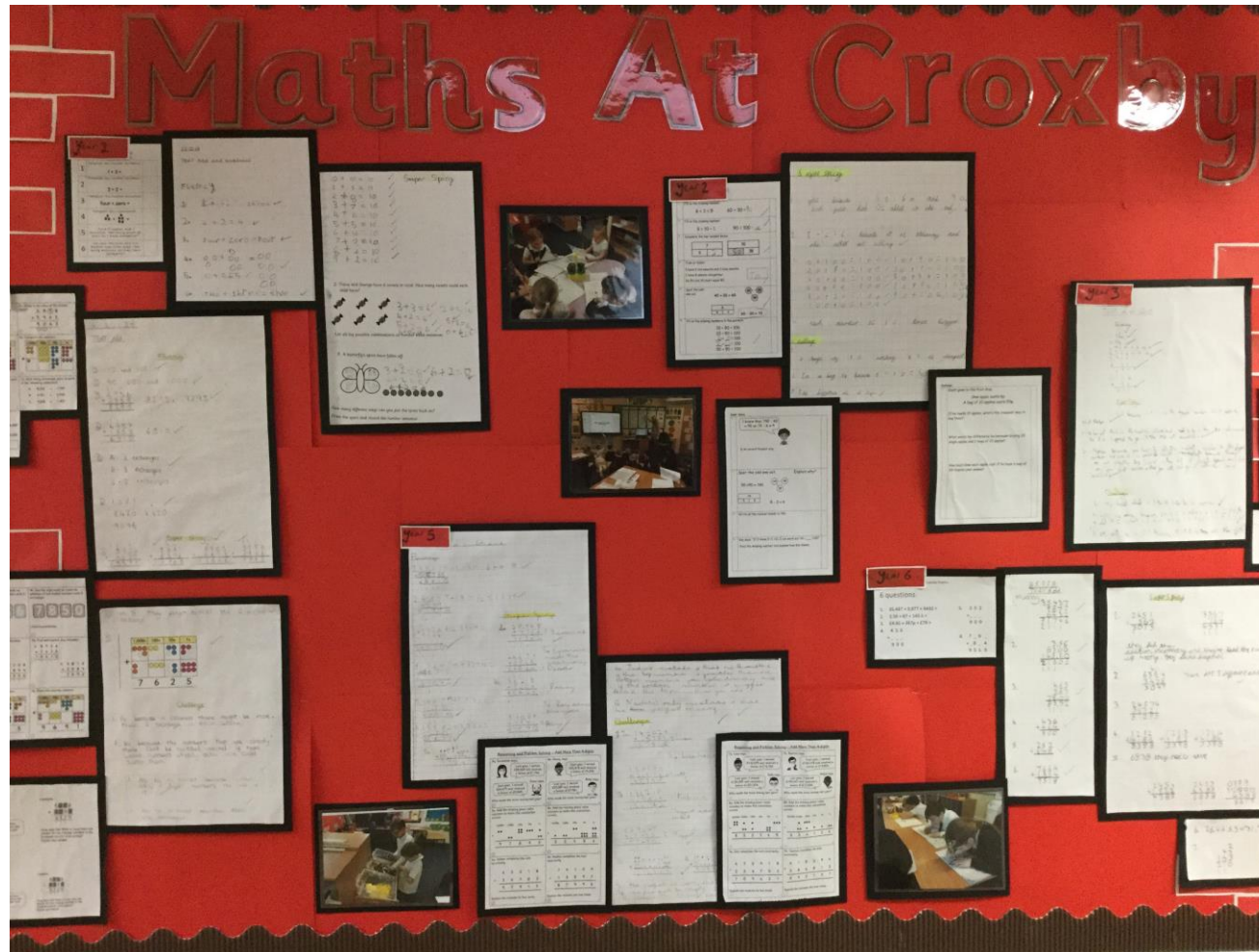
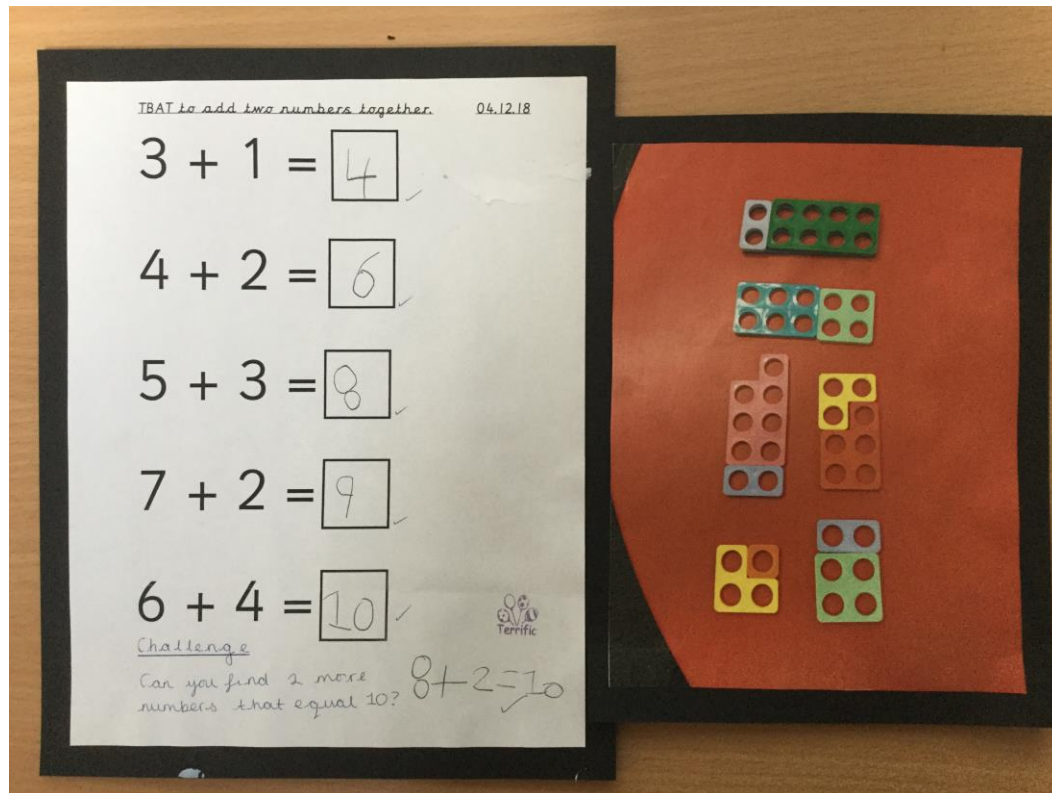


Maths Progression Booklet

To be able to add



Foundation stage:



EYFS children have been using quantities and objects to add two single-digit numbers and count on to find the answer.

Key Vocabulary

Add, more, and, make, sum, total, altogether.

Year 1:

22.10.18
TBA1: Add and subtract.

FLuenc:4

1. ~~2+2~~ 1+3=4 ✓

2. 2+2=4 ✓

3. Four + zero = Four ✓

4. $\begin{array}{r} 00 \\ 00 \\ \hline 00 \end{array} = 00$ ✓


5. 0+5=5 ✓ $\begin{array}{r} 00 \\ 00 \\ \hline 00 \end{array}$

6. Two + three = five ✓

0+10=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=10 ✓

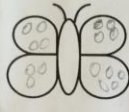
Super Spicy

2. Fiona and George have 6 sweets in total. How many sweets could each child have?

 3+3=6 ✓ 2+4=6 ✓
4+2=6 ✓ 5+1=6 ✓
5+1=6 ✓ 6+0=6 ✓
0+6=6 ✓

List all the possible combinations as number bond sentences.

3. A butterfly's spots have fallen off.

 3+3=6 ✓ 6+2=8 ✓
4+2=6 ✓ 6+2=8 ✓
6+2=8 ✓

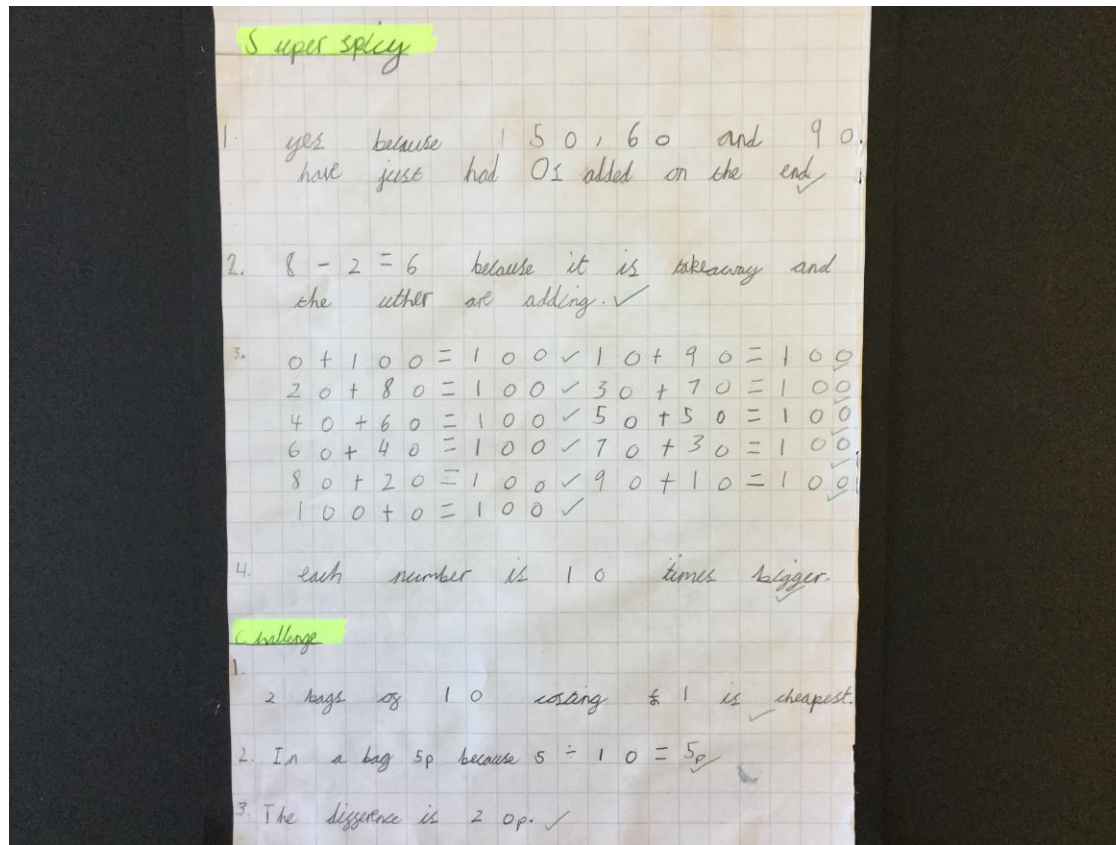
How many different ways can you put the spots back on?
Draw the spots and record the number sentence.

Year 1 have been adding one-digit and two-digit numbers to 20, including zero.

Key Vocabulary

Addition, add, more, and, make, sum, total, altogether.

Year 2:



Year 2 have been adding numbers using concrete objects, pictorial representations, and mentally, including: $TU+U$, $TU+T$, $TU+TU$ and $U+U+U$.

Key Vocabulary

Addition, add, more, and, make, sum, total, altogether, double near double.

Year 3:

15.10.18

TWO AT add and subtract

Elusky

1. False ✓
2. False ✓
3. $42 + 324$ ✓
4. $564 - 42$ ✓
5. 252 ✓

$$\begin{array}{r} 35 \\ + 287 \\ \hline \end{array}$$
$$\begin{array}{r} 6124 \\ + 52 \\ \hline 176 \end{array}$$

Super Spicy

1. C because 169 is the biggest number. So it needs to go at the top ✓
2. He has put the 6 in the hundreds column and not to be in the tens column and the 3 is supposed to go in the ones not hundreds. ✓
3. Mervin because you have to add the smallest number to the biggest number and then it is easier to calculate. ✓ Both because they are exactly the same way but it just depends on what way you find easier. And you will end up with the same answer. ✓

Challenging

1. He hasn't added 21 to 63, so he is wrong. ✓
2. Luis is wrong because $1 + 2 = 3$ and $40 + 30 = 70$.
 $0 \text{ add } 0 = 30$, $300 + 70 = 370$, $370 + 3 = 373$ ✓
3. It can't be 278 because 278 is more than 24 ✓

Year 3 have been adding numbers with up to three digits, using formal written methods of columnar addition.

Key Vocabulary

Addition, add, more, and, make, sum, total, altogether, double, near double, tens boundary, hundreds boundary.

Year 4:

4.10.18

TRAT: add

Fluency

D 10 and 100 ✓

② 90, 100 and 1000 ✓

③ $\begin{array}{r} 6956 \\ + 2339 \\ \hline 8295 \end{array}$ 8295. 9295 ✓

④ $\begin{array}{r} 4957 \\ + 1353 \\ \hline 6310 \end{array}$ 6310 ✓

⑤ A - 2 exchanges ✓
B - 3 exchanges ✓
C - 2 exchanges ✓

⑥ 1027 ✓
8420 6420
9096

Super Spicy

① $\begin{array}{r} 5936 \\ + 9635 \\ \hline 15571 \end{array}$ ✓

$\begin{array}{r} 5369 \\ + 6396 \\ \hline 11765 \end{array}$ ✓

$\begin{array}{r} 16953 \\ + 6693 \\ \hline 13646 \end{array}$ ✓

$\begin{array}{r} 111 \\ 3956 \\ \hline 7922 \end{array}$ ✓

② on B they forgot to Add the 1 as an exchange. ✓

③

1,000s	100s	10s	1s
7	6	2	5

Challenge

1. No because in columns there might be more than 1 exchange in each column. ✓

2. No because the numbers that are already there can't be switched around if there wasn't numbers already there we could switch them. ✓

1. Yes he is correct because when adding 2 digit numbers the hour is 18. ✓

2. Yes he is correct because there are exchanges. ✓

Year 4 have been adding numbers with up to 4 digits using the formal written methods of columnar addition where appropriate.

Key Vocabulary

Addition, add, more, and, make, sum, total, altogether, double, near double, equals, is the same as, tens boundary, hundreds boundary, inverse.

Year 5:

AI-Addend substance

may

$5875 + 5735 = 6440$ ✓
 5875
 5440
 1111

$45879 + 5491 = 51370$ ✓
 45879
 51370
 1111

Super Spicy

$4926 + 2994 = 7920$ ✓
 4926
 7920
 1111

$3247 + 48795 = 52042$ ✓
 3247
 48795
 52042
 1111

$534675 + 5735 = 534675$ ✓
 534675
 5735
 534675
 1111

$619442 + 5735 = 619442$ ✓
 619442
 5735
 619442
 1111

$87293 + 87996 = 175289$ ✓
 87293
 87996
 175289
 1111

4a. $28568 + 7764 = 36332$ ✓
 28568
 7764
 36332
 1111
 So Savannah made the most money.

4b. $36218 + 9205 = 45423$ ✓
 36218
 9205
 45423
 1111
 So Ben earned the most.

5a. $39589 + 7981 = 47570$ ✓
 39589
 7981
 47570
 1111
 So Ben earned the most.

6a. Jaden's mistake is that he thought if the top number is greater than the bottom number you take away. If the bottom number is bigger than the top number you add.

6b. Nadia's only mistake is that he forgot to carry.

Challenge

7a. $142029 + 15783 = 157812$ ✓
 142029
 15783
 157812
 1111
 So Lisa has the most.

7b. $136218 + 19824 = 156042$ ✓
 136218
 19824
 156042
 1111
 Majid earned the most.

8a. $139647 + 17638 = 157285$ ✓
 139647
 17638
 157285
 1111

8b. $888888 + 888888 = 1777776$ ✓
 888888
 888888
 1777776
 1111

9a. He forgot to carry the 1 on $9+7 = 16$.
 9b. He forgot to carry the 1 on $1+7 = 8$.
 He should have carried the 1.

Year 5 have been adding whole numbers with more than 4 digits, including using formal written methods.

Key Vocabulary

Addition, add, more, and, make, sum, total, altogether, double, near double, equals, is the same as, tens boundary, hundreds boundary, inverse, ones boundary, tenths boundary.

Year 6:

Super Spicy

1.
$$\begin{array}{r} 2451 \\ + 562 \\ \hline 3013 \\ 11 \end{array}$$

$$\begin{array}{r} 3567 \\ + 764 \\ \hline 4331 \\ 111 \end{array}$$

they did their addition incorrectly and they've lined the numbers up wrong. They added diagonal.

2.
$$\begin{array}{r} 65814 \\ + 3475 \\ \hline 3049 \end{array}$$
 There are 9 different answers ✓

3.
$$\begin{array}{r} 24574 \\ + 36721 \\ \hline 81295 \end{array}$$

4.
$$\begin{array}{r} 1212 \\ + 4186 \\ \hline 5398 \end{array}$$

$$\begin{array}{r} 1213 \\ + 4185 \\ \hline 5398 \end{array}$$

$$\begin{array}{r} 1214 \\ + 4184 \\ \hline 5398 \end{array}$$

5. 6838 they need to save

$$\begin{array}{r} 2453 \\ + 1932 \\ \hline 4385 \\ 1 \end{array}$$

$$\begin{array}{r} 2453 \\ + 385 \\ \hline 6838 \\ 1 \end{array}$$

$$\begin{array}{r} 0999 \\ + 10000 \\ \hline 4385 \\ 5015 \end{array}$$
 ✓

Year 6 have been solving addition multi-step problems in contexts, deciding which operations and methods to use and why. They have also been using estimation to check answers to calculations and determine, in the context of a problem, an appropriate degree of accuracy.

Key Vocabulary

Addition, add, more, and, make, sum, total, altogether, double, near double, equals, is the same as, tens boundary, hundreds boundary, inverse, ones boundary, tenths boundary, estimate.