Subtraction Workshop

Friday 20th November

Place Value

Year 1 – Identify and represent numbers using objects and pictorial representations including the number line.

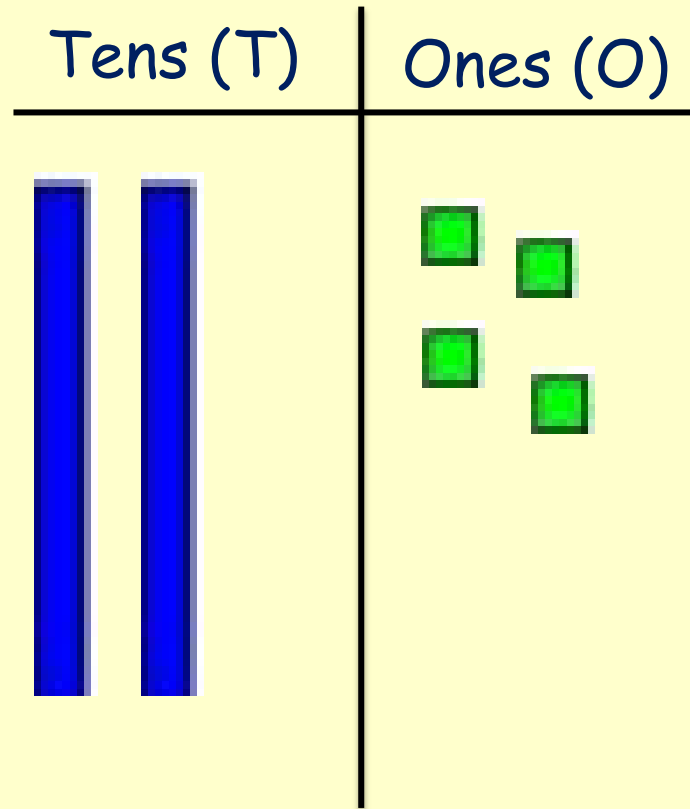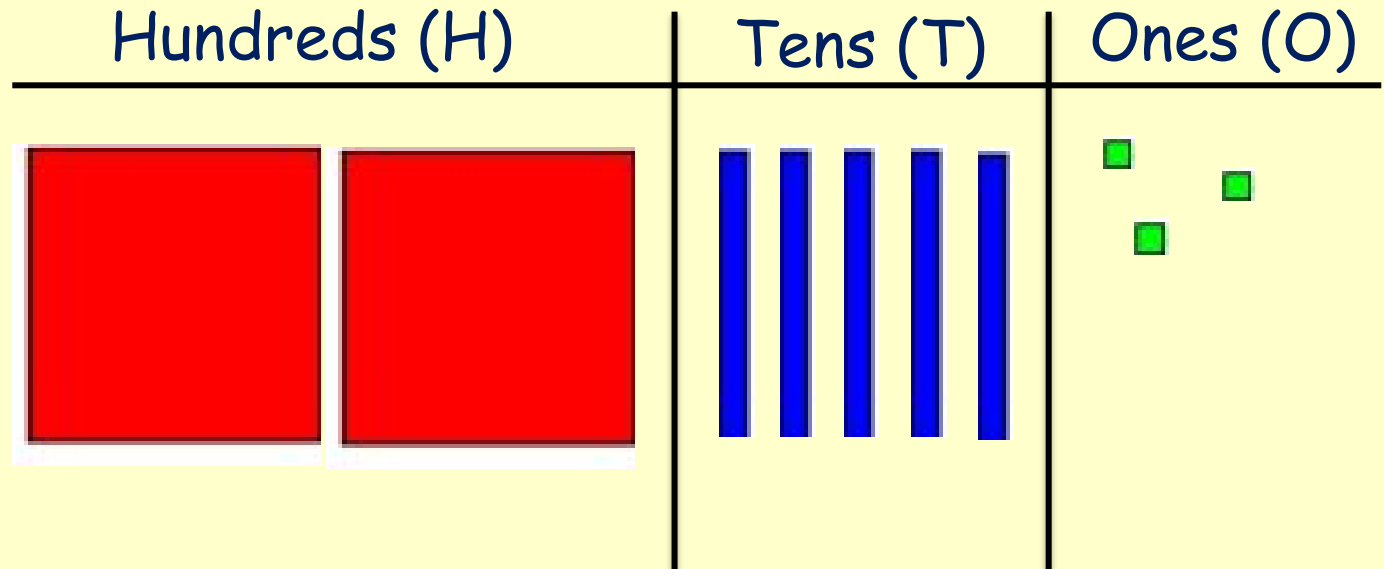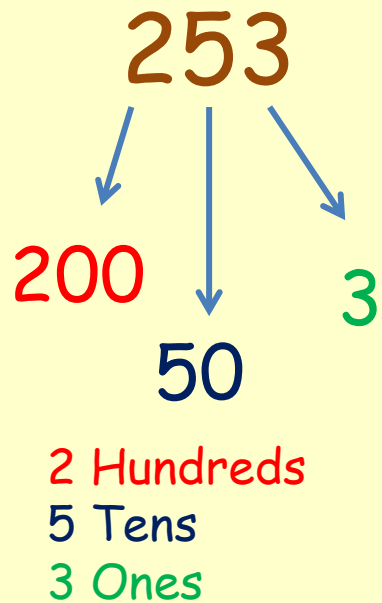# Place Value

Year 2

- 2 digit numbers

Tens (T)	Ones (O)

24

20   4

2 tens 4 ones

Place Value

Year 3

• 3 digit numbers

253

200   3

50

2 Hundreds
5 Tens
3 Ones

Hundreds (H)	Tens (T)	Ones (O)

Place Value

Year 4

- 4 digit numbers

2135

2000

30

5

100
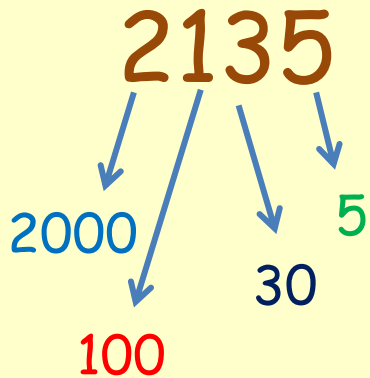
2 Thousands
2 Hundreds
5 Tens
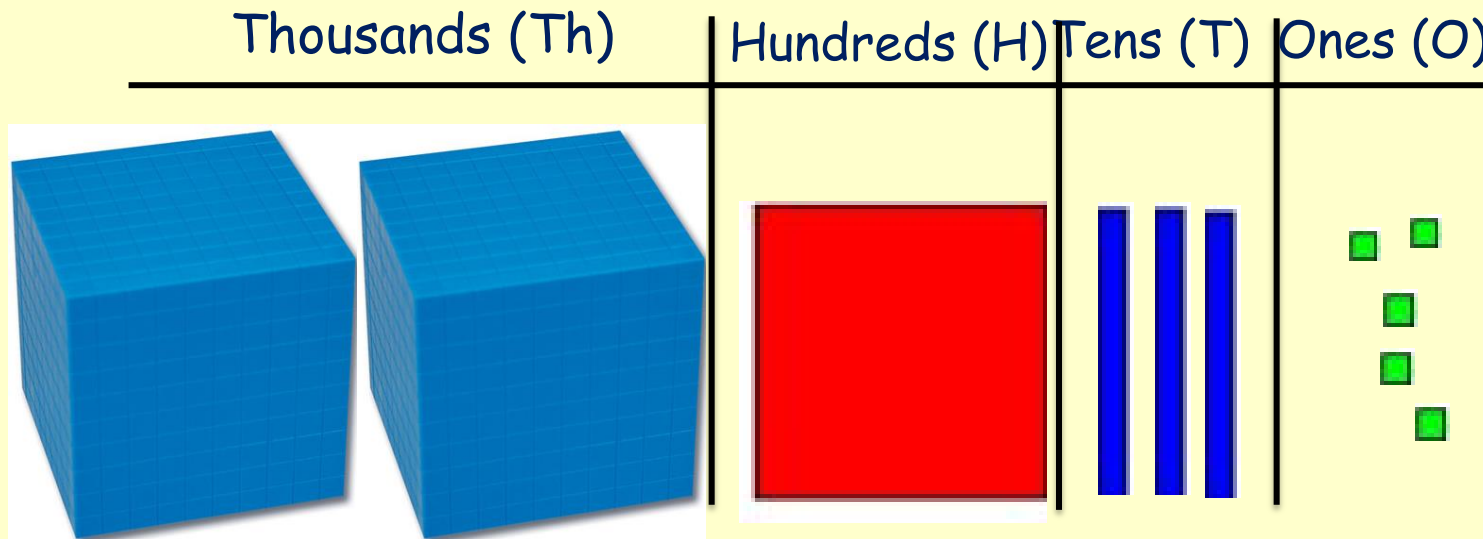3 Ones

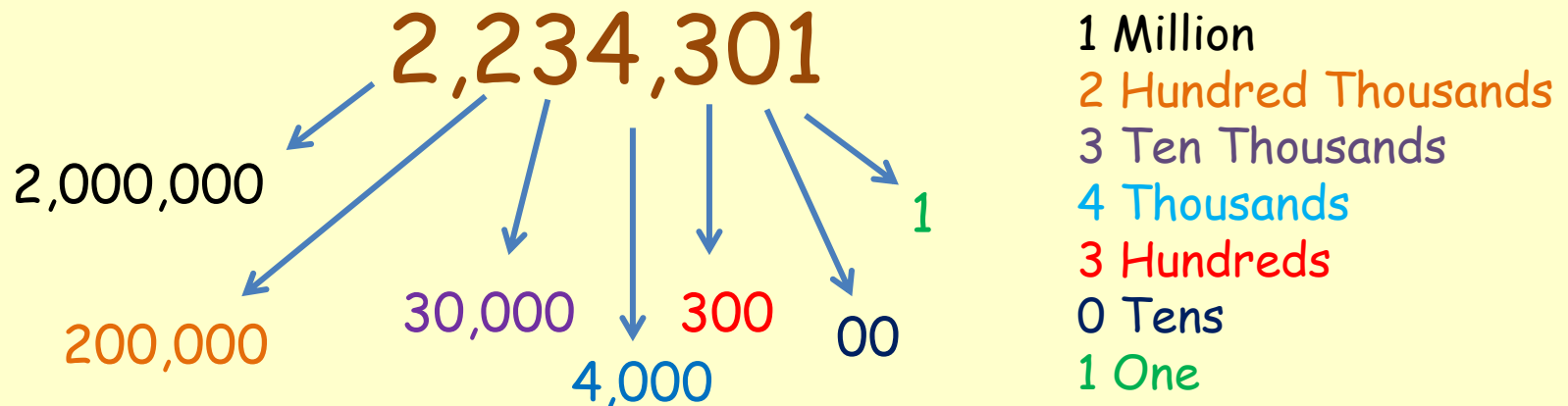| Thousands (Th)	Hundreds (H)	Tens (T)	Ones (O)

Place Value

Year 5

• Recognise the place value of numbers to at least 1,000,000

Millions (M)	Hundred Thousands (HTh)	Ten Thousands (TTh)	Thousands (Th)	Hundred (H)	Tens (T)	Ones (O)
2	2	3	4	3	0	1

2,234,301

2,000,000
200,000
30,000
4,000
300
00
1

1 Million
2 Hundred Thousands
3 Ten Thousands
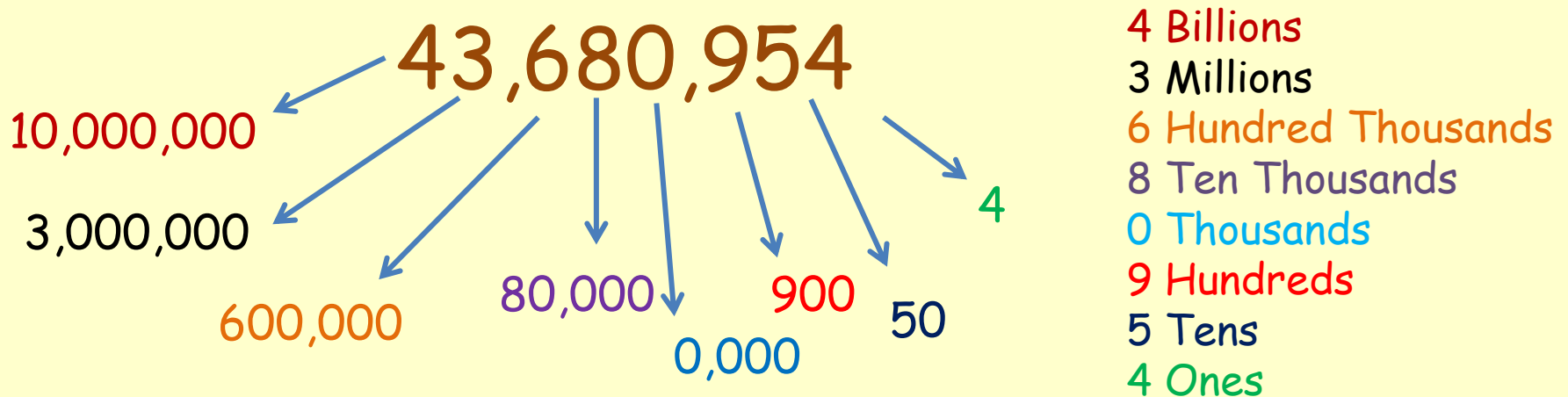4 Thousands
3 Hundreds
0 Tens
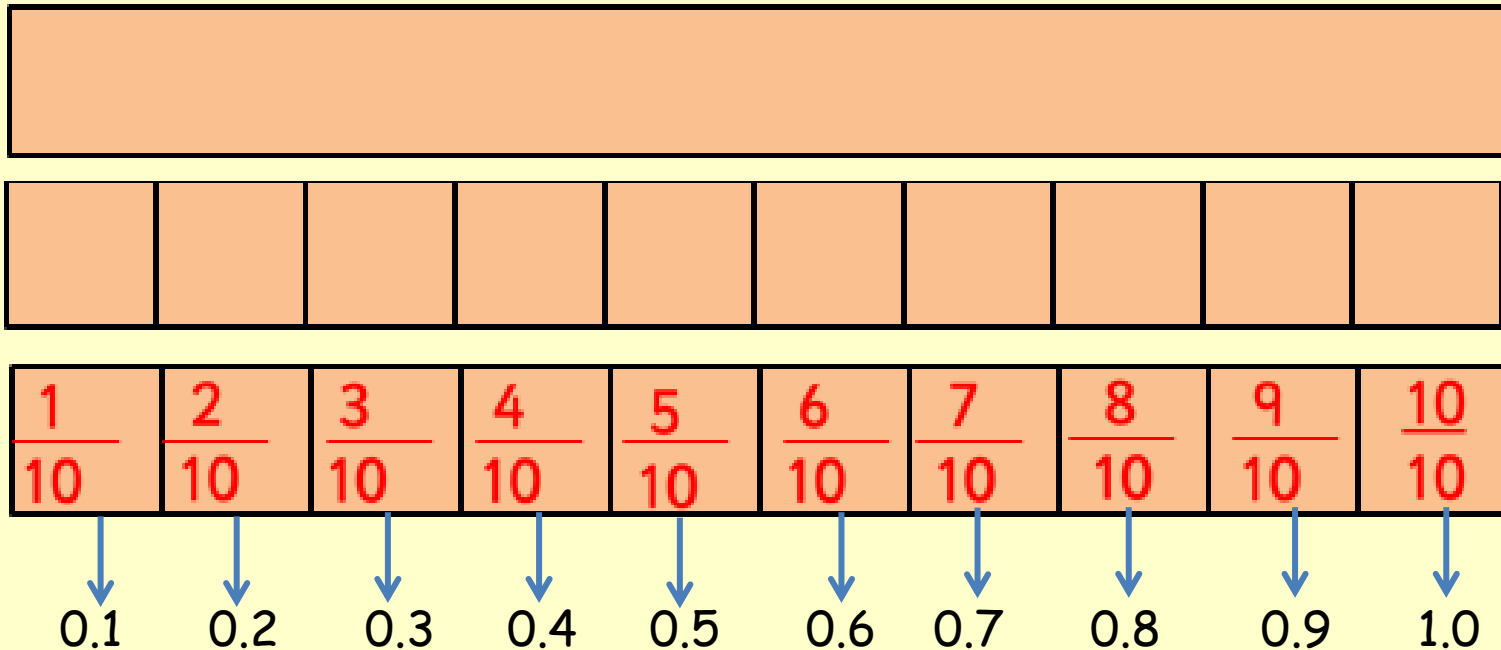1 One

Place Value

Year 6

- Recognise the place value of numbers to at least 10,000,000

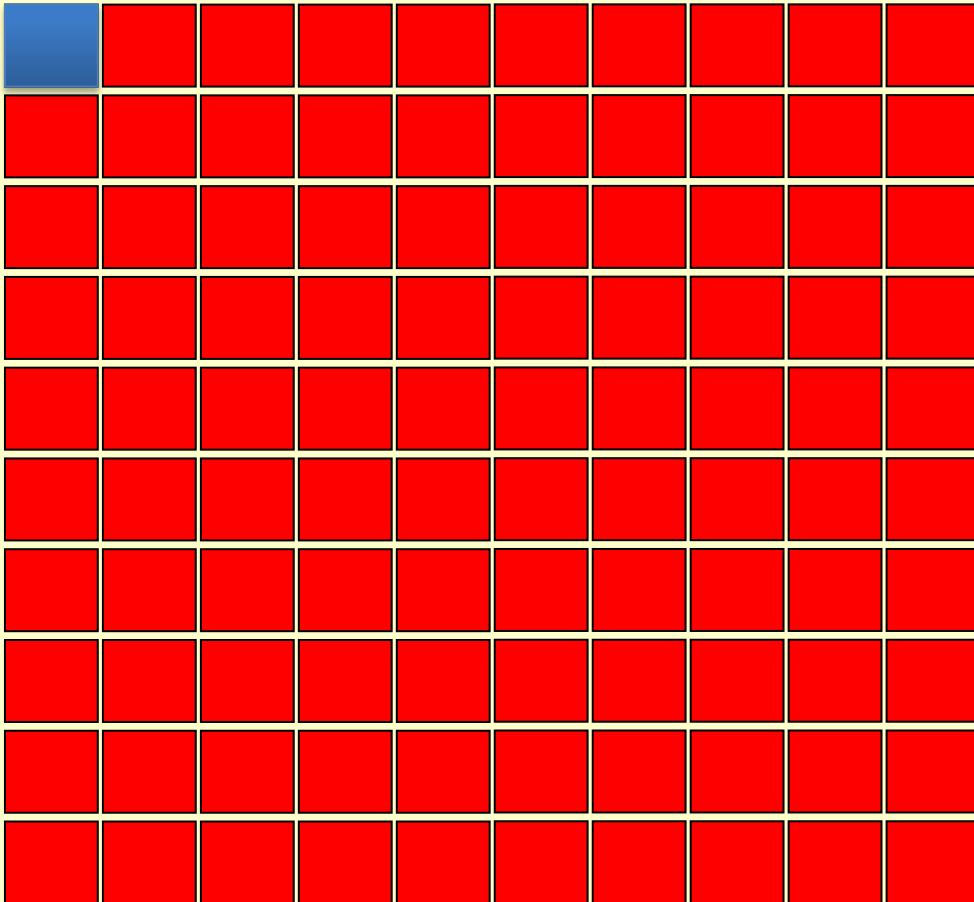| Billions (B)	Millions (M)	Hundred Thousands (HTh)	Ten Thousands (TTh)	Thousands (Th)	Hundred (H)	Tens (T)	Ones (O)
4	3	6	8	0	9	5	4

43,680,954

10,000,000

3,000,000

600,000

80,000

0,000

900

50

4

4 Billions
3 Millions
6 Hundred Thousands
8 Ten Thousands
0 Thousands
9 Hundreds
5 Tens
4 Ones

Place Value
Decimal Numbers

Year 3 -Tenths

| $\frac{1}{10}$ | $\frac{2}{10}$ | $\frac{3}{10}$ | $\frac{4}{10}$ | $\frac{5}{10}$ | $\frac{6}{10}$ | $\frac{7}{10}$ | $\frac{8}{10}$ | $\frac{9}{10}$ | $\frac{10}{10}$ |

0.1 0.2 0.3 0.4 0.5 0.6 0.7 0.8 0.9 1.0

Place Value
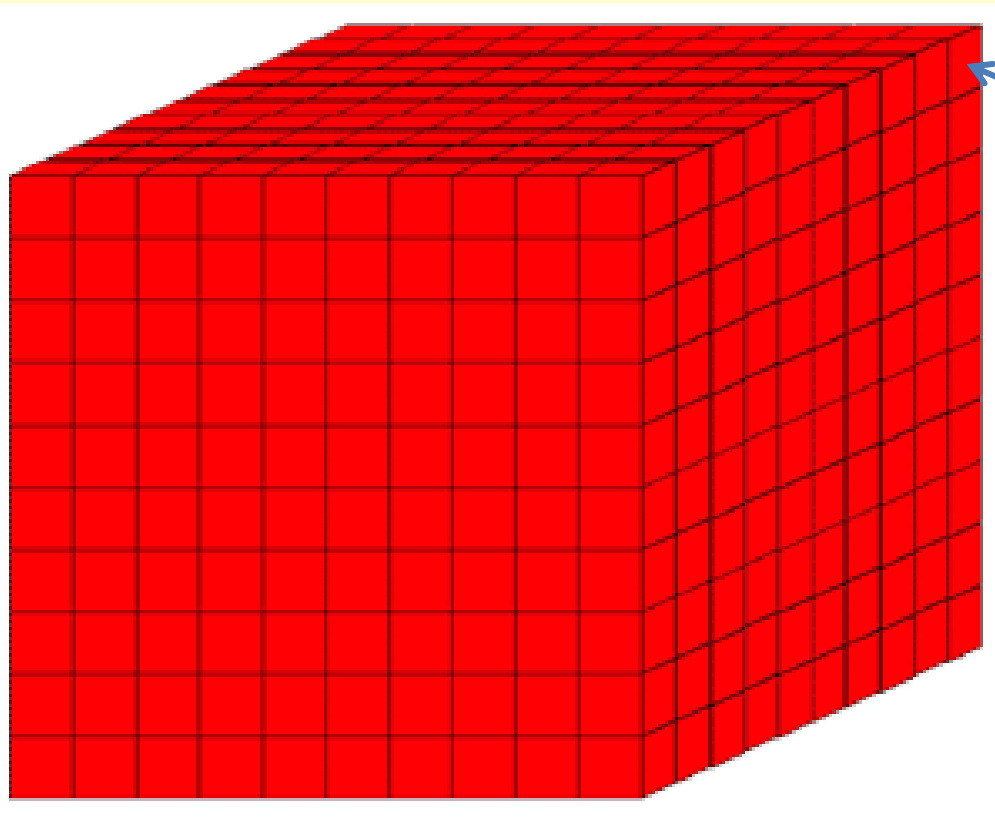# Decimal Numbers

Year 4 -Hundredths

$$\frac{1}{100} = 0.01$$

1 hundredth

Place Value
Decimal Numbers

Year 5 –Thousandths
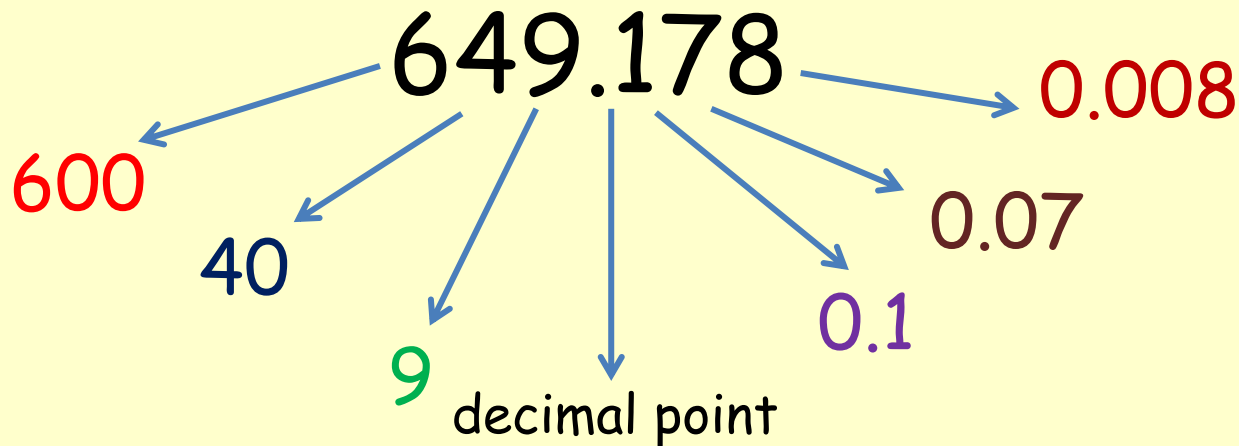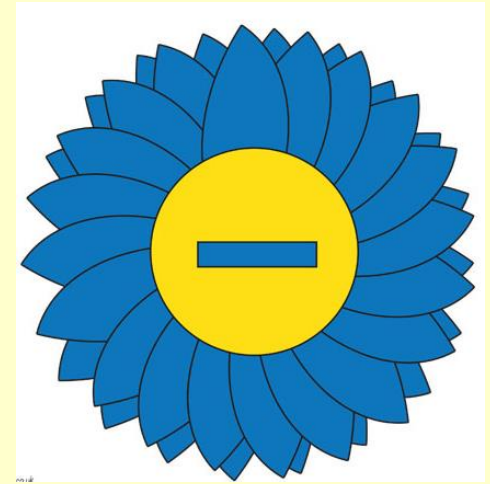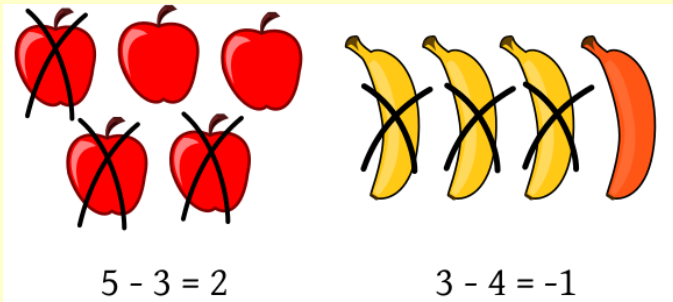

$$\frac{1}{1000} = 0.001$$
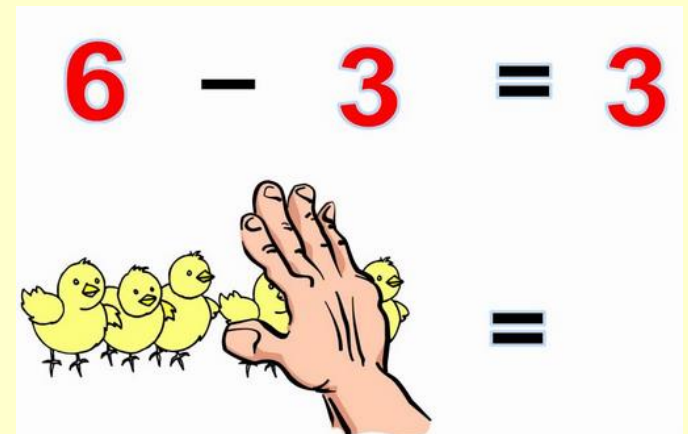
1 thousandth

Place Value
Decimal Numbers

Hundreds (H)	Tens (T)	Ones (O)	.	Tenths (Tth)	Hundredths (Hth)	Thousandths (Thth)
6	4	9	.	1	7	8

649.178

600

40

9

decimal point

0.1

0.07

0.008

Subtraction

5 - 3 = 2   3 - 4 = -1

425	3⁴2̶5	3⁴2̶5
- 143	- 143	- 143
2	82	282

6 - 3 = 3

=

Year 1

National Curriculum

- Represent and use number bonds and related subtraction facts within 20.

- Subtract one-digit and two-digit numbers to 20, including.

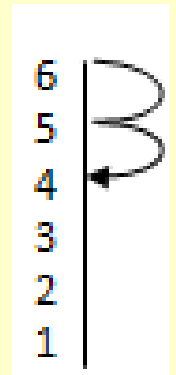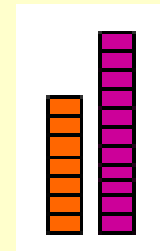- Read, write and interpret mathematical statements involving subtraction.

Year 1

Calculations

- Through practical and meaningful contexts and informal written methods.

- Link practical methods to the vertical number line.

- Find the difference within 20.

- Represent and use number bonds within 20.

- Record using – and =.

- Count back on a 100 square and a vertical number line.

Year 2

National Curriculum

- Rec all and use subtraction facts to 20 fluently, and derive and use related number facts to 100.
- Subtract numbers using concrete objects, pictorial representations, and mentally, including:

  - a two digit number and ones

  - a two digit number and tens

  - two two digit numbers

  - adding three one-digit numbers

- Understand that subtraction cannot be done in any order.

Year 2

Calculations

- Counting back by partitioning the second number. Subtract the ones first to be in line with columnar subtraction.

- Find the difference by counting up (only when the difference is small).

- Progress to the partitioned columnar method in preparation for year 3.

be in line with columnar subtractio

E.g. 46 - 18
     46 - 10 - 8

46
- 8
36
- 10
28

Find the difference by counting up (only w

$23 - 18 = 5$

+1 +1 +1 +1 +1

16 17 18 19 20 21 22 23
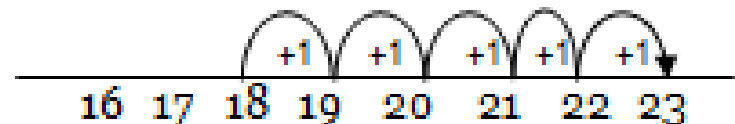
Year 3

National Curriculum

- Subtract numbers mentally, including:

    - a three-digit numbers and ones

    - a three-digit number and tens

    - a three-digit number and hundreds

- Subtract numbers with up to three digits, using formal written methods of columnar subtraction.

Year 3

Written Method

- Continue with vertical line subtraction.

- Progress to the expanded columnar subtraction method.

- Introduce exchanging through the expanded columnar subtraction method.

- Progress on to compact columnar subtraction.

$89-35 = 54$

$$\begin{array}{r} 80 + 9 \\ - \ 30 + 5 \\ \hline 50 + 4 = \mathbf{54} \end{array}$$

72 - 47

$$\begin{array}{r} ^{60}\cancel{70} + {}^{1}2 \\ - \ 40 + 7 \\ \hline 20 + 5 = \mathbf{25} \end{array}$$

T O	H T O	T O
4 7	8 6 4	$4\cancel{5}^{1}1$
- 2 3	- 6 2 1	- 3 6
2 4	2 4 3	1 5

Year 4

National Curriculum

- Subtract numbers with up to 4 digits using the formal written method of columnar subtraction.

Year 4

Written Method

- Continue with partitioned columnar subtraction.

- Progress to compact columnar subtraction.

Year 5

National Curriculum

- Mentally subtract numbers with increasingly large numbers.

- Subtract whole numbers with more than 4 digits, including formal written methods (columnar subtraction)

Year 5

Written Method

- Continue with compact columnar subtraction.

- Use columnar method to subtract decimals.

Year 6

National Curriculum

- Perform mental calculations, including mixed operations and large numbers.

- Solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why.

Year 6

Written Method

- Continue with compact columnar subtraction.

- Use columnar method to subtract decimals.