Subtraction Written Calculation Progression Y1 to Y6

Y1

- Number bonds and related subtraction facts within 20
- Subtract 1 and 2 digit numbers within 20, including zero

Partition single digit numbers

Context based Use what you know - relate to addition

Concrete → Pictorial → Abstract Place Value

Representations emphasise part - part - whole relationship

Teacher to show use of the bar model.

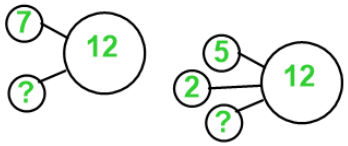
Use stem sentences.

12 - 7 = ?

12 - ? = 7

7 + ? = 12

? + 7 = 12



Y2

- 2 digit - 1 digit
- 2 digit - tens
- 2 digit - 2 digit
- Subtraction is not commutative

Context based Bridging 10 → Shuffling

Concrete → Pictorial → Abstract Place Value

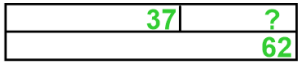
Subtract 10s from any 2 digit number

62 - ? = 37

62 - 37 = ?

Don't partition the first number

Use the bar model to develop number sense and structure. Link to addition.



62 - 37 = ?

62 - 7 = 55

55 - 30 = 25

Y3

- Numbers up to 3 digits
- Choose appropriate method
- Written method - column subtraction - no re-grouping

Context based

Show the bar model to develop number sense

2 digit - 2 digit (don't partition the first number)

Bar model → expanded column (Short time only) → compact column

COUNT ON

if numbers are close together

eg. 203 - 199

COUNT BACK

If subtracting a single digit or a 'tens' number

eg. 342 - 5 or 257 - 40

ROUND AND ADJUST

if the number being subtracted is near a 'tens' number

eg. 64 - 19 = 64 - 20 + 1

COLUMN SUBTRACTION

No re-grouping

Use place value counters or Diennes

387

-164

3 (7 - 4)

20 (80 - 60)

200 (300 - 100)

223

387

-164

223

Y4

- Numbers up to 4 digits
- Column subtraction where appropriate

Context based

Show the bar model to develop number sense

Bar model → compact column (with re-grouping if necessary)

COUNT ON

if numbers are close together

eg. 2003 - 1998

COUNT BACK

If subtracting a single digit or a 'tens' number

eg. 342 - 5 or 957 - 80

ROUND AND ADJUST

if the number being subtracted is near a 'tens' number

eg. 134 - 19 = 134 - 20 + 1

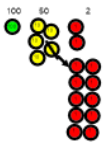
COLUMN SUBTRACTION

With re-grouping if needed

Use place value counters to show exchanging

Use small numbers initially to understand the re-grouping method

152 - 87 = ?



First we need to start with the ones.

We have 2 ones and need to take away 7.

2 - 7 = We don't have enough ones to take away 7 so we need to re-group a ten for 10 ones.

So we now have got

4 tens but 12 ones.

So we can now say

12 - 7 = 5

152 - 87 = 5

Y5

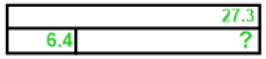
- Numbers with more than 4 digits
- Choose appropriate method for numbers involved
- Written method - column subtraction (with re-grouping if necessary)

Context based

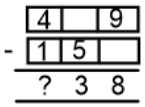
Show the bar model to develop number sense and to choose efficient method of calculation

Use decimal numbers - vary the number of place values

27.3 - 6.4



Missing box calculations



6 1
2 7 . 3
- 6 . 4
2 0 . 9

Y6

- Choose appropriate subtraction method for the numbers involved
- Written method - column subtraction (decomposition)

Context based

Use decimal numbers - vary the number of place values

23040 - 1689

2 9 13 1
2 3 0 4 0
- 1 6 8 9
2 1 3 5 1

54.3 - 7.52

Missing box calculations