Subtraction

| Skills	Concrete	Pictorial	Abstract
Physically taking away and removing objects from a whole **take away, left less than, smaller, least, decrease, fewer**	ten frames, Numicon, cubes and other items such as beanbags could be used $4 - 3 = 1$	Children to draw the concrete resources they are using and cross out the correct amount. The bar model could also be used.	$4 - 3 =$ $\square = 4 - 3$
Counting back **count back, number line**	Using number lines or number tracks $6 - 2 = 4$	Children to represent what they see pictorially e.g.	Children to represent the calculation on a number line or number track to show their jumps. Encourgae children to use an empty number line. *End of YR target*
Finding the difference **difference between, count on**	Using cubes, Numicon or Cuisenaire rods, other objects can also be used Calculate the difference between 8 and 5.	Children to draw the cubes/other concrete objects which they have used or use the bar model to illustrate what they need to calculate. $106 - 87$ Using counting on as an informal written strategy for subtraction.	Find the diffence between and 8 and 5. $8 - 5$, the difference is $\square$ Children to explore why $9 - 6 = 8 - 5 = 7 - 4$ have the same difference.
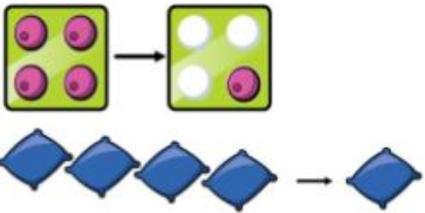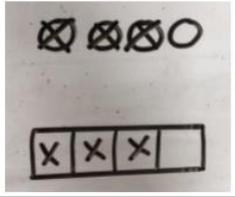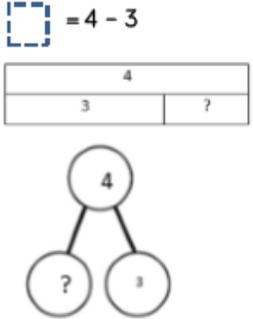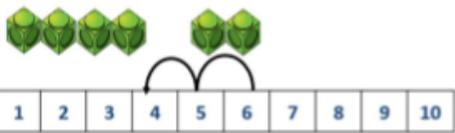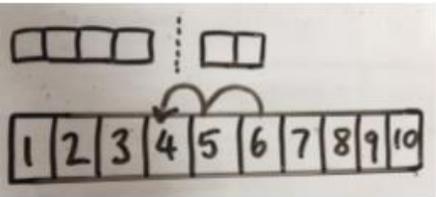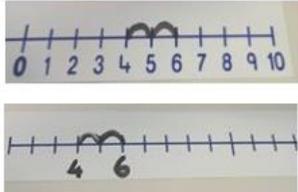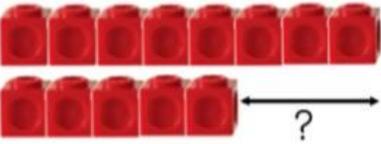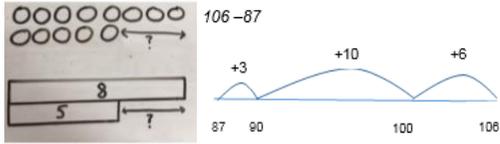
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Making 10	Using ten frames	Children to present the ten frame pictorially	Children to show how they can make 10
bonds, partition, tens	14 -5 - 4 - 1	and discuss what they did to make 10.	by partioning the number being subtracted. $14 - 5 = 9$ / \ 4 1 $14 - 4 = 10$ $10 - 1 = 9$ *End of Y1 target*
Subtracting (no regrouping) **subtraction, minus,**	Using base 10 48 - 7 10s 1s 10s 1s 4 1	Children to represent the base 10 pictorially. 10s 1s 4 1	Children can count back 7 from the ones digit. 40 8 - 7 40 1 = 41
Subtracting (regrouping) **exchange, column subtraction**	Using base 10 and having to exchange 41-26 10s 1s 10s 1s 10s 1s 1 5	Represent the base 10 pictorially, remembering to show the exchange. 10s 1s 1 5	30 4̶0̶ ¹1 - 20 6 10 5 = 15 Children must understand that when they have exchanged the 10 they still have 41 because 41=30+11. **N.B. See Written Methods page** *End of Y2 target*
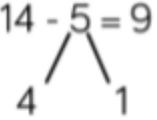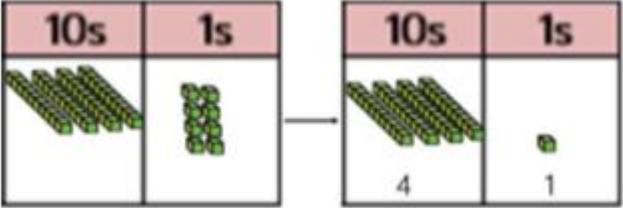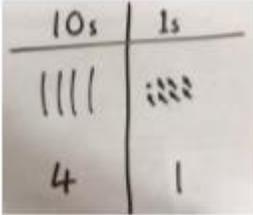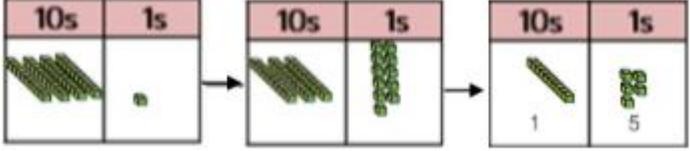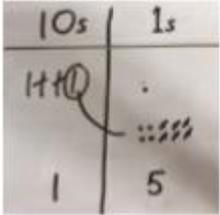
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| Column method – subtracting two three-digit numbers compact, hundreds,	Using place value counters 234 – 88	Representing the place value counters pictorially; remembering what has been exchanged.	Formal column method. Children must understand what has happened when they have crossed out digits. $728 - 582 = 146$ N.B. See Written Methods page *End of Y3 target*
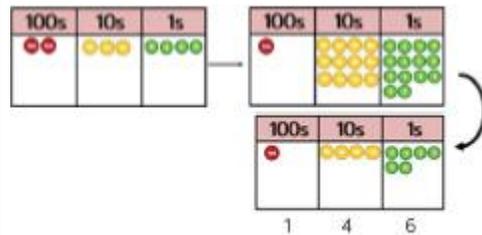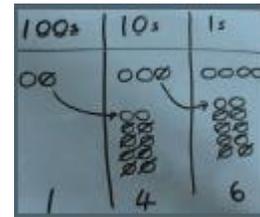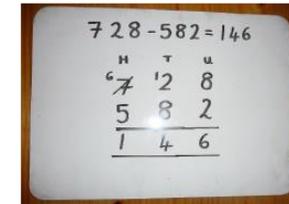
Conceptual variation (to build fluency):

142 – 65
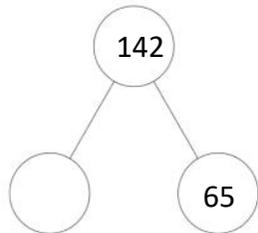
142	
65	

There are 142 pencils in a box but 65 have been broken. How many pencils are left to use?

142 – 65 = ☐

142 - ☐ = 65

Find the difference between 65 and 142.

Mental Strategies:
- Count back in hundreds, tens or ones
- 1 less than a number, 10 less than a number
- Subtract mentally a near multiple of 10
- Find a small number by counting back
- Find a difference by counting up from the smaller number to the larger number (on a number line)
- Bridge through a multiple of 10 and then adjust
- Use knowledge of number facts and place value to subtract pairs of numbers
- Subtract a 2-digit number by partitioning it and then subtracting its tens and ones
- Use the relationship between addition and subtraction

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Written Methods of Subtraction

N.B. Written abstract methods must only be used once children have a secure understanding of the operation and place value.
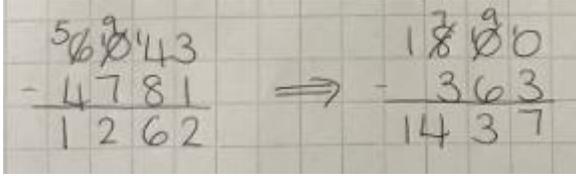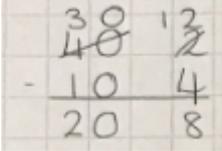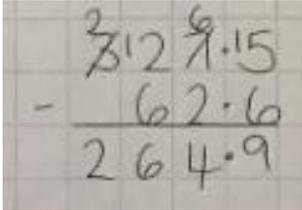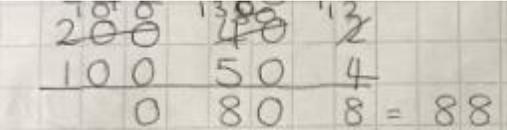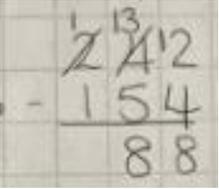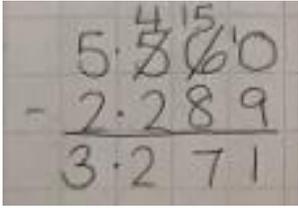
1. Expanded – no exchange	Teaching Point	4. Include a 0	Teaching Point
42 - 11	Encourage children to start at the 'ones' column to feed into later practice.		Always include 4-digit – 3-digit to ensure secure place value.
2. Expanded – 1 exchange 42 - 14 = 28	Teaching Point You are exchanging 1 ten for 10 ones – make this vocabulary explicit.		*End of Y4 target*
3. 2 exchanges 242 – 154 Expanded: Compact:	Teaching Point You can progress to compact method at any step once the child is secure with their place value.	5. Decimals 327.5 – 62.6	Teaching Point Children must include the decimal point in the sum, and line them up like buttons on a shirt to ensure correct place value *End of Y5 target*
		6. Decimals to 3d.p in context 5.560 – 2.289	Teaching Point Encourage use of 0 as a place holder. *End of Y6 target*