Addition Prior Learning Assessment Question 1:

Objective: I use my knowledge of place value and partitioning to mentally add.

NPV1: add and subtract numbers with up to 4 digits

Assessment Question 1:

Prior Learning:

Addition + Subtraction

Question 1:
I can use partitioning and place value to mentally add

I feel

Add these amounts together:

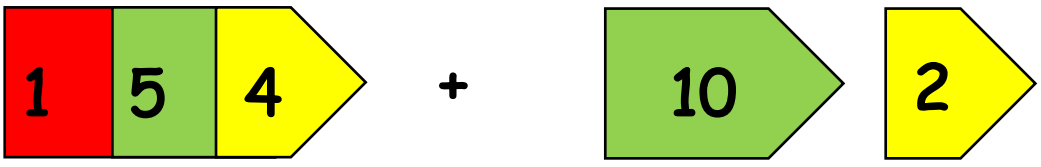
105 + 10 =		578 + 40 =	
264 + 30 =		219 + 72 =	
245 + 42=		366 + 122 =	
302 + 170 =		234 + 95 =	

Teacher Input Ideas:

Recap with the children the value of different amounts. Place 3456 on the board and encourage the children to say the value of each digit, such as: three thousand, four hundred , fifty and six.

Once the children show understanding of the value of amounts, introduce adding amounts together using knowledge of place value. We can partition these to help us to add different amounts.

For example: place 154 on the board. How can I add 12? What do I know about 12? I can add the ten first then the 2. If children find this hard to see, then place value arrow cards can be used to help the children see how to add different parts. Alternatively, objects grouped in tens, hundreds and ones or a place value chart may be useful.



Encourage the children to build on learning from place value and to partitioning different amounts to add.

Repeat with other amounts such as:

35 + 124 = 110 + 345 = 231 + 103 =

hundreds	tens	ones
1	2	4
	3	0
		5

124 + 30 = 154 and then plus 5 = 159

Practice Activities

Purple Practice: Most suited for children who show difficulty in answering Question 1 of the prior learning assessment and need to further develop their understanding of the value of digits.

Practical: provide the children with place value arrow cards to help the children to partition amounts to add to 2 and 3 digit numbers. Provide the children with sums where the amounts can be easily partitioned. Ensure the children know the value of each digit and are able to suggest how an amount can be partitioned into the different values. Some children may partition both amounts when adding or some may just partition one amount to add on .

For example: 60 and 5 + 10 and 2 = 60+10 =70 and 5+2 = 7 or 65 + 10 = 75 + 2 = 77. Encourage the children to look at the different strategies and talk about which is most efficient for them and why.

Suggested sums:

65 + 12 165 + 25 267 + 15 67 + 22 346+ 21 560 + 115

525 + 170 671+ 24 120 + 116

Green Practice: Most suited for children who show some accuracy in Question 1 and will benefit from developing mental addition strategies through using partitioning.

The children are presented with blocks to add amounts. The children should use their knowledge of partitioning to help them to add mentally, but may need to make jottings to help them. The children are provided with 2, 3 and 4 digit amounts. If children are showing difficulty, the children can write each amount on a place value chart and add the other amount by partitioning the hundreds, tens and ones in steps, such as 345 + 120 = 345 + 100 = 445 + 20 = 465.

Yellow Practice: Most suited for children who are ready to use partitioning with amounts that will make a new ten, hundred or thousand when added.

As above, the children are presented with amounts to add together mentally using their knowledge of the value of each digit and partitioning. The sums that the children are presented with include calculations where a new ten, hundred or thousand is created when the amounts are added.

Mastery : For this mastery task the children are provided with three different examples of how amounts can be partitioned to help with mental addition. Encourage the children to look carefully at each way and explore adding the amounts as suggested. Once the children have explored the three different ways of partitioning ask the children to explain which method they preferred and why. Some children will be able to use all three ways as some children may prefer just one. For a further challenge, some children may suggest other ways to partition the amounts to help them.

Answers :

Green:

1) 257 2) 146 3) 475

4) 1596 5) 746 6) 1586

Yellow:

1) 2304 2) 181 3) 127

4) 821 5) 605 6) 1319

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Green Practice

LO: I can use partitioning to add mentally.

Look at each of the sums below. Use your knowledge of place value to help you to partition the amounts in each sum.

1) 234 + 23 =

=

2) 115 + 31 =

=

3) 64 + 411 =

=

4) 1092 + 504 =

=

5) 530 + 216 =

=

6) 1256 + 330 =

=

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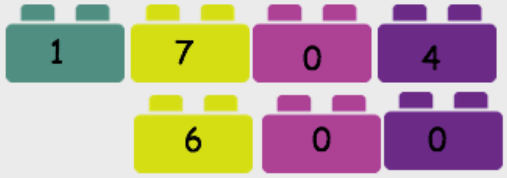
Yellow Practice

LO: I can use partitioning to add mentally.

Look at each of the sums below. Use your knowledge of place value to help you to partition the amounts in each sum.

1) 1704 + 600 = 

= 2304

2) 145 + 36 =

=

3) 64 + 63 =

=

4) 809 + 12 =

=

5) 530 + 75 =

=

6) 1256 + 63 =

=

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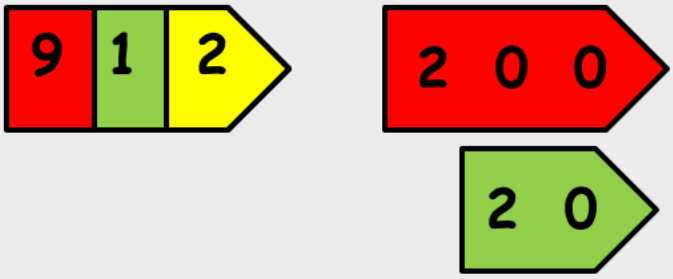
Mastery

Reasoning

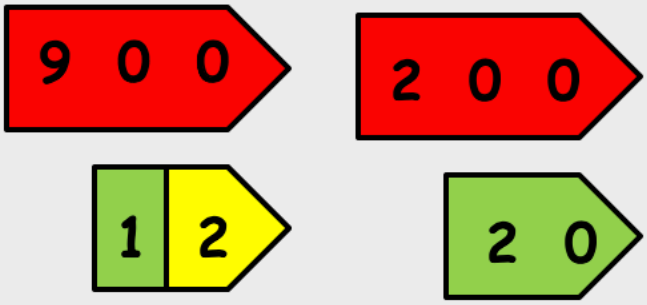
Look at how each child has partitioned the amounts to mentally add:

912 + 220

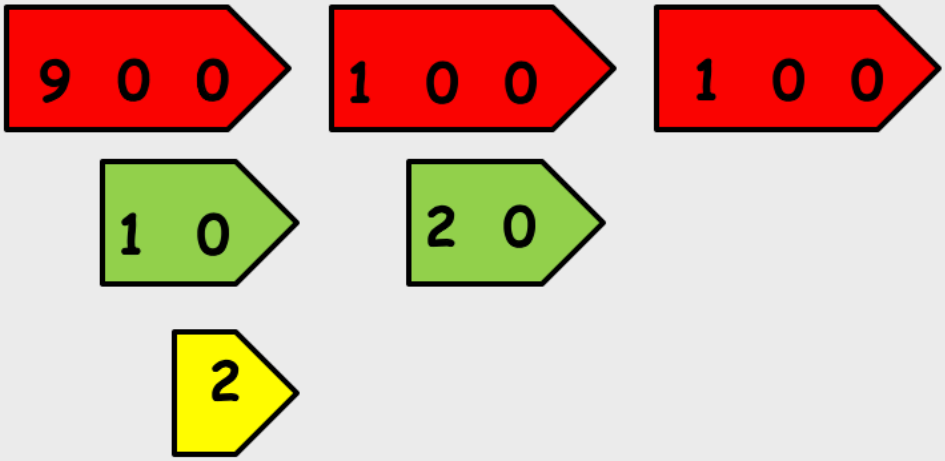
Sonhil:



Zahra:



Grace:



Explore the way each child has chosen and explain which one you would use and why?

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