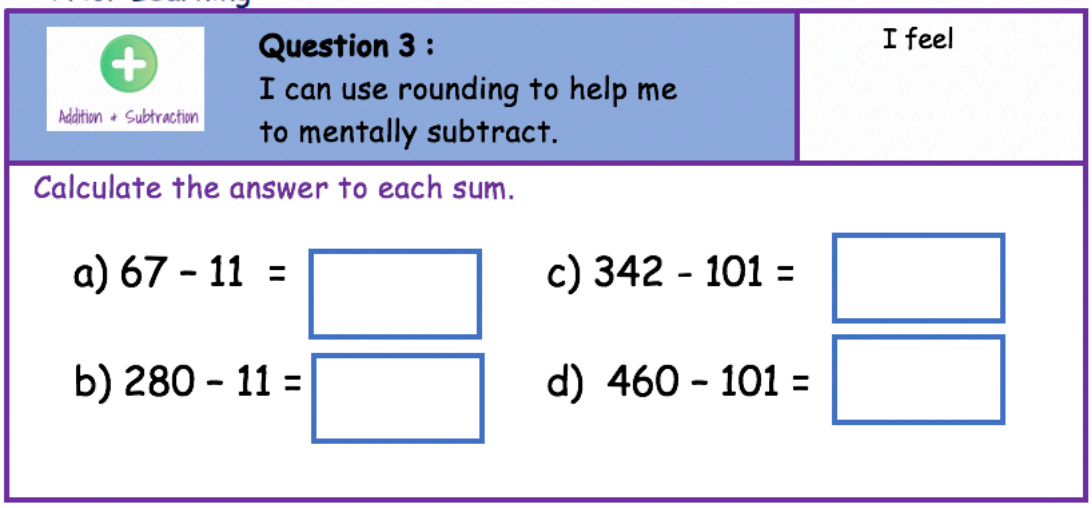
Addition Prior Learning Assessment Question 3:
Objective: I use rounding to help mentally subtract.

NC NAS 1: add and subtract numbers with up to 4 digits using the formal written methods of columnar addition and subtraction where appropriate.

Assessment Question:

Prior Learning:



Teacher Input Ideas:

(Starter) Play rounding games. Display numbers around the classroom and children to round to the nearest 10, 100 and 1000. This to remind the children of what rounding is and to apply previously taught skills from their learning of place value.

Recap with the children strategies to subtract 9 and 99 quickly. Display these sums for the children to explain how they can work out the answers quickly: 78-9 and 506- 99. In partners, provide the children time to explain how and why they can use their knowledge of subtracting ten and hundred. If the children need to use equipment grouped in hundreds, tens and ones to help to explain ensure these are provided.

Now display 56- 11. Ask the children to suggest how they would subtract this quickly. Is it easier to count back or count on? What can be subtracted quickly? How do you know this? Why does this work?

Now explore 267- 101, 109- 11 621-201.

You may want to model using place value equipment or images to help the children to understand why we can take away ten first and then one.

Practice Activities

Purple Practice: Most suited for children who made errors in Q3 a and b of the prior learning assessment or show a lack of different mental strategies.

For this activity the children are provided with images of 2 and 3 digits amounts presented in hundreds, tens and ones . The children are to explore subtracting a block of ten first to calculate the answer. They should then be encouraged to subtract a one. The children could cross these off on the images to help them to calculate or if children are demonstrating difficulty, they can use sweets grouped in tens and hundreds to practically subtract ten and then one.

Green Practice: Most suited for children who made errors with Questions 3 c and d or need to further explore the use of rounding as a mental subtract method for subtracting 101 etc.

For this activity the children are provided with images of 2 and 3 digits amounts presented in hundreds, tens and ones . The children are to explore subtracting a block of hundred first to calculate the answer. They should then be encouraged to subtract a one to subtract 101 from different amounts. The children can cross these off on the images to help them to calculate or if children are demonstrating difficulty they can use sweets grouped in tens and hundreds to practically subtract hundred and then one.

Yellow Practice: most suited for children who demonstrate some understanding of rounding to help with calculating and require less visual and practical support.

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 their knowledge of rounding to ten and hundred to subtract amounts such as 11, 21, 101, 201 to help them to work out the answer.

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 1.

Key questions:

- How can rounding be used to subtract 1 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) 22 b) 17 c) 25

d) 34 e) 49 f) 111

g) 140 h) 109 i) 94

Green:

Page 1 a) 145 b) 241 c) 383 d)299

Page 2: e) 529 f) 468 g) 774

Yellow:

28 - 11 = 17	45 - 11 = 34
91- 11 = 80	145 - 11= 134
167- 21 = 146	378 - 21 = 357
298- 101 = 197	500 - 101 = 399
678 - 110 = 568	891 - 101 =790
876 - 201 =675	470 - 11 = 459

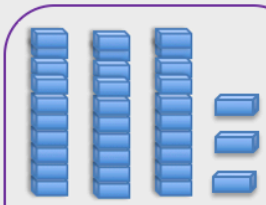
BRICKWORK Mathematics

Purple Activity

LO: I can subtract ten to help me to subtract 11 mentally.

These sweets are organised in groups of hundred, ten and one. Explore subtracting 11 by taking away a group of ten first and then one.

a)

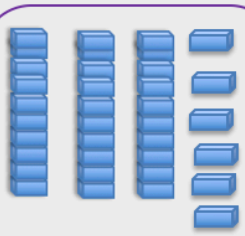


33 – 11 =

b)

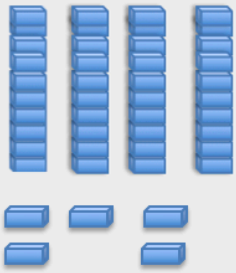
28 – 11 =

c)



36 – 11 =

d)

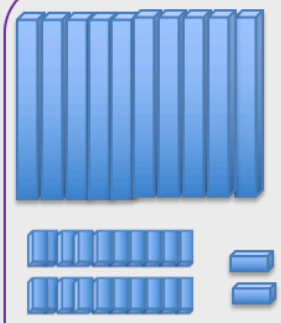


45 – 11 =

e)

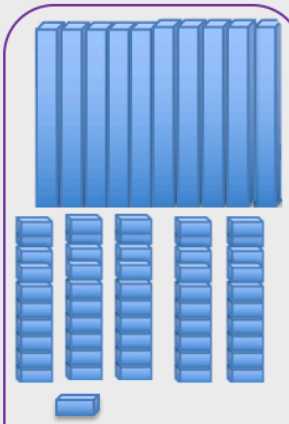
60 – 11 =

f)



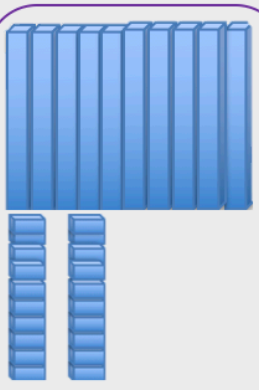
122 – 11 =

g)



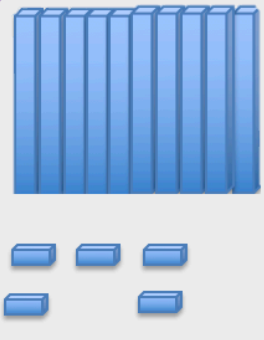
151 – 11 =

h)



120 – 11 =

i)



105 – 11 =

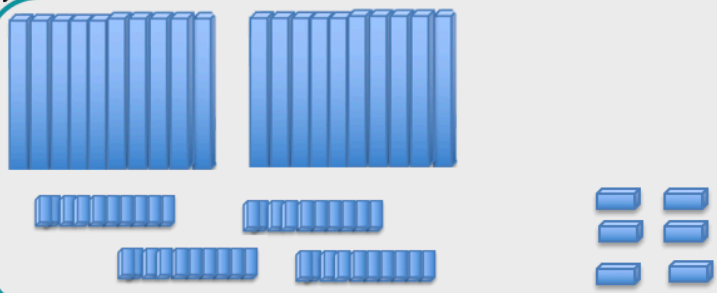
BRICKWORK Mathematics

Green Activity

LO: I can subtract hundred to help me to subtract 101 mentally.

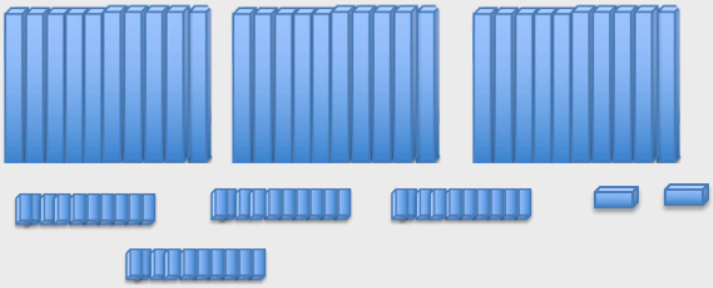
1) These sweets are organised in groups of hundred, ten and one.
Explore subtracting 101 by taking away a group of hundred first .

a)



246 – 101 =

b)



342 – 101 =

c)

484 – 101 =

d)

400 – 101 =

BRICKWORK Mathematics

Green Activity

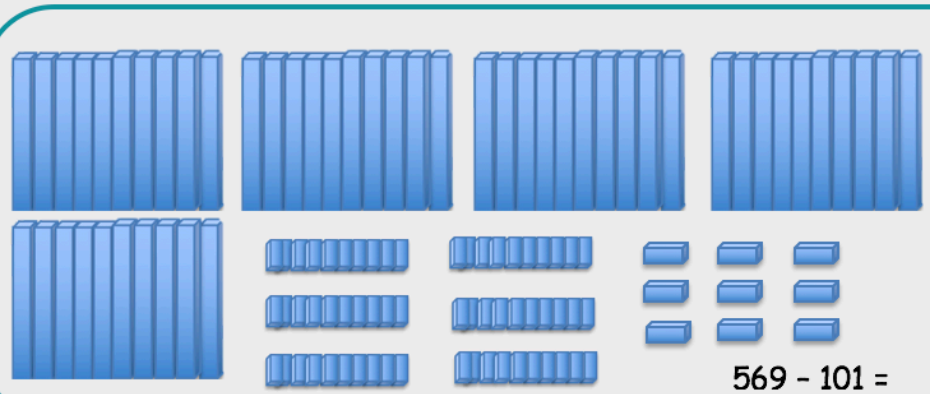
LO: I can subtract hundred to help me to subtract 101 mentally.

1) These sweets are organised in groups of hundred, ten and one.
Explore subtracting 101 by taking away a group of hundred first .

e)

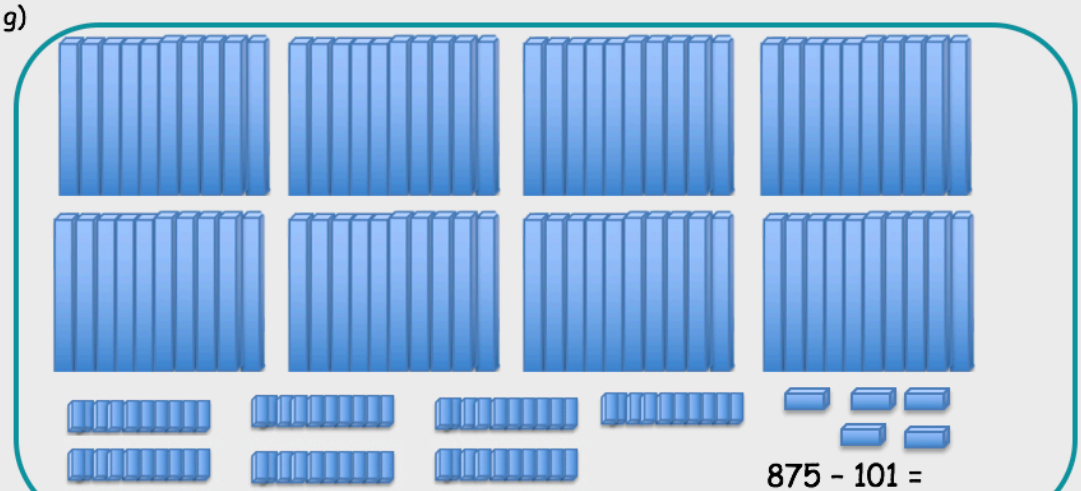
630 – 101 =

f)



569 – 101 =

g)



875 – 101 =

BRICKWORK Mathematics

Yellow Activity

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

28 - 11 =

45 - 11 =

91- 11 =

145 - 11 =

167- 21 =

378 - 21 =

298- 101 =

500 - 101 =

678 - 110 =

891 - 101 =

876 - 201 =

470 - 11 =