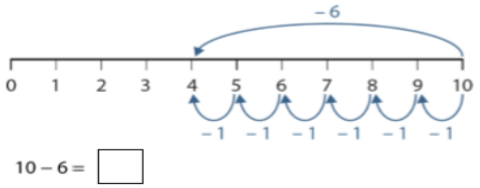
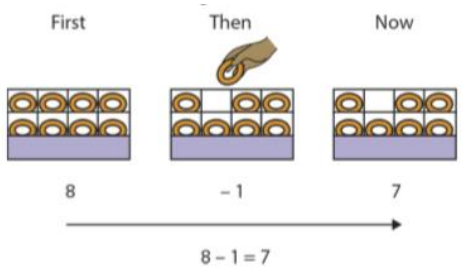
Subtraction facts: Facts pupils need to know to fluency and be able to quickly recall. *By the end of Year 2*

Subtracting from 10 (related facts to number bonds to 10)
If I know 6 + 4 = 10, then 10 – 6 =4.

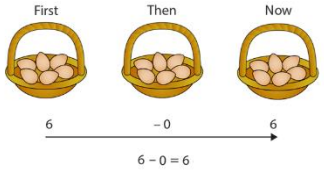
10 – 1 = 9
10 – 2 = 8
10 – 3 = 7
10 – 4 = 6
10 – 5 = 5
10 – 6 = 4
10 – 7 = 3
10 – 8 = 2
10 – 9 = 1



Subtract 1: subtracting 1 gives you one less
10 – 1 = 9
9 – 1 = 8
8 – 1 = 7
7 – 1 = 6
6 – 1 = 5
5 – 1 = 4
4 - 1 = 3
3 - 1 = 2
2 - 1 = 1
1 – 1 = 0

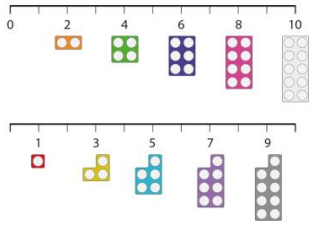


Subtract 0: When 0 is subtracted from a number, the number remains unchanged.
10 – 0 =10 9 – 0 = 9
8 – 0 = 8 7 – 0 = 7
6 – 0 = 6 5 – 0 = 5
4 – 0 = 4 3 – 0 = 3
2 – 0 = 2 1 – 0 = 1



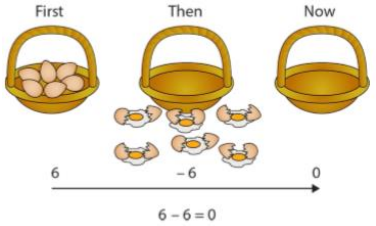
Subtracting 2:
Subtracting 2 from an odd number gives you the previous odd number.

Subtracting 2 from an even number gives you the previous even number.
10 – 2 = 8 9 – 2 = 7
8 – 2 = 6 7 – 2 = 5
6 – 2 = 4 5 – 2 = 3
4 – 2 = 2 3 – 2 = 1
2 - 2 = 0



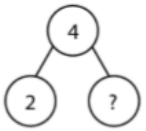
Subtracting the same number: Subtracting a number from itself gives you a difference of 0

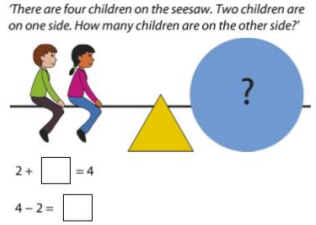
10 – 10 = 0 9 – 9 = 0
8 – 8 = 0 7 – 7 = 0
6 – 6 = 0 5 – 5 = 0
4 – 4 = 0 3 – 3 = 0
2 – 2 = 0 1 – 1 = 0



Halving (even numbers up to 10): the inverse of doubling

10 – 5 = 5 Half of 10
8 – 4 = 4 Half of 8
6 – 3 = 3 Half of 6
4 – 2 = 2 Half of 4
2 – 1 = 1 Half of 2

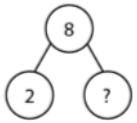


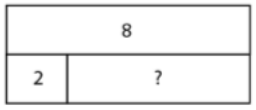


<u>Subtraction structures: Part-Part – Whole:</u> *Year 1*
Inverse of addition

The whole is… and one of my parts is…. I need to find the other part

'There are eight flowers. Two are red and the rest are yellow. How many are yellow?'

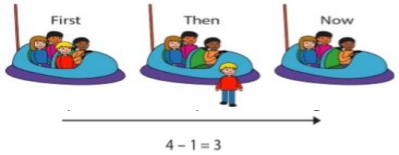


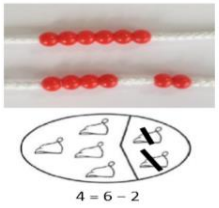


If I know 2 + 6 = 8, then I know 8 – 2 = 6

<u>Subtraction structures: Reduction:</u> *Year 1*
The value of the whole decreases.

First I have 4 children in the car, then 1 leaves, now I have 3 children in the car. **4 -1 = 3**

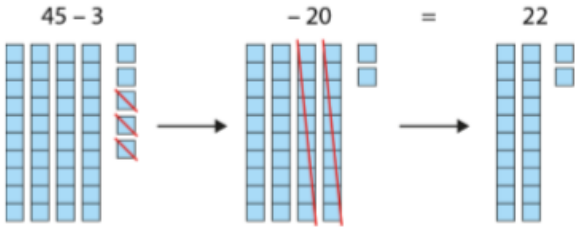




Subtracting 2 digit numbers using concrete, pictorial and known facts *Introduced at Year 2*

Concrete

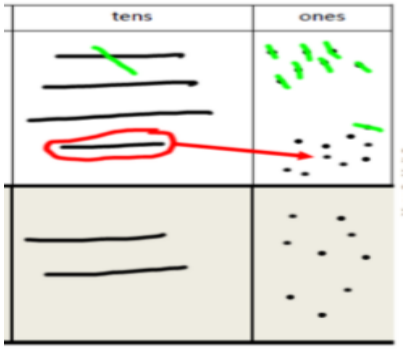
45 - 23 = 22 (non-regrouping example)



- Only the whole number needs to be made with Dienes.
- 45 = 4 tens and 5 ones
- Subtract the ones from the whole: 45-3 ones =42
- Subtract the tens from the whole: 42 – 20 = 22
- What you have remaining is you answer.

Pictorial: uisng drawings to represent the Dienes

47 – 18 = 29 (regrouping example)



- Draw Dienes for just the whole number
- 47: 4 tens and 7 ones
- Subtract the ones: 7 ones – 8ones
- ***This cannot be done, so you have to regroup 1 ten into 10 ones before you can subtract the ones***
- You now have 17 ones – 8 ones = 9 ones
- Subtract the tens: 3 tens – 1 ten = 2 tens
- Combine the remaining tens and ones: 2 tens + 9 ones = 29

Jottings: using known facts

'To subtract twenty-three, we can subtract twenty and then subtract three.'

45 – 23

20 3

45 – 23 = 45 – 20 – 3

First I partition the part I need to subtract into 2 tens and 3 ones

Then I subtract the ones: 45 – 3 =
I know 5 -3 = 2 so 45 – 3 = 42

Then I subtrcat the tens 42 – 20
I know 4 tens – 2 tens = 2 tens so 42 – 20 = 22

Column method (subtracting 3 or more digits) *Introduced at Year 3*

- Make sure digits line up carefully in the correct place value column and the whole number (largest number) is at the top.
- Always start with subtracting the ones and work from right to left.
- Subtract the bottom number away from the top number (don't switch the digits around if it 'doesn't work')
- Use known subtraction facts to help subtract each column
- If the digit on top is smaller than the part you need to subtract, then regrouping is needed.

Regroup by crossing off 1 (ten. hundred, thousand) from the next column and exchanging it for 10 (ones, tens, hundreds) by writing a small one above the currect column.