

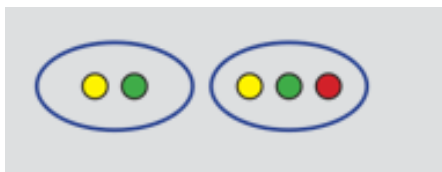
Addition Progression



Stage 1

Mark making

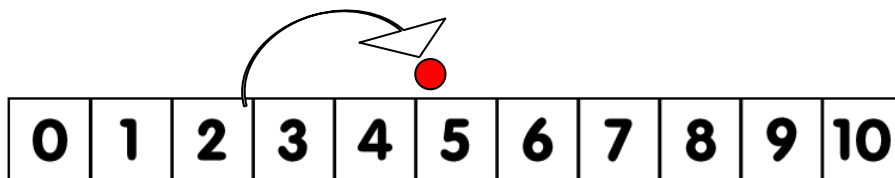
Pictorial recording



Number tracks (1 / 2 more...)

Practical - combining 2 sets

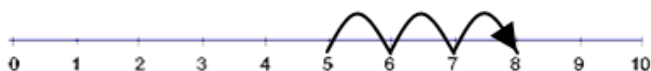
Numicon shapes



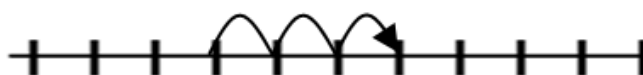
Stage 2

Use of number lines (with numbers/ with divisions)/ begin to draw own lines

$$5 + 3$$



Use of the hundred square for 2 digit+1 digit and 2 digit + 2 digit



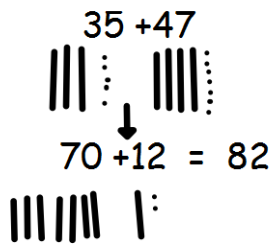
5 6 7 8

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100

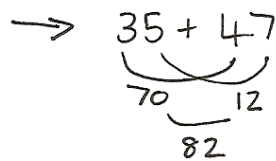
Stage 3

Empty Number Lines
Partitioning

Arrow cards
Place value counters
Diennes



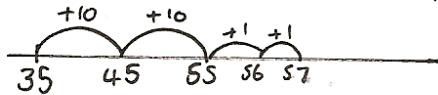
leading to



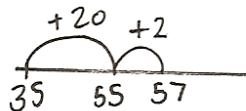
leading to

Partition:
 $35 + 47:$
 $30 + 40 = 70$
 $5 + 7 = 12$

$35 + 22$



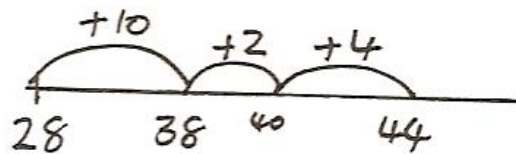
leading to



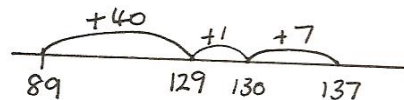
Supporting strategies

Bridging through 10/ 100

$28 + 16$

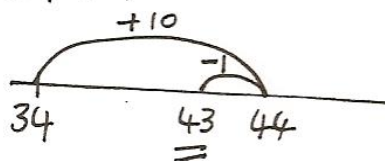


$48 + 89$

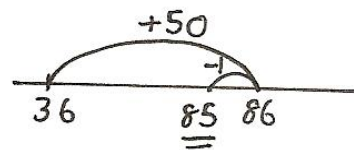


Rounding and adjusting

$34 + 9$



$49 + 36$



Stage 4

Record addition in columns to support links to place value leading towards the formal written method of addition with larger numbers.

$$25+34$$

$$20+5$$

$$\underline{30+4}$$

$$\underline{50+4} = 59$$

leading to

Expanded written method

$$38 + 25$$

$$\begin{array}{r} 38 \\ + 25 \\ \hline 13 \\ \hline 50 \\ \hline 63 \end{array}$$

Add the least significant digit first.

Diennes
Place value
counters

Stage 5

Column addition- initially not crossing the tens barrier. Where appropriate label columns H T O.

$$425$$

$$\underline{+63}$$

$$488$$

Select appropriate methods-
mental/ mental with
jottings/ written/ formal

Diennes
Place value counters

Stage 6

Add several numbers

$$363$$

$$39$$

$$\underline{+84}$$

$$\underline{476}$$

1 1

With 3, 4...more digits

$$634$$

$$\underline{+97}$$

$$\underline{731}$$

1 1

Vocabulary

Use 'carry' for
'carry ten', 'carry a
hundred' **not** 'carry
one'.

Select appropriate
methods

Diennes
Place value counters to
demonstrate carrying

Stage 7

Apply formal methods to numbers with decimals. Where appropriate label columns (tenths, hundredths, thousandths- t, h, th or fraction equivalents).

$$56.47 + 84.84$$

$$\begin{array}{r} 56.47 \\ + 84.86 \\ \hline 141.33 \\ \hline \end{array}$$

1 1 1

Line up decimal points

Put d.p. into total box first

$$\begin{array}{r} 3.765 \\ 2.900 \\ + 4.830 \\ \hline 11.495 \\ \hline \end{array}$$

2

Zeros can be added as place holders