Subtraction Prior Learning Assessment Question 3:

Objective: I can subtract hundreds from three digit numbers.

I am beginning to use my knowledge of partitioning to count back for subtraction

NAS 1: add and subtract numbers mentally, including:
a three-digit number and hundreds

Assessment Question 3:

Prior Learning:

123
Number + Place Value

Question 3:
I can subtract hundreds from a 3 digit number.

I feel

Work out the answer to these subtraction sums:

a) 134 - 100 = ☐

b) 305 - 100 = ☐

c) 290 - 200= ☐

d) 345- 200 = ☐

e) 525 - 110 = ☐

f) 356 – 220 = ☐

Input ideas:

- Recap with the children what happens when a ten or one is subtracted from a 3 digit number. Discuss what happens to the tens and the units. Why? When does another column change too? Can you explain why? Can you think of a sum where this will happen? Pass this sum to a friend to try. Have they answered it correctly? How do you know? If we subtract one hundred from a number, which column will change?
- Place a number in the middle of a class circle. Give each child a card with either a one, ten or hundred on. You may also want to include numbers on the cards with multiples of one, ten or hundred. Children to hold up their card and subtract the amount as they move around the circle.
- Model how to subtract hundred and multiples of hundred from 2 and 3 digit amounts. Then move this learning on to using partitioning to mentally subtract amounts such as 256 – 110 = 146.

Practice Activities

Purple Practice: Most suited for children who show errors in questions 3a, b, c and d of the prior learning assessment.

Practical: Set up a shop for buying ribbon or tape .Ensure the children have different reels or lengths of paper /ribbon measured in cm set up in the shop. The children are to take it in turns to be the shop keeper who measures the tape and the customer who asks for 1m (100cm) or 2m (200cm) lengths. You may want to make labels for the lengths so that the amounts are easy to read to help the children to subtract 100 and 200 easily. Or if you feel that children are able to apply skills of measuring, the children could measure the different lengths for themselves.

Suggested ribbon lengths:

167cm	202cm	419cm
356cm	237cm	341cm

Encourage the customer to purchase 100cm or 200cm (you may want to use this opportunity to apply skills or 100cm =1m.) The shopkeeper is to measure this, give the customer the amount they asked for and then work out how much will be left for other customers, making a new label with the amount on. Children to swap roles and explore being the customer and the shop assistant. This activity can be extended when the children are ready to learn about perimeter.

Green Practice: Most suited for children who demonstrate errors in Question 3 e and f of the prior learning assessment and are ready to use partitioning to develop mental methods for subtraction.

Activity idea 1: As above but the children should be provided with amounts to purchase and subtract that require the children to take away chunks of hundred and tens as an introduction to partitioning. The children may need to use the place value charts provided. The children should be provided with amounts such as 110cm, 220 cm, 210cm and 105cm, to purchase and subtract from the lengths suggested in the purple activity.

Activity idea 2: For this activity the children are to apply partitioning skills for counting back in chunks. The sums provided require the children to take away chunks of hundreds and tens. The number lines are provided for a visual aid for counting back in chunks of hundred and ten and should support mental methods. Some school policies also teach the use of number lines as an introduction to written methods before teaching more formal methods.

Yellow Practice: **Most suited for children who show understanding of subtracting hundreds, tens and ones from 2 and 3 digit amounts.**

For this activity the children are to apply partitioning skills for counting back in chunks. The sums provided require the children to take away chunks of hundred, ten and one. The number lines are provided for a visual aid for counting back in chunks of hundred, ten and ones and should support mental methods. Encourage the children to discuss the chunks they are taking away. Some children may suggest subtracting other chunks or grouping chunks differently . Such as: some children may be able to take away a chunk of 200 mentally for the sum 382 – 220. Some children may suggest taking away one chunk of hundred and then another chunk of hundred to subtract 200.

Mastery: Fluency (place value)

For this mastery activity, the children are provided with blocks that contain amounts written in words. The children are to read these amounts and write these down in figures. Then they should explore subtracting hundred, ten and one (or multiples of these) from each amount. The children can then record the answer in words and digits. A further challenge could be for the children to write the value of each digit and how many hundreds, tens and ones it has.

Answers:

Green:

1) 220
2) 287
3) 435
4) 272
5) 236

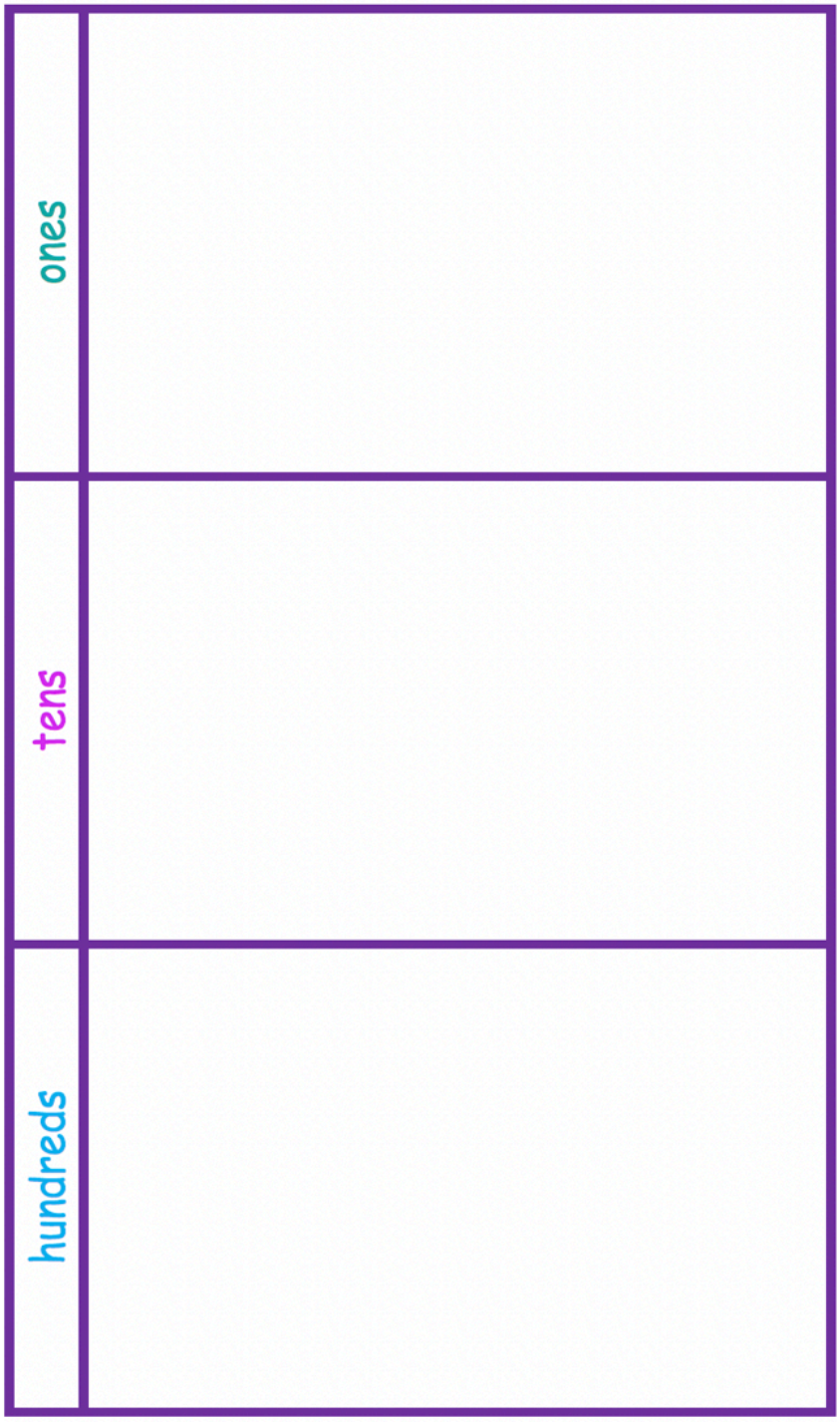
Yellow:

1) 210
2) 165
3) 142
4) 162
5) 260

BRICKWORK Mathematics

Green Practice

Practical resource



BRICKWORK Mathematics

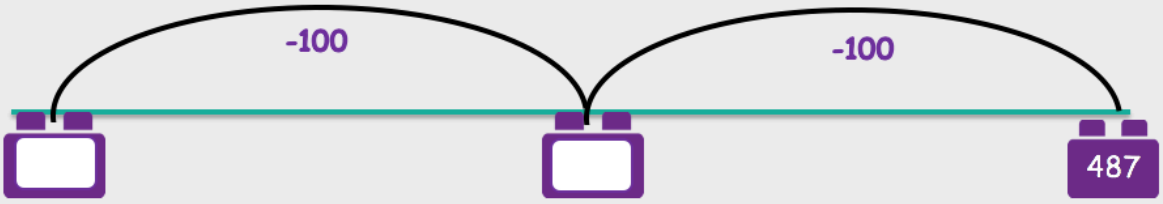
Green Activity

LO: I can mentally count back in chunks for subtraction.

Work out the answer to each sum by counting back in chunks of hundred and ten.

1) 320 - 100 = ☐

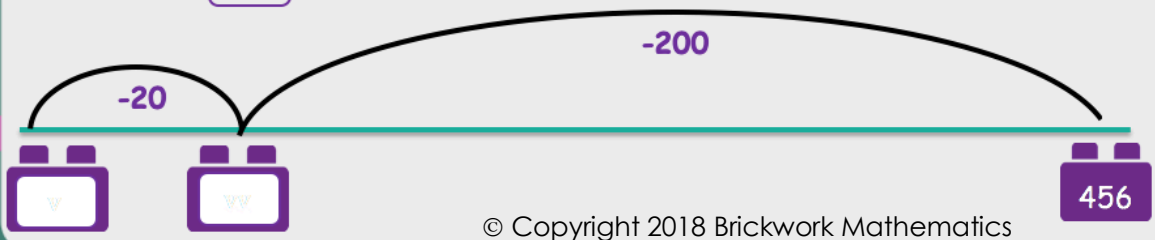
2) 487 - 200 = ☐



3) 545 - 110 = ☐

4) 382 - 110 = ☐

5) 456- 220 = ☐



BRICKWORK Mathematics

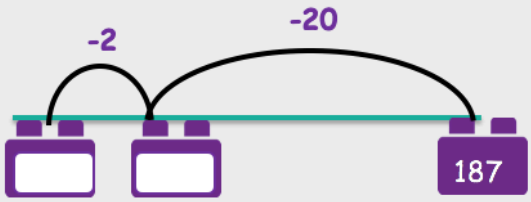
Yellow Activity

LO: I can mentally count back in chunks for subtraction.

Work out the answer to each sum by counting back in chunks.

1) 320 – 110 = ☐

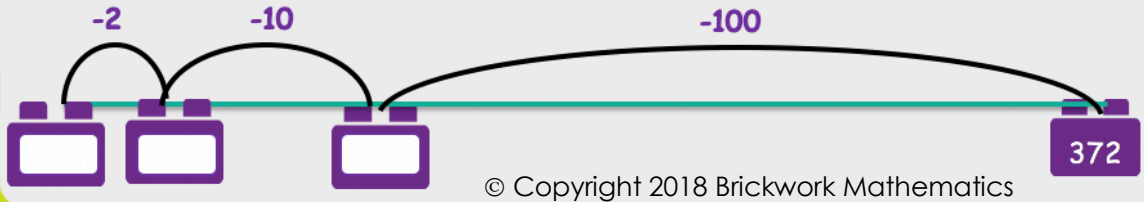
2) 187 – 22 =



3) 245 - 103 = ☐

4) 382 – 220 = ☐

5) 372 – 112 = ☐



BRICKWORK Mathematics

Mastery

Write the amounts on the blocks in figures. Then explore subtracting one, ten and hundred from each amount.

Can you record the answers in words and figures?

one hundred and fifty four

two hundred and seven

three hundred and nineteen

five hundred and ninety

six hundred and sixteen

eight hundred

seven hundred and nine

one hundred and twelve