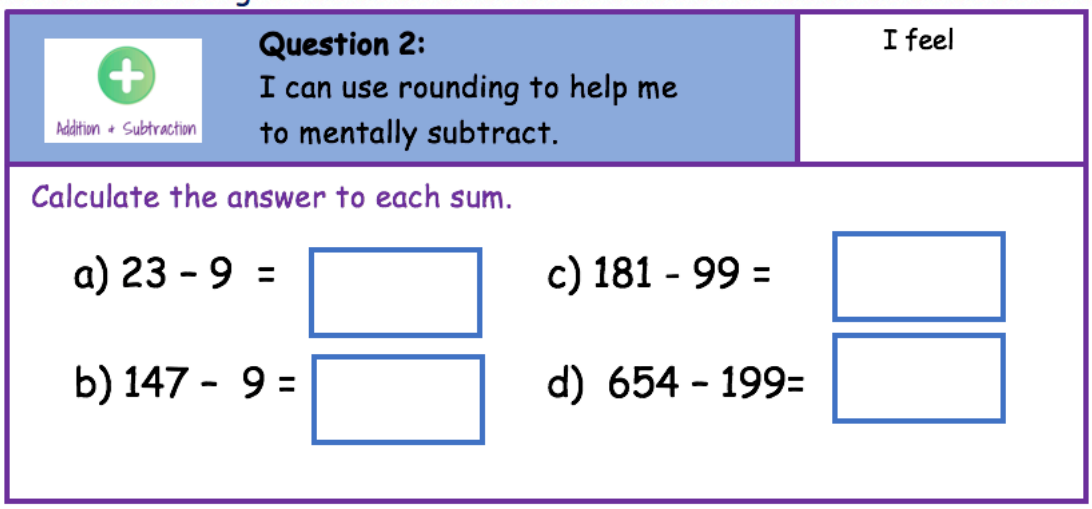
Addition Prior Learning Assessment Question 2:

Objective: I use rounding to perform subtraction calculations mentally.

NC NAS: 1: add and subtract numbers with up to 4 digits

Assessment Question 2:

Prior Learning:



Teacher Input Ideas:

Display objects that are grouped in hundreds, tens and ones. Show the amount 67 using 6 packs of ten sweets and 7 individual sweets.

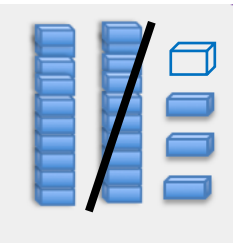
Model to the children to take away 9 we can take a pack of ten sweets first as this is a quicker way. Discuss why this is a quicker strategy than counting back in ones for 9. Model using the 67 sweets and take away a pack of ten so now there are 57 sweets. I don't want the whole pack, I only want nine. So open the packet and take the top sweet. I can keep the nine here and I will give the one sweet back. I am adding it back to the group so I have taken away ten and then added one sweet back to help me to do it quickly.

So the answer is 58 sweets. 67- 10 = 57 then + 1

Repeat again with other amounts show practically taking away a pack of ten quickly and then giving one back as we only want to subtract 9.

Now encourage the children to apply this to subtracting 99 using the idea of subtracting 100 first.

You can also model this alongside the visual resources as provided in the purple and green activity. This may help the children to understand why we can take ten away and then add one.



Take ten away and then give one back as we only wanted to subtract nine and not ten sweets. You can model taking ten away by drawing a line through the ten and then draw one more sweet on to units.

23 – 9 = 14

Practice Activities

Purple Practice: Most suited for children who made errors in Q2 a and b of the prior learning assessment or show a lack of mental strategies for subtraction.

For this activity the children are provided with images of 2 and 3 digit amounts presented in hundreds, tens and ones . The children are to explore subtracting a block of ten first to calculate the answer. They then should understand that they need to give one back as they only want to subtract 9 and not 10. They should then be encouraged to add one to the units or draw one more. If children are demonstrating difficulty, they can use sweets grouped in tens and hundreds to practically subtract ten and then add one.

Green Practice: Most suited for children who made errors in Q2 c and d of the prior learning assessment or show a lack of mental strategies for subtraction.

For this activity the children are provided with images of 2 and 3 digit amounts presented in hundreds, tens and ones . The children are to explore subtracting a block of hundred first to calculate the answer. They then should understand that they need to give one back as they only want to subtract 99 and not 100. They should then be encouraged to add one to the units or draw one more. If children are demonstrating difficulty, they can use sweets grouped in tens and hundreds to practically subtract a hundred and then add one.

Yellow Practice: Most suited for children who demonstrate understanding of how subtracting 10 or 100 can help them to subtract 9 and 99.

For this activity the children are encouraged to use rounding to subtract different 2 and 3 digit amounts. The children are provided with a variety of sums and they are to use rounding to ten and hundred to subtract amounts such as 9, 19, 99, 199 to help them to work out the answers to the sums. The images have been taken away for this activity and the children should begin to demonstrate confidence in subtracting these amounts mentally.

Mastery: Practical and Verbal Reasoning

Encourage the children to make presentations or posters that can be shared with the class or others of their learning about using rounding to subtract mentally. Encourage the children to think of examples they can use, the equipment or resources they may want to use to help with modelling and the vocabulary to explain why rounding can be used to help with subtracting numbers ending in 9.

Key questions:

- How can rounding be used to subtract 9 quickly?
- How does it work? Why?
- Can you give any examples to share with others?
- Will all children be able to understand what you are showing?
- What key words are you going to use?

Answers:

Purple:

a) 14	b) 25	c) 27
d) 35	e)59	f)113
g)142	h)111	i)96

Green:

Sheet 1 a) 157	b) 245	c) 383	d) 301
Sheet 2 e) 531	f) 470	g) 773	

yellow:

53- 9 = 44	87- 9 = 78
123- 9 = 114	156 - 19 = 137
267- 99 = 168	194 - 99 = 95
560 - 90 =470	656 - 99 = 557
380 - 29 = 351	564 - 9 = 555
876 - 199 =677	670 - 199 =471

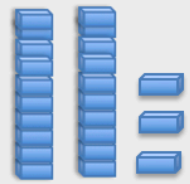
BRICKWORK Mathematics

Purple Activity

LO: I can subtract ten to help subtract 9 mentally.

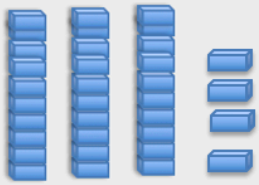
These sweets are organised in groups of hundred, ten and one. Explore subtracting 9 by taking away a group of ten first.

a)



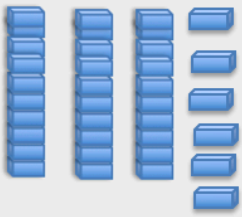
23 – 9 =

b)



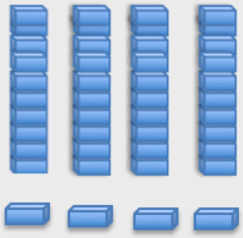
34 – 9 =

c)



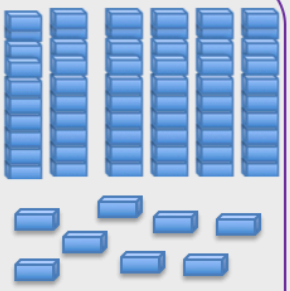
36 – 9 =

d)



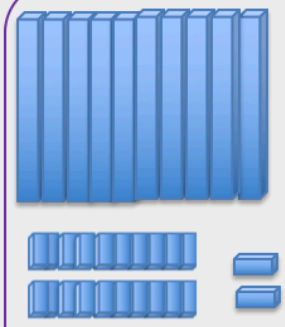
44 – 9 =

e)



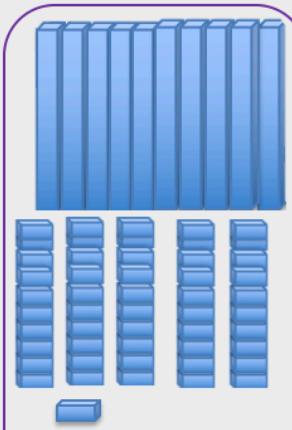
68 – 9 =

f)



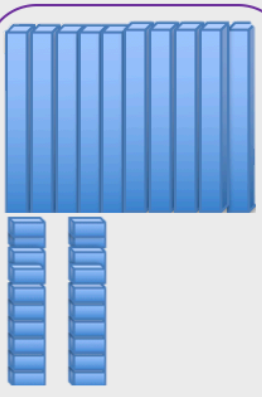
122 – 9 =

g)



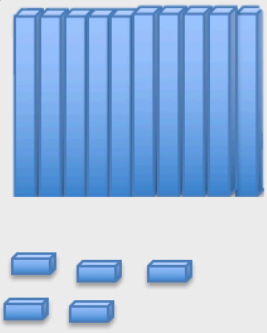
151 – 9 =

h)



120 – 9 =

i)



105 – 9 =

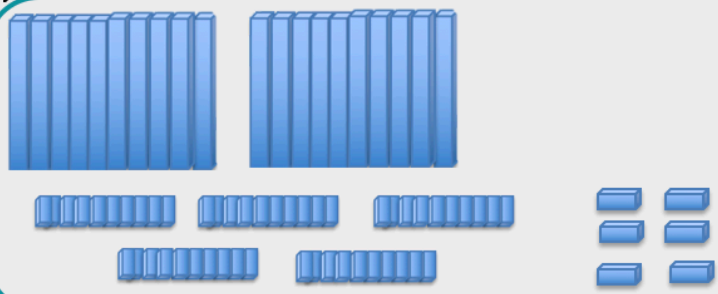
BRICKWORK Mathematics

Green Activity

LO: I can subtract hundred to help subtract 99 mentally.

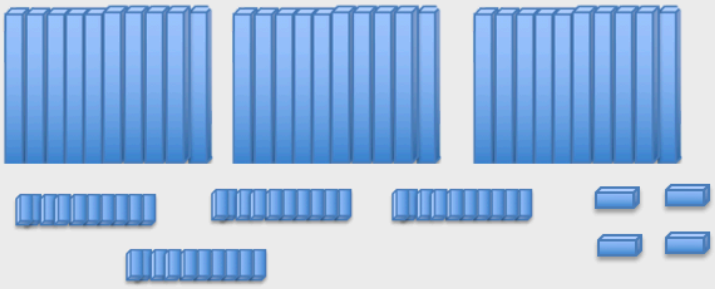
1) These sweets are organised in groups of hundred, ten and one.
Explore subtracting 99 by taking away a group of hundred first .

a)



256 - 99 =

b)



344 - 99 =

c)

482 - 99 =

d)

400 - 99 =

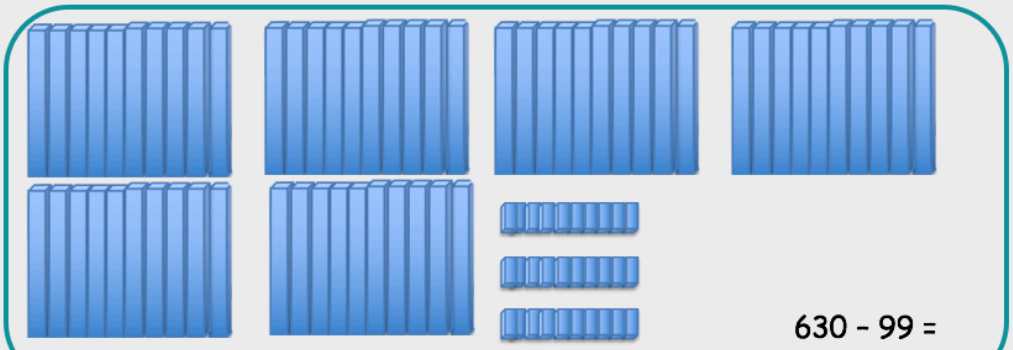
BRICKWORK Mathematics

Green Activity

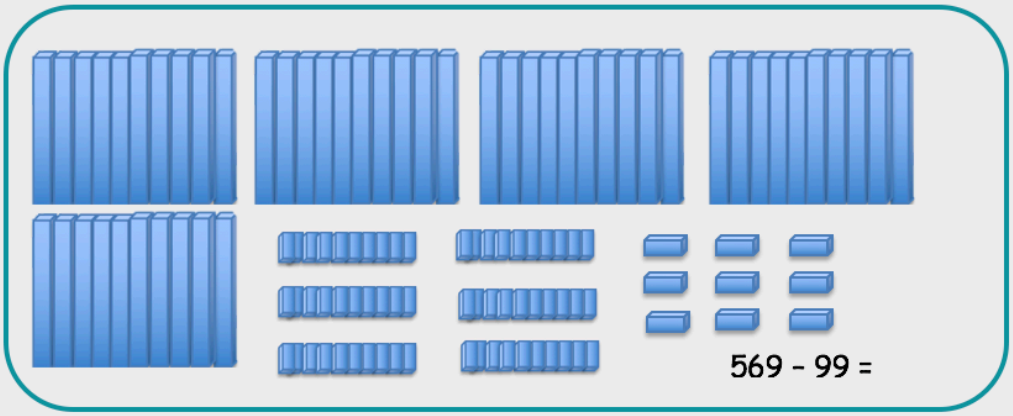
LO: I can subtract hundred to subtract 99 mentally.

1) These sweets are organised in groups of hundred, ten and one.
Explore subtracting 99 by taking away a group of hundred first .

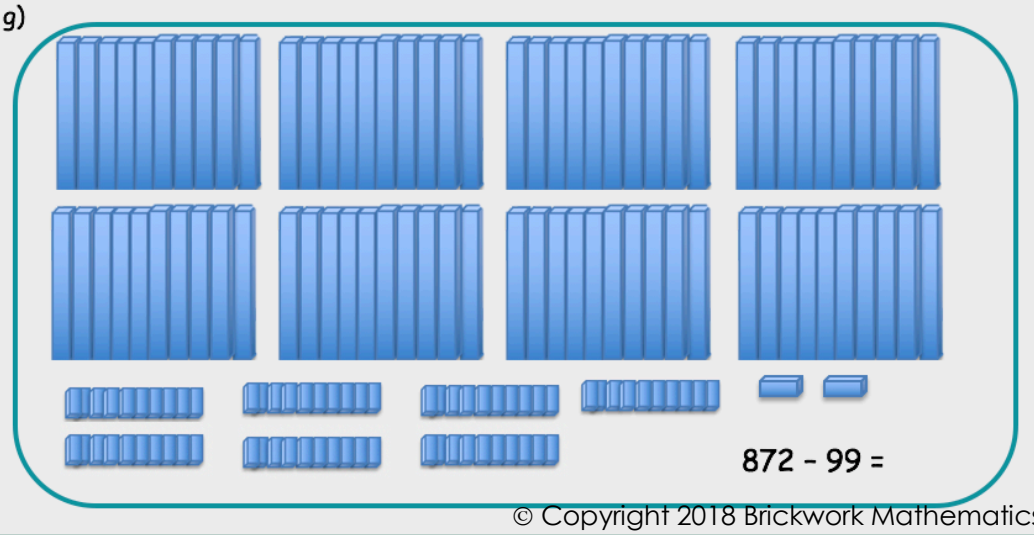
e)



f)



g)



BRICKWORK Mathematics

Yellow Activity

LO: I use rounding to help me to mentally subtract.

53- 9 =

87- 9 =

123- 9 =

156 - 19 =

267- 99 =

194 - 99 =

560 - 90 =

656 - 99 =

380 - 29 =

564 - 9 =

876 - 199 =

670 - 199 =