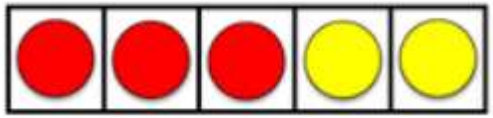
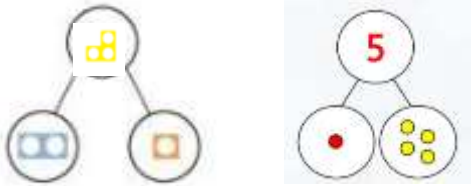
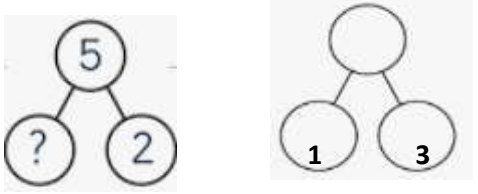
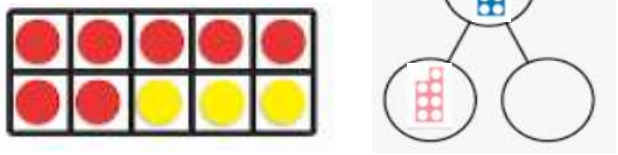
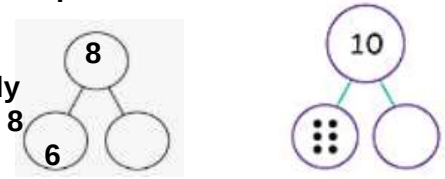
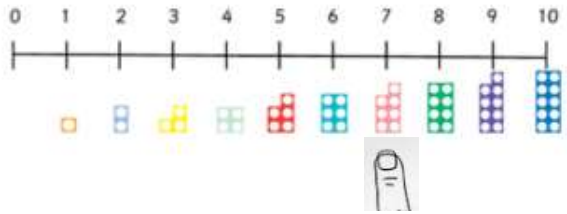
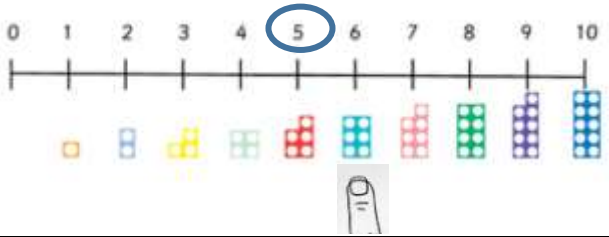
Addition

Reception	**ELG**
• Understand the 'one more than/one less than' relationship between consecutive numbers. • Explore the composition of numbers to 10. • Automatically recall number bonds for numbers 0–5 and some to 10.	• **Have a deep understanding of number 10, including the composition of each number.** • **Automatically recall (without reference to rhymes, counting or other aids) number bonds up to 5 (including subtraction facts) and some number bonds to 10, including double facts**

Stage 1	Stage 2	End of Year expectation
Explore composition of numbers to 5. 	**Explore composition of numbers to 5.** 	**Fluently recall number bonds to 5.** 
	Explore composition of numbers to 10 	**Recall number some number bonds to numbers up to 10.** **Verbally** **6 + ? = 8** 
	Find number on a numberline 	**Find one more** 

Addition

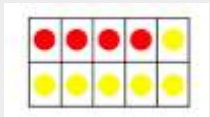
Selected National Curriculum Programme of Study Statements
Pupils should be taught to:
• represent and use number bonds and related subtraction facts within 20.
• add and subtract 1-digit and 2-digit numbers to 20, including 0.

The Big Ideas (NCTEM)
Relating numbers to 5 and 10 helps develop knowledge of the number bonds within 20. For example, given 8 + 7, thinking of 7 as 2 + 5 and adding the 2 to 8 to make 10 and then the 5 to total 15.
Thinking of part whole relationships is helpful in linking addition and subtraction. For example, where the whole is 6, and 4 and 2 are parts. This means that 4 and 2 together form the whole, which is 6 and 6 subtract 4 leaves the 2 and 6 subtract 2 leaves the 4.

Stage 1

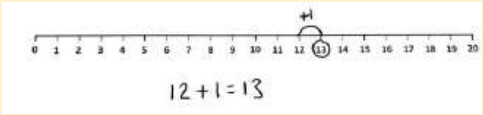
Represent number bonds within 10.

4+ 6 = 10



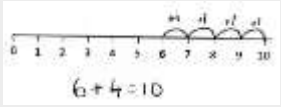
Find 1 more from any given number within 20.

Structured number line



Stage 2

Use number bonds within 10.

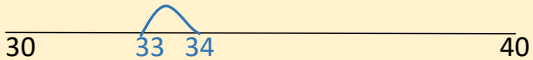


Fluently use number bond knowledge within 10.

Find 1 more from any given number within 50.

1 more than 34 or 34 + 1 =

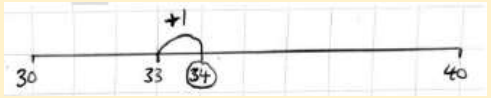
Scaffolded number line



Find 1 more from any given number within 50.

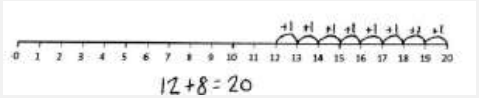
1 more than 34 or 34 + 1 =

Unscaffolded number line

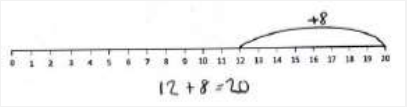


Stage 3

Represent and use number bonds within 20.



Represent and use number bonds within 20.



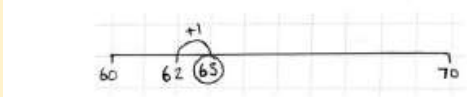
Use number bond knowledge within 20

12 + 8 = 20

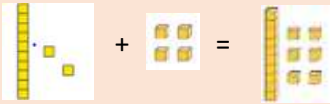
10

Find 1 more from any given number within 100.

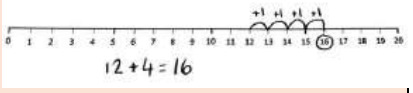
Unscaffolded number line



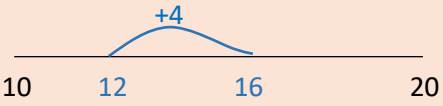
Add 1- digit and 2- digit numbers 20.



Structured numberline



Add 1-digit and 2-digit numbers 20.



Linked to Hampshire Scheme of Learning Units 1.1, 1.2, 1.4, 1.5, 1.7, 1.8, 1.9 and 1.12.

Addition

Selected National Curriculum Programme of Study Statements

Pupils should be taught to:

• recall and use addition and subtraction facts to 20 fluently and derive and use related facts up to 100.

• add and subtract numbers using concrete objects, pictorial representations, and mentally, including:

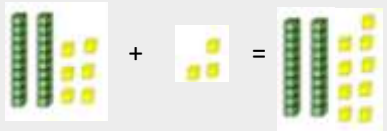
- a 2-digit number and ones
- a 2-digit number and tens
- two 2-digit numbers
- adding three 1-digit numbers

The Big Ideas (NCETM)

Understanding that addition of two or more numbers can be done in any order is important to support children's fluency. When adding two numbers it can be more efficient to put the larger number first. For example, given 3 + 8 it is easier to calculate 8 + 3. When adding three or more numbers it is helpful to look for pairs of numbers that are easy to add. For example, given 5 + 8 + 2 it is easier to add 8 + 2 first than to begin with 5 + 8. Understanding the importance of the equals sign meaning 'equivalent to' (i.e. that 6 + 4 = 10, 10 = 6 + 4 and 5 + 5 = 6 + 4 are all valid uses of the equals sign) is crucial for later work in algebra. Empty box problems can support the development of this key idea. Correct use of the equals sign should be reinforced at all times. Altering where the equals sign is placed develops fluency and flexibility.

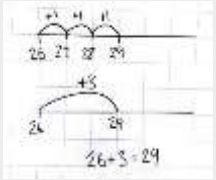
Stage 1

Add 2-digit numbers and ones to 50 without bridging.



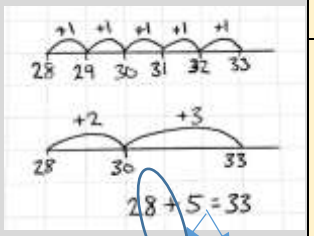
Add 2-digit numbers and ones to 50 without bridging.

(Structured and then unstructured number lines)



Add 2-digit numbers and ones to 50 with bridging.

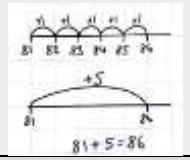
(Structured and then unstructured number lines)



Stage 2

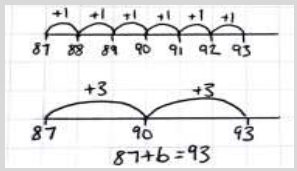
Add 2-digit numbers and ones to 100 without bridging.

(Unstructured number lines)



Add 2-digit numbers and ones to 100 with bridging.

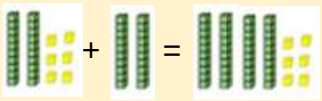
(Unstructured number lines)

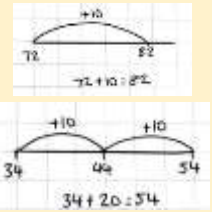


87 + 6 = 93

3 3

Add 2-digit and tens.

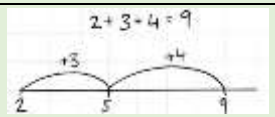




Adding three 1-digit numbers.

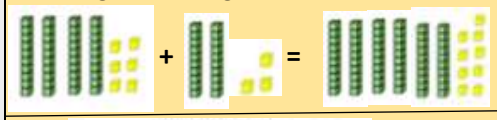
4 + 7 + 6 = 10 + 7 = 17

10



End of Year expectation

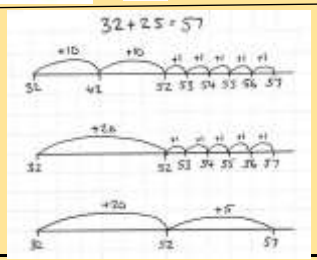
Adding two 2-digit numbers without bridging.



a)

b)

c)

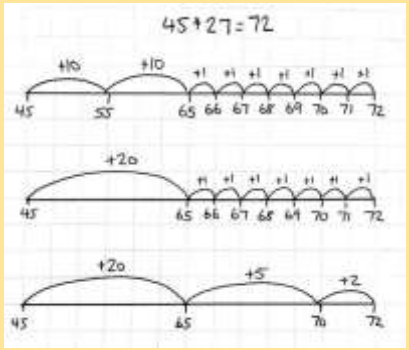


Adding two 2-digit numbers with bridging.

a)

b)

c)



45 + 27 = 72

5 + 2

Linked to Hampshire Scheme of Learning Units 2.1, 2.2, 2.4, 2.5, 2.7, 2.8, 2.9 and 2.12.