Studfall Infant Academy KS1 Addition Calculation Policy

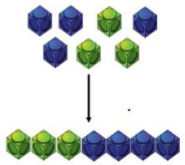
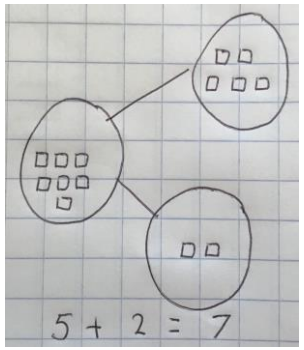
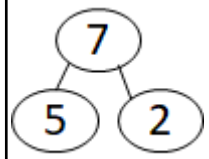
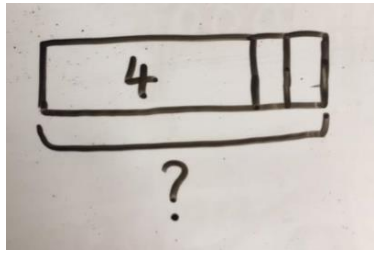
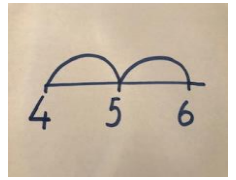
Year 1

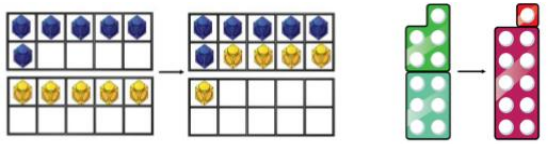
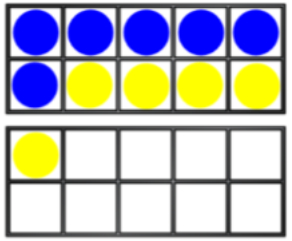
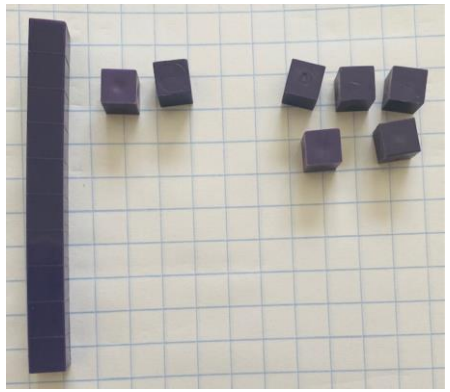
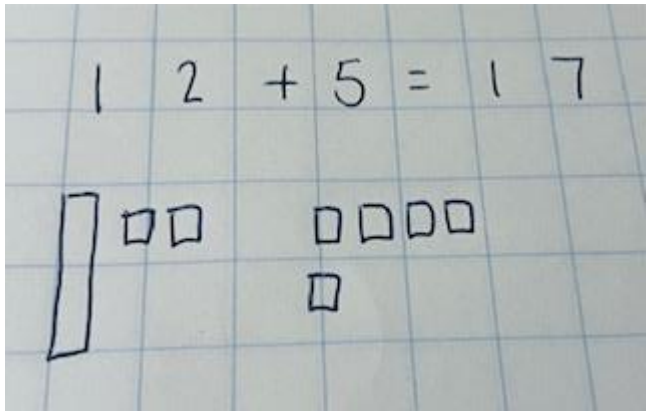
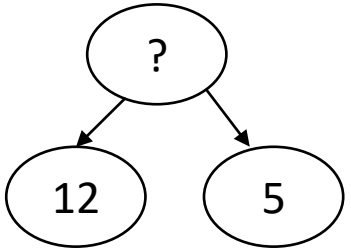
To use practical and informal written methods to support the addition of a one-digit and two digit numbers to 20, including zero.

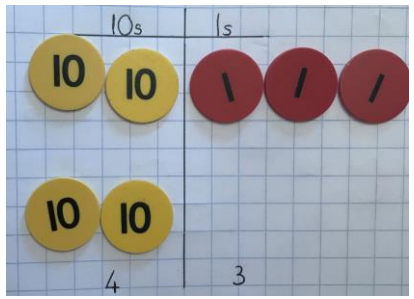
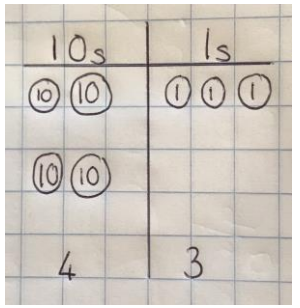
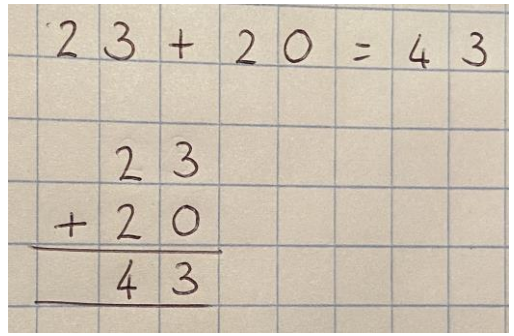
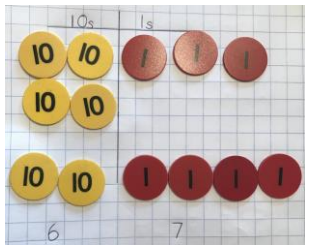
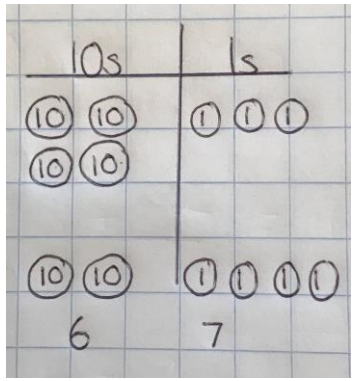
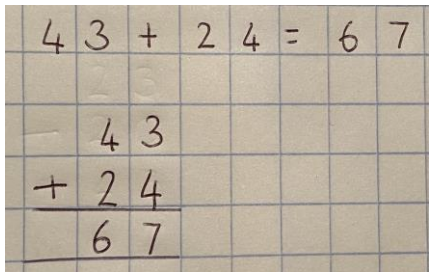
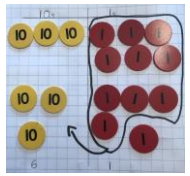
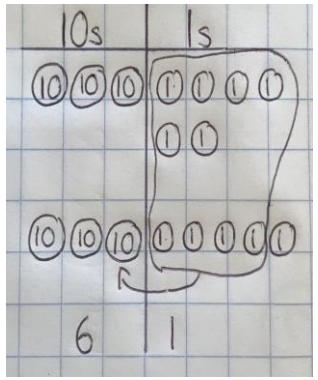
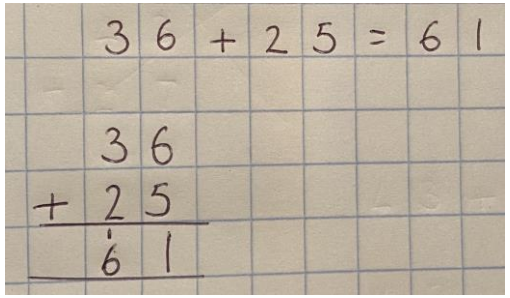
Year 2

Use practical and informal methods to support the addition of two digit numbers. Developing mental fluency with addition and place value involving 2-digit numbers, then establish more formal methods.

Prior to beginning to explore addition children need to be confident in counting using 1:1 correspondence through a rich experience of counting objects in a range of contexts (e.g. role play, small world, real life context).

Skills	Concrete	Pictorial	Abstract
Combining two parts to make a whole: part-whole Add on, more than, bigger, most, increase, part, while, altogether	Combining two parts to make a whole using a range of concrete resources (e.g. Numicon, counters, everyday objects) 	Children to represent the cubes using small circles. Bar model – as concrete image with drawn square to present the concrete objects. 	Use the part-part whole diagram to move into the abstract. 
Counting on using number lines and tracks. Count on, number line, number track	Counting on using number lines, number tracks, using cubes or Numicon. Start with the largest number then count on. 	Number line/bar model. A bar model encourages children to count on, rather than count all. 	4 + 2 = 6 Place the largest number in your head and count on the smallest number to find your answer. 

Regrouping to make a given number (starting with 10) **Bonds, counters**	Regrouping to make 10; using tens frames and counters/cubes or Numicon. 6 + 5 = 	Children to use ten frames and draw circles to show the two different numbers 	Children to develop an understanding of equality and that the equal symbol is balance. 6 + □ = 11 6 + 5 = 5 + □ 6 + 5 = □ + 4
Two digit add a one digit Partition, place value • Year 1 expectation • Numbers to 20	Continue to develop understanding of partitioning and place value. Using base 10 and place value counters. 12 + 5 = 17  Children to make the largest number using dienes/counters. Add the ones How many altogether? How many tens? How many ones?	Children to represent the base 10 e.g. lines for the tens and square for the ones. 	Children to use their number facts knowledge to recall and add a single digit to a two digit number. 12 + 5 = 

Two digit add tens Addition, plus, tens, ones, place value	Continue to develop an understanding of partitioning and place value. 23 + 20 = 43 	Children to represent the counters/dienes pictorially. Ensure the tens and ones are in the correct column 23 + 20 = 43 	Partitioning using formal method. Children will need a secure understanding of place value. 
Adding two digit and units **<u>No exchange</u>** Addition, plus, tens, ones, place value	Make the two 2 digit number. Add ones. Add tens Record answer. 43 + 24 = 67 	Children to represent the counters/dienes pictorially. 	Move on to formal method of solving addition calculations. 
Add two 2 digit numbers **<u>Exchanging 1s</u>** Addition, plus, tens, ones, place value *Year 2 expectation	36 + 25 = 61 Teaching point: Ten ones are being <u>exchanged</u> for one ten. 	Teaching point: Ten ones are exchanged for one ten 	Move on to formal method of solving addition calculations. 

Teaching point:
Start with adding the ones.
Reinforce place value columns language.