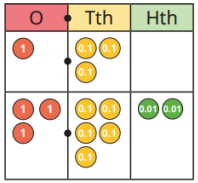
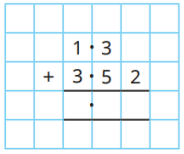
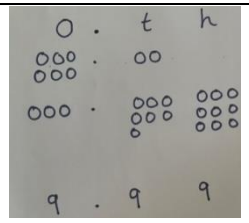
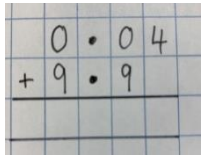
	243 + 5 =	222 + 4 =	
Add tens	 243 + 20 =	 226 + 30 =	546 + 30 743 + 50 229 + 60
Add hundreds	 243 + 200 =	 256 + 300 =	378 + 400 579 + 300 285 + 600
Add 1s across a ten	 243 + 9 = 243 + 7 = 250 + 2 = 252	As above	248 + 9
Add 10s across a hundred	As above	As above	695 + 80 476 + 60

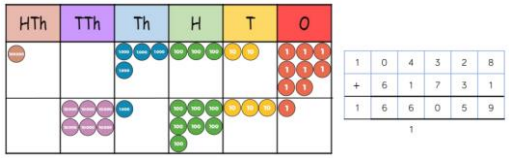
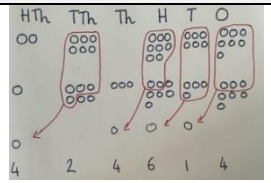
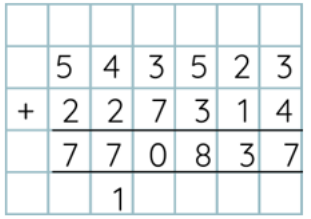
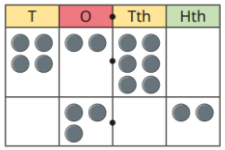
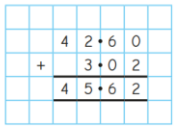
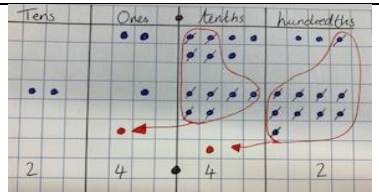
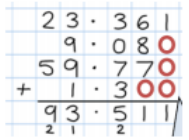
LEARNING AND FLOURISHING TOGETHER

PROUD TO BE PART OF PDET

Add two numbers (no exchange)		 	
Add two numbers (across a ten)		 38 + 23 = 61 (1)	
Add two numbers (across a hundred)		 265 + 164 = 429 (1)	
Add 2-digit and 3-digit numbers			537 + 82 =
Y4			
Vocabulary:	add, plus, altogether, total, part, whole, 2-digit number, sum, addition, more, and, makes,	**Manipulatives & scaffolds:**	Ten frames Double sided counters

	double, ones, tens, partition, bonds, exchange, regroup, hundreds, thousands		Numicon Cubes Base 10/Dienes Part-whole model Bar model Number line Place value charts Place value counters
Small step:	**Concrete:**	**Pictorial:**	**Abstract:**
Add up to two 4-digit numbers – no exchange			
Add two 4-digit numbers – one exchange		 2458 + 3424	
Add two 4-digit numbers – more than one exchange		 2634 + 4517	
Y5			
Vocabulary:	add, plus, altogether, total, part, whole, 2-digit number, sum, addition, more, and, makes,	**Manipulatives & scaffolds:**	Ten frames Double sided counters

	double, ones, tens, partition, bonds, exchange, regroup, hundreds, thousands, decimals, tenths, hundredths, thousandths, decimal point		Numicon Cubes Base 10/Dienes Part-whole model Bar model Number line Place value charts Place value counters
Small step:	**Concrete:**	**Pictorial:**	**Abstract:**
Add whole numbers with more than four digits		 26509 + 44643	
Add decimals across one	Place value	Place value grids	0.74 + 0.42
Add decimals with the same number of decimal places	 	Place value	
Add decimals with a different number of decimal places	 	 6.2 + 3.79	 

Y6			
Vocabulary:	add, plus, altogether, total, part, whole, 2-digit number, sum, addition, more, and, makes, double, ones, tens, partition, bonds, exchange, regroup, hundreds, thousands, decimals, tenths, hundredths, thousandths, decimal point, integer	**Manipulatives & scaffolds:**	Ten frames Double sided counters Numicon Cubes Base 10/Dienes Part-whole model Bar model Number line Place value charts Place value counters
Small step:	**Concrete:**	**Pictorial:**	**Abstract:**
Add integers		 260867 + 163747	
Add decimals	 	 1.73 + 21.69 =	Insert zeros for place holders. 

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