Maths

Calculation Policy

Place Value

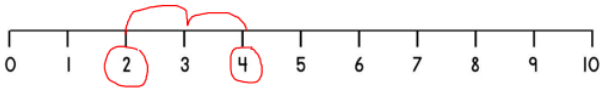
2024

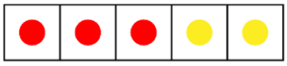
EYFS

Counting:

- I can say numbers in words in a sequence

1. Numicon 
2. Counting objects 
3. Number track/ number line 



4. Fives and tens frame 

- I can use 1:1 counting

Same as previous

- I know the last number counted is the total value

Same as previous

- I can use subitising

Same as previous

- I understand the numeral meaning

Same as previous

- I know the number does not change if you move objects around
- I can link numerals with their cardinal number value up to 10
- I can count beyond 20.

Same as previous

Comparison:

- I can identify groups within the same amount

  Same as previous

- I can use the language 'more', 'less', 'greater' and 'fewer'

  Same as previous

- I can apply knowledge of one more when counting numbers

  Same as previous

- I can apply knowledge of one less when counting numbers

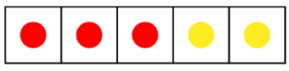
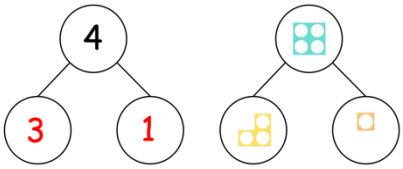
  Same as previous

- I can compare numbers

  Same as previous

Composition:

- I can understand that a number can be partitioned into two numbers

1. Numicon 
2. Counting objects 
3. Tens/fives frame 
4. Part part whole model 

- I can understand that a number can be partitioned into more than two numbers

  Same as previous

- I can recall number bonds to 5 and some within 10

  Same as previous

- I can use inverse operations

  Same as previous

  - I can identify odd and even numbers within 10

Year One:

- I can say numbers in words in a sequence

  See previous year group

- I can use 1:1 counting

  See previous year group

- I know the last number counted is the total value

  See previous year group

- I can use subitising

  See previous year group

- I understand the numeral meaning

  See previous year group

- I know the number does not change if you move objects around

  See previous year group

- I can understand that a number can be partitioned into two numbers

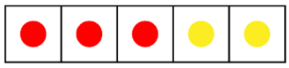
  See previous year group

- I can understand that a number can be partitioned into more than two numbers

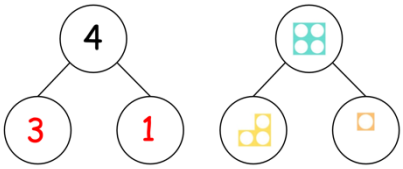
  See previous year group

- I can understand that the numbers 1-5 can be partitioned into different ways.

  1. Numicon

  2. Tens/fives frame 

3. Part part whole model



- I can understand the numbers 1-5 can be partitioned in a systematic way
  e.g. 0 + 4 = 4
  1 + 3 = 4
  2 + 2 = 4

Same methods as previous

- I can understand that each of the numbers 1-5 can be partitioned into 2 parts.
  e.g. If I know 1 part, we can find the other part.

Same methods as previous

- I can identify groups within the same amount
  See previous year group

- I can use the language 'more', 'less', 'greater' and 'fewer'
  See previous year group

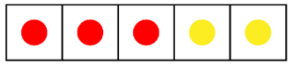
- I can apply knowledge of one more when counting numbers
  See previous year group

- I can apply knowledge of one less when counting numbers
  See previous year group

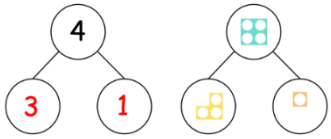
- I can find one more than a given number (up to 10)

4. Numicon

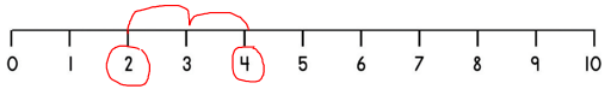
5. Tens/fives frame



6. Part part whole model



7. Number track/ number line



- I can find one less than a given number (up to 10)

Same methods as previous

- I can understand that the numbers 6-10 can be partitioned into different ways.

Same methods as previous

- I can understand the numbers 6-10 to be partitioned in a systematic way.

Same methods as previous

- I can understand that each of the numbers 6-10 can be partitioned into 2 parts.

Same methods as previous

- I can find one more than a given number (up to 20)

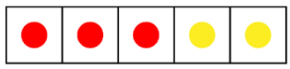
Same methods as previous

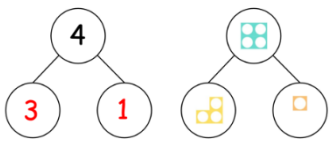
- I can find one less than a given number (up to 20)

Same methods as previous

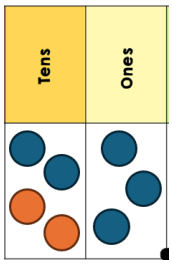
- I can compare 2 groups using 'greater', 'fewer', 'less than', 'more than' and 'equal'

1. Numicon

2. Tens/fives frame 

3. Part part whole model 

4. Place value chart and counters



- I can compare numbers

  See previous year group

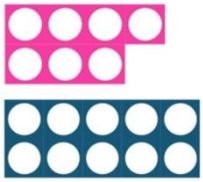
- I can compare 2 groups using signs < > =

Same methods as previous

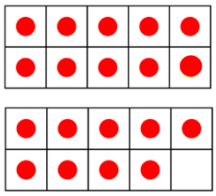
- I understand that the numbers 11-19 can be formed by combining tens and ones.
- I can partition numbers 11-19 into tens and ones

The digits in the ones column tell us that the value of the ones and the digits in the tens column tell us the value of the tens.

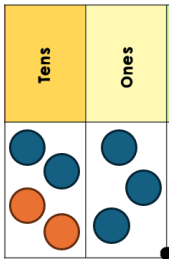
1. Numicon



2. Tens frame

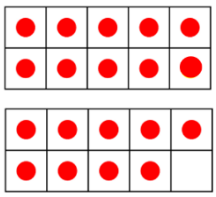


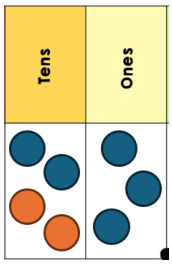
3. Place value chart and counters



- I can read and write numbers up to 20.
- I understand that a number is even if the ones digit is even.

1. Numicon 

2. Tens frame 

3. Place value chart and counters 

- I can spot patterns when counting in ones

  Rule: the ones column changes as the tens column stays the same

  Same methods as previous

- I can examine the counting sequence when counting to 100.

  Identify the pattern in the sequence

  Same methods as previous ***including bead string and 100 square***

- I can position numbers on a number line (0-100)

- I can find one more than a given number (0-100)

  Same methods as previous ***including bead string and 100 square***

- I can find one less than a given number (0-100)

  Same methods as previous ***including bead string and 100 square***

- I can count forwards to and across 100

  Start with 0 then from any given number.

- I can count backwards to and across 100

  Start with 0 then from any given number.

Year Two:

- I can understand the numbers 1-5 can be partitioned into different ways
  See previous year group

- I can understand the numbers 1-5 can be partitioned in a systematic way
  See previous year group

- I can examine the counting sequence when counting to 100.
  See previous year group

- I can position numbers on a number line (0-100)
  See previous year group

- I can count forwards to and across 100
  Start with 0 then from any given number.
  See previous year group

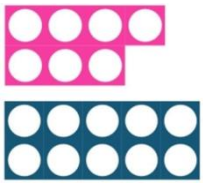
- I can count backwards to and across 100
  Start with 0 then from any given number.
  See previous year group

- I understand that the numbers up to 20 can be formed by combining tens and ones.

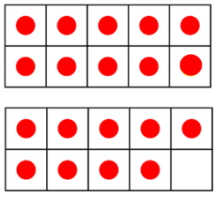
- I can partition numbers up to 20 into tens and ones

- I understand that 2 digit numbers can be made up of tens and ones

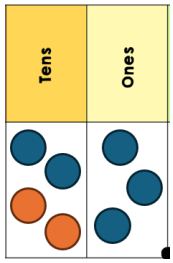
1. Numicon



2. Tens frame



3. Place value counters

4. Place value chart 

- I know that 10 ones are equivalent to 1 ten (10 x 1 = 10)

- I can explore the number sequence and the patterns when counting.
  When does the tens digit change?
  When does the ones digit change?

  Same methods as previous *but including bead strings and hundred squares*

- I can read and write numbers up to 20.
  See previous year group

- I can read 2 digit numbers in digits and words

- I can write 2 digit numbers in digits and words

- I can find one more than a given number (0-100)
  See previous year group

- I can find one less than a given number (0-100)
  See previous year group

- I can count forwards in tens from any given number

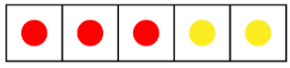
  Same methods as previous *but including bead strings and hundred squares*

- I can count backwards in tens from any given number

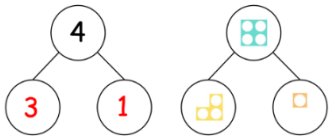
  Same methods as previous *but including bead strings and hundred squares*

- I can partition 2 digit numbers using standard partitioning

  1. Numicon

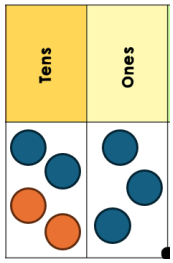
  2. Tens/fives frame 

3. Part part whole model



5. Place value counters

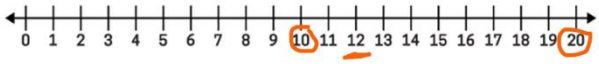
6. Place value chart



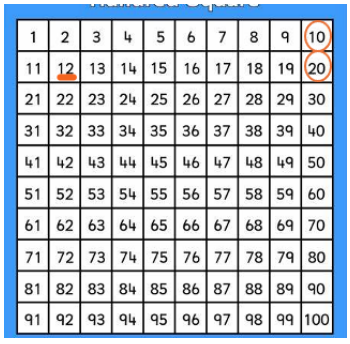
7. Write as an addition statement 43 = 40 + 3

- I can understand that the relative size of 2-digit numbers can be determined by exploring the tens digit and if necessary, the ones digit.
- I can identify multiples of 10
- I can identify previous and next multiple of 10 of a 2 digit number

1. Number line



2. Hundred square



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

- I can compare 2 groups using 'greater', 'fewer', 'less than', 'more than' and 'equal'

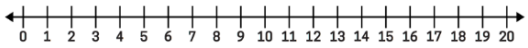
See previous year group

- I can compare 2 groups using signs < > =

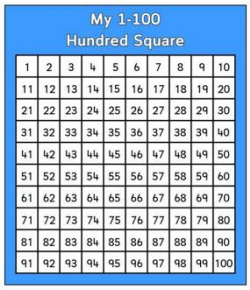
See previous year group

I can compare up to 2 digit numbers by looking at the tens and ones columns

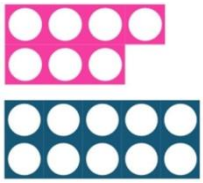
1. Number line



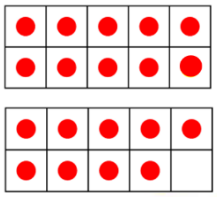
2. Hundred square



3. Numicon

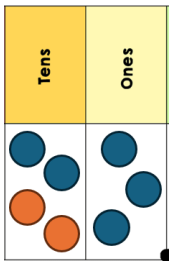


4. Tens frame



5. Place value counters

6. Place value chart



If there are more. than two numbers to compare, encourage the children to use the following method:

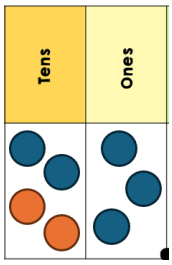
a. ***Underline the ones digit***
b. ***Write the numbers on top of each other ensuring the ones are lined up***
c. ***Compare the tens first***
d. ***Compare the ones***

1	7		5	3		9		3	2
1	7			5	3				
5	3			3	2				
	9			1	7				
3	2				9				

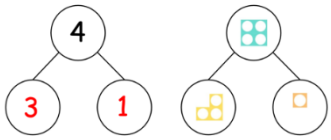
- I can partition numbers in non-standard ways

e.g. 35 can be partitioned into 20 and 15 rather than 30 and 5

1. Place value chart and counters



2. Part part whole model



3. Write it as an addition 35 = 20 + 15

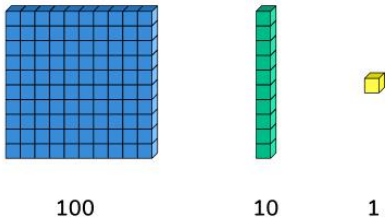
Year Three:

- I understand that 2 digit numbers can be made up of tens and ones

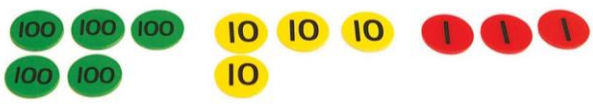
See previous year group

- I can recognise that a 3 digit number is made up of hundreds, tens and ones

1. Dienes



2. Place value counters



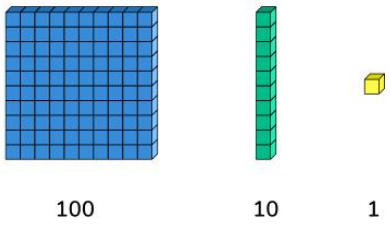
3. Place value chart

- I can partition 2 digit numbers using standard partitioning

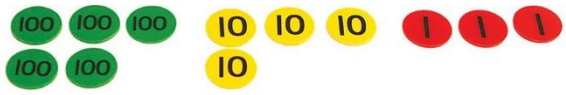
See previous year group

- I can compose and decompose 3 digit numbers using standard partitioning

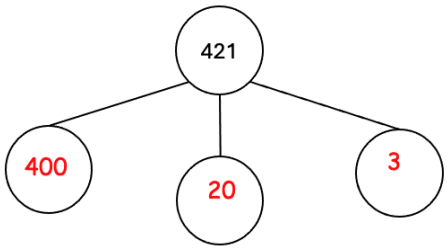
1. Dienes



2. Place value counters



3. Part part whole model



4. Write as an addition statement 421 = 400 + 20 + 3

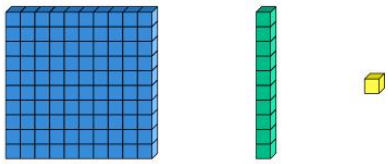
- I know that 10 ones are equivalent to 1 ten (10 x 1 = 10)
- I know that 10 tens are equivalent to 1 hundred (10 x 10 = 100)

Same as previous

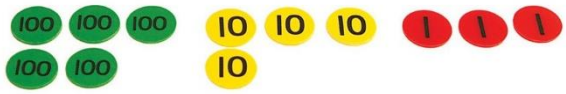
- I can read numbers up to 2 digits in digits and words

- I can read numbers up to 3 digits in digits and words
- I can write numbers up to 2 digits in digits and words
- I can write numbers up to 3 digits in digits and words
- I can find 1 more or less than a given number
- I can find 10 more than a given number

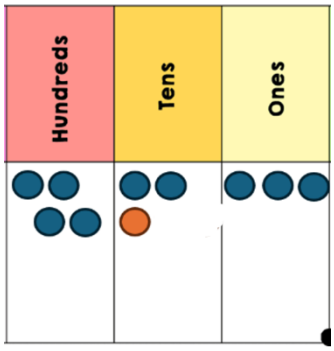
1. Dienes



2. Place value counters



3. Place value grid



4. Rule:
   1. Underline the tens column (you are adding 10 to)
   2. Add them together
   3. Everything else stays the same

$$4\underline{2}3 + \underline{1}0 = 4\underline{3}3$$

- I can find 10 less than a given number

Same as previous

- I can find 100 more than a given number

  Same as previous

- I can find 100 less than a given number

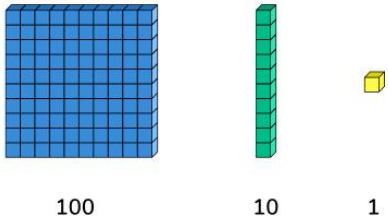
  Same as previous

- I can compare up to 2 digit numbers by looking at the tens and ones columns

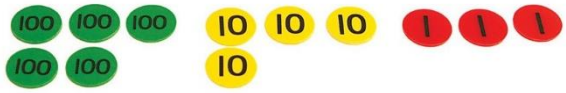
  See previous year group

- I can compare up to 3 digit numbers by looking at the hundreds, tens and ones columns.

1. Dienes



2. Place value counters



3. Place value grid

If there are more. than two numbers to compare, encourage the children to use the following method:

a. Underline the ones digit
b. Write the numbers on top of each other ensuring the ones are lined up
c. Compare the tens first
d. Compare the ones

1	7		5	3		9		3	2
1	7			5	3				
5	3			3	2				
	9			1	7				
3	2				9				

- I can compare up to 3 digit numbers using greater than (>) and less than (<) signs.

- I can order up to 2 digit numbers

- I can order up to 3 digit numbers

Same as previous method

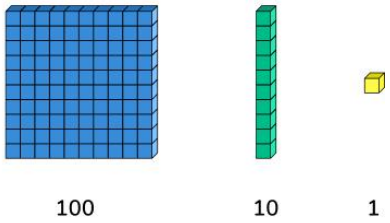
- I can partition numbers in non-standard ways

See previous year group

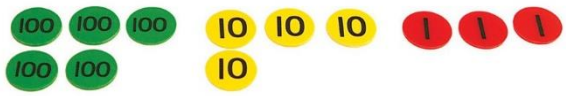
- I can partition up to 3 digit numbers in non-standard ways

Eg) 150 → 110 + 40 + 2 not 100 + 50 + 2

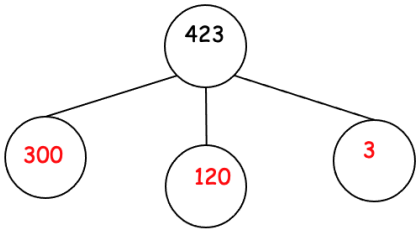
1. Dienes



2. Place value counters



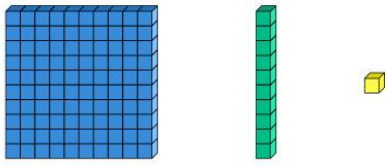
3. Part part whole model



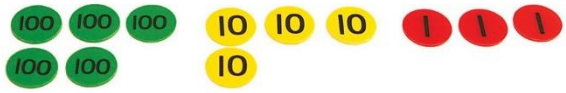
4. Write as an addition statement 423 = 300 + 120 + 3

- I can count in multiples of 50 and 100
- I can divide 100 by 2, 4, 5 and 10 equal parts

1. Dienes



2. Place value counters



3. Bar model

100			
25	25	25	25

- I can read scales in 2's, 4's, 5's and 10's

Same as previous

- I can identify multiples of 10

See previous year group

- I can identify previous and next multiple of 10 of a 2 digit number

See previous year group

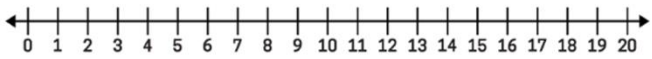
- I can identify the multiples of 10 and 100 either side of a given number

1. Number line

2. Hundred square

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

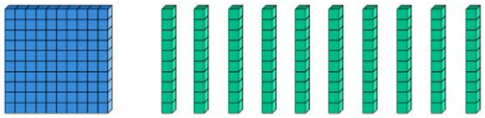
- I can position up to 3 digit numbers on a number line and reason why they are positioned there

1. Number lines with numbers on 

2. Number lines with different intervals (2, 4, 5, 10, 50, 100 etc)

3. Blank number lines

- I know tenths arise from dividing a whole into 10 equal parts

1. Dienes 

2. Bar model

1									
0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1

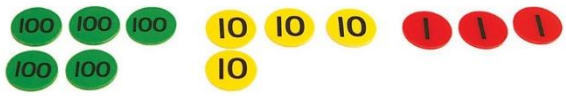
- I can place tenths on a number line

- I can recognise the repeating pattern when counting in tenths

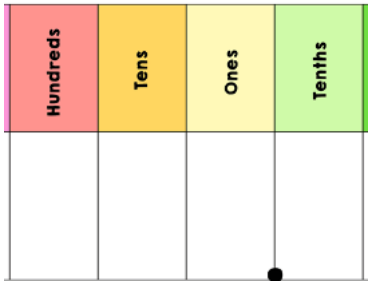
Pattern → tenths column goes up in 1s

- I can place tenths on a place value chart

- I can compare 1 decimal point numbers

1. Place value counters 

2. Place value grid



If there are more. than two numbers to compare, encourage the children to use the following method:

a. Underline the ones digit
b. Write the numbers on top of each other ensuring the ones are lined up
c. Compare the tens first
d. Compare the ones

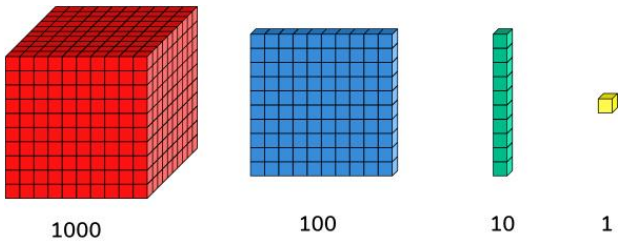
1	7		5	3		9		3	2
1	7			5	3				
5	3			3	2				
	9			1	7				
3	2				9				

Year Four:

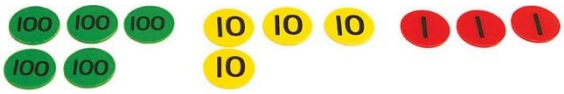
- I can recognise that a 3 digit number is made up of hundreds, tens and ones
  See previous year group

- I can recognise that a 4 digit number is made up of thousands, hundreds, tens and ones

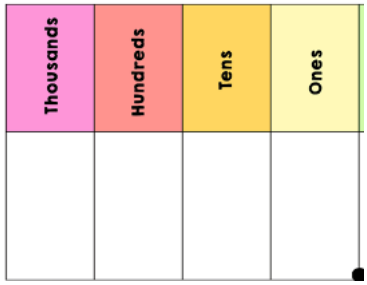
1. Dienes



2. Place value counter



3. Place value chart

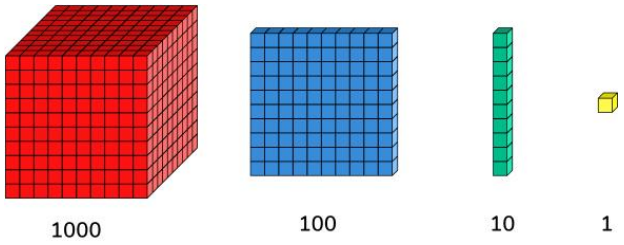


I can compose and decompose 3 digit numbers using standard partitioning

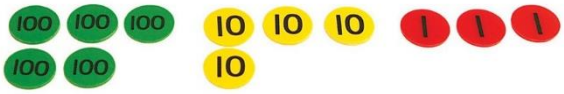
See previous year group

I can compose and decompose 4 digit numbers using standard partitioning

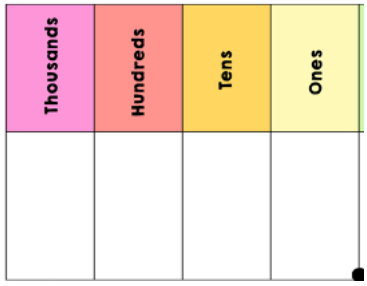
1. Dienes



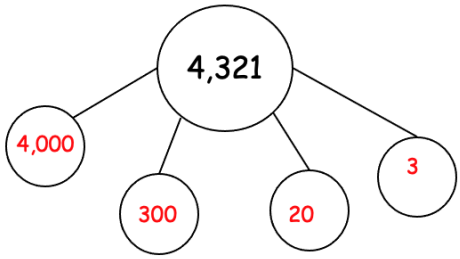
2. Place value counter



3. Place value chart



4. Part part whole model



5. Write as an addition statement → 4,321 = 4,000 + 300 + 20 + 1

- I know that 10 tens are equivalent to 1 hundred (10 x 10 = 100)
- I know that 10 hundreds are equivalent to 1 thousand (10 x 100 = 1000)
- I can read numbers up to 3 digits in digits and words
- I can read numbers up to 4 digits in digits and words
- I can write numbers up to 3 digits in digits and words
- I can write numbers up to 4 digits in digits and words
- I can add find 10 more or less than a given number

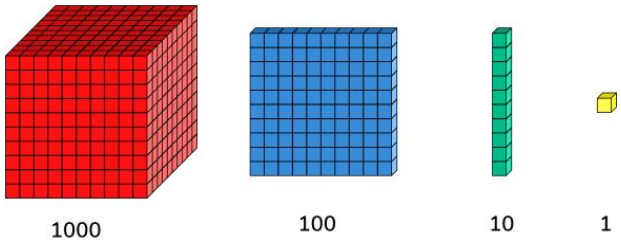
See previous year group

- I can find 100 more or less than given number

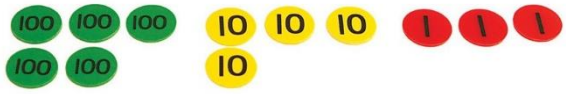
See previous year group

- I can find 1000 more than a given number

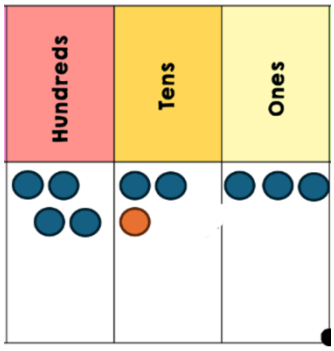
1. Dienes



2. Place value counters



3. Place value grid



4. Rule:
    4. Underline the tens column (you are adding 10 to)
    5. Add them together
    6. Everything else stays the same

$$4\underline{2}3 + \underline{1}0 = 4\underline{3}3$$

🗝 I can find 1000 less than a given number

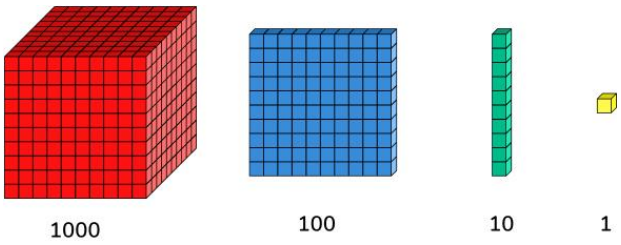
Same as previous

🗝 I can compare up to 3 digit numbers by looking at the place value of the numbers

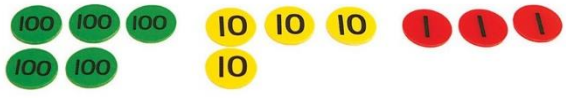
See previous year group

🗝 I can compare up to 4 digit numbers by looking at the hundreds, tens and ones columns.

1. Dienes



2. Place value counters



3. Place value grid

4. ***Rule:***

a. ***Underline the ones digit***
b. ***Write the numbers on top of each other ensuring the ones are lined up***
c. ***Compare the tens first***
d. ***Compare the ones***

1	7		5	3		9		3	2
1	7			5	3				
5	3			3	2				
	9			1	7				
3	2				9				

- I can use compare up to 4 digit numbers using greater than (>) and less than (<) signs.

Same as previous

- I can order up to 3 digit numbers

- I can order up to 4 digit numbers

Rule:

a. ***Underline the ones digit***
b. ***Write the numbers on top of each other ensuring the ones are lined up***
c. ***Compare the tens first***
d. ***Compare the ones***

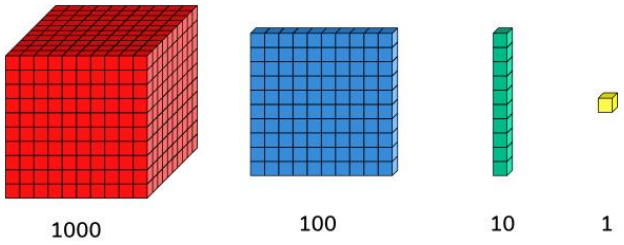
1	7		5	3		9		3	2
1	7			5	3				
5	3			3	2				
	9			1	7				
3	2				9				

- I partition up to 3 digit numbers in non-standard ways

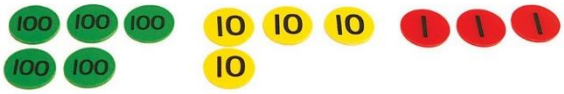
See previous year group

- I can partition up to 4 digit numbers in non-standard ways
  Eg) 1500 → 1100 + 300 + 100 not 1000 + 50

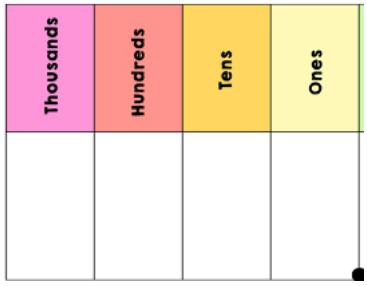
1. Dienes



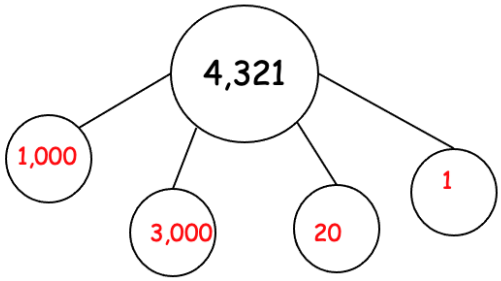
2. Place value counter



3. Place value chart



4. Part part whole model



5. Write as an addition statement → 4,321 = 1,000 + 3,000 + 300 + 20 + 1

- I can count in multiples of 50 and 100

- I can count in multiples of 25 and 1,000
- I know how to make 100 by repeatedly adding 25
- I can apply this knowledge to larger numbers

- I can divide 100 by 2, 4, 5 and 10 equal parts

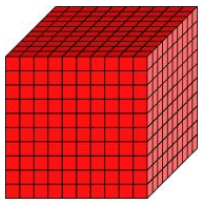
See previous year group

- I can read scales in 2's, 4's, 5's and 10's

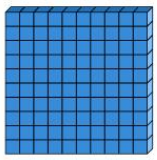
See previous year group

- I can divide numbers into equal parts

1. Dienes



1000

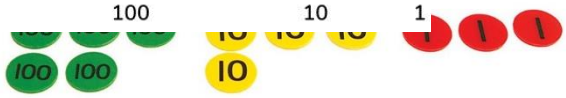


100

10

1

2. Place value counters



3. Bar model

100			
25	25	25	25

- I can read a scale using equal parts

Same as previous

- I can identify the multiples of 10 and 100 either side of a given number

3. Number line

4. Hundred square

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

- I can identify the multiples of 10, 100 and 1,000 either side of a given number

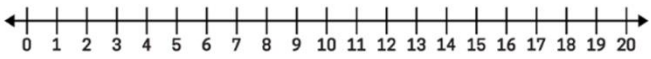
Same as previous

- I can position up to 3 digit numbers on a number line and reason why they are positioned there

  See previous year group

- I can position up to 4 digit numbers on a number line and reason why they are positioned there

  1. Number lines with numbers on

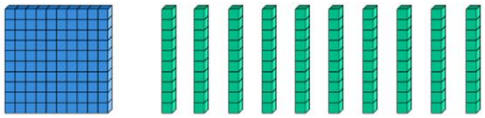


  2. Number lines with different intervals (2, 4, 5, 10, 50, 100 etc)

  3. Blank number lines

- I can understand that tenths are dividing 1 whole into 10 equal parts

  1. Dienes



  2. Bar model

1									
0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1

- I understand that 10 parts make 1 whole or 10 tenths make 1 whole

  Same as previous

- I can place tenths on a number line

- I can recognise the repeating pattern when counting in tenths

  Pattern → tenths column goes up in 1s

- I know the counting sequence for counting in decimals

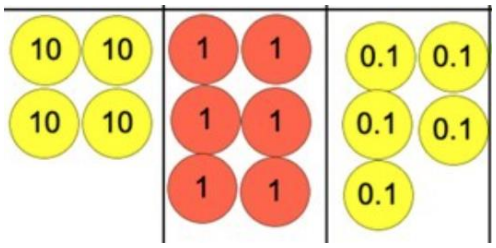
  - What happens after 0.9 → should be 1 but some children will say 0.10
  - Notice only the tenths digit changes apart from when it crosses a whole

- I can place tenths on a place value chart

- I can partition decimals into whole numbers and tenths

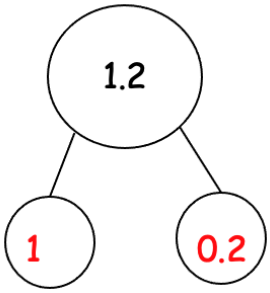
DECIMAL POINTS DO NOT HAVE THEIR OWN SQUARE BUT SIT ON THE LINE IN BETWEEN THE ONES AND TENTHS COLUMN

1. Place value counter



2. Place value chart

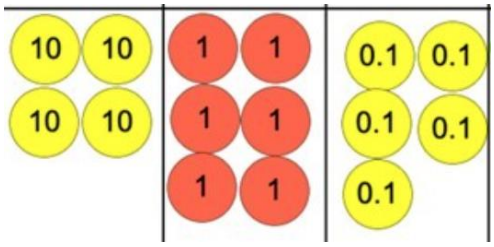
3. Part part whole model



4. Write as an addition statement → 1.2 = 1 + 0.2

I can compare numbers with 1 decimal place

1. Place value counters



2. Place value grid

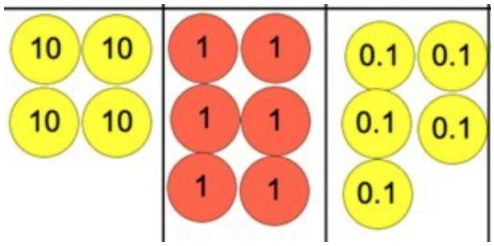
3. ***Rule:***

a. ***Underline the ones digit***
b. ***Write the numbers on top of each other ensuring the ones are lined up***
c. ***Compare the tens first***
d. ***Compare the ones***

1	7		5	3		9		3	2
1	7			5	3				
5	3			3	2				
	9			1	7				
3	2				9				

I can convert between fractions and tenths

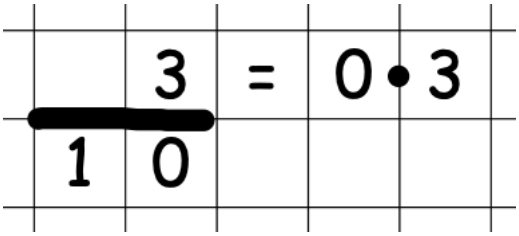
1. Place value counters



2. Place value grid

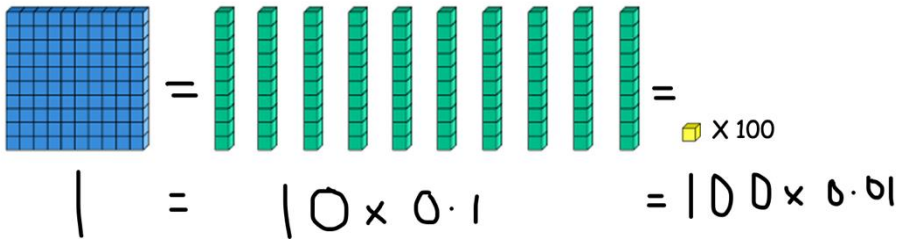
3. Written

- Line in a fraction means divide
- The fraction represents 3 ÷ 10
- 3 wholes divided into 10 equal parts

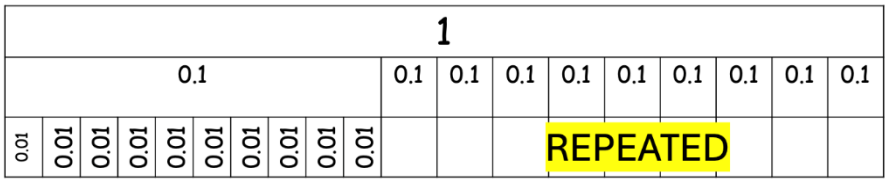


I understand that hundredths are dividing 1 whole into 100 equal parts

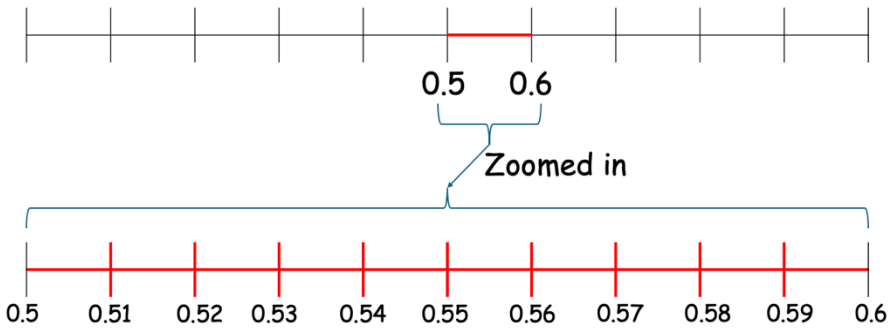
1. Dienes



2. Bar model



3. Numberline

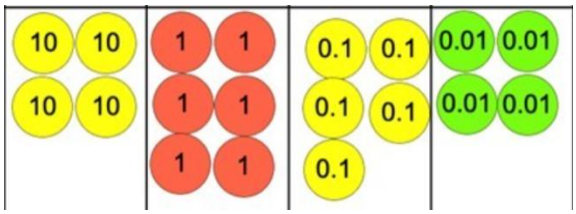


I know hundredths are dividing tenths into 10 equal parts

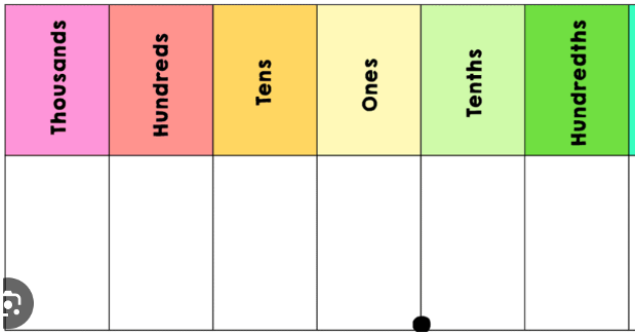
Same as previous

I can convert between fractions and hundredths

1. Place value counters



2. Place value grid



3. Written

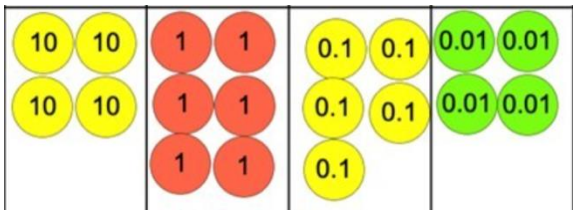
- Line in a fraction means divide
- The fraction represents 6 ÷ 100
- 6 wholes divided into 100 equal parts

$$\frac{6}{100} = 0.06$$

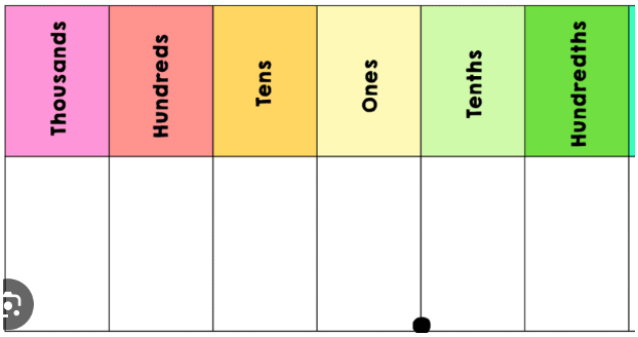
$$\frac{23}{100} = 0.23$$

I can write any decimal equivalent in whole, tenths and hundredths

1. Place value counters



2. Place value grid



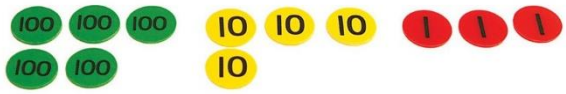
3. Written

$$1.23 = 1 + \frac{2}{10} + \frac{3}{100}$$

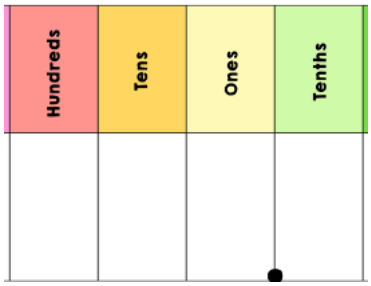
$$= 1 \frac{23}{100}$$

- I can compare numbers up to 2 decimal places

1. Place value counters



2. Place value grid



3. ***Rule:***

a. ***Underline the ones digit***
b. ***Write the numbers on top of each other ensuring the ones are lined up***
c. ***Compare the largest PV column***
d. ***Move left***

1	.	2	4		4	.	3	3	2	.	1	0	.	2	9		
			1	.	2	4					0	.	2	9			
			4	.	3						1	.	2	4			
	3		2	.	1						4	.	3				
			0	.	2	9				3	2	.	1				

- I can order numbers up to 2 decimal places

Same as previous

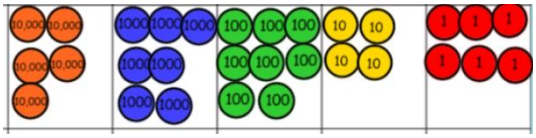
Year Five:

- I can recognise that a 4 digit number is made up of thousands, hundreds, tens and ones

See previous year group

- I can recognise that a 5 digit number is made up of ten thousands, thousands, hundreds, tens and ones

1. Place value counter

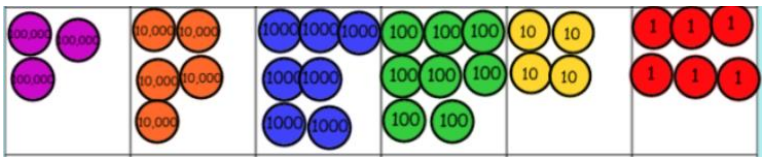


2. Place value chart

Ten Thousands	Thousands	Hundreds	Tens	Ones

- I can recognise that a 6 digit number is made up of hundred thousands, ten thousands, thousands, hundreds, tens and ones

1. Place value counter



2. Place value chart

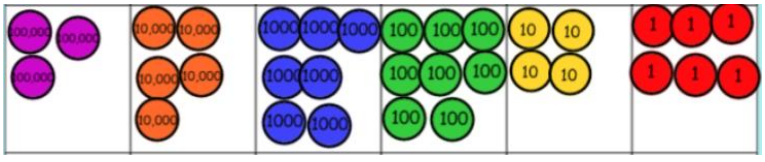
Hundred Thousands	Ten Thousands	Thousands	Hundreds	Tens	Ones

- I can compose and decompose 4 digit numbers using standard partitioning

See previous year group

- I can compose and decompose 5 and 6 digit numbers using standard partitioning

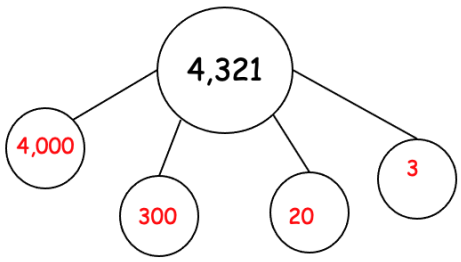
1. Place value counter



2. Place value chart

Hundred Thousands	Ten Thousands	Thousands	Hundreds	Tens	Ones

3. Part part whole model



4. Write as an addition statement → 4,321 = 4,000 + 300 + 20 + 1

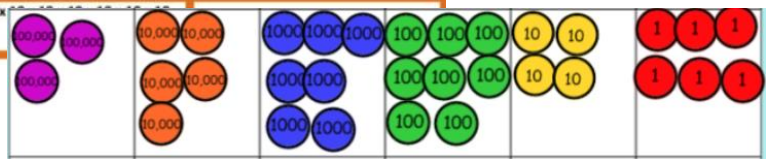
- I know that 10 hundreds are equivalent to 1 thousand (10 x 100 = 1000)
- I know that 10 thousands are equivalent to 1 ten thousand (10 x 1000 = 10,000)
- I know that 10 ten thousands are equivalent to 1 hundred thousand (10 x 10,000 = 100,000)
- I can read numbers up to 4 digits in digits and words
- I can read numbers up to 1 million in digits and words
- I can write numbers up to 4 digits in digits and words
- I can write numbers up to 1 million in digits and words
- I can find 1000 more and less than a given number

See previous year group

- I can count forwards and backwards in powers of 10 from a given number

Power	Expression	Standard Form
10^1	10	10
10^2	10 x 10	100
10^3	10 x 10 x 10	1,000
10^4	10 x 10 x 10 x 10	10,000
10^5	10 x 10 x 10 x 10 x 10	100,000
10^6	10 x 10 x 10 x 10 x 10 x 10	1,000,000
10^7	10 x 10 x 10 x 10 x 10 x 10 x 10	10,000,000
10^8	10 x 10 x 10 x 10 x 10 x 10 x 10 x 10	100,000,000
10^9	10 x 10 x 10 x	

1. Place value counters



2. Place value grid

Hundred Thousands	Ten Thousands	Thousands	Hundreds	Tens	Ones

3. Rule:
   1. Underline the column you are adding to or subtracting from
   2. Add or subtract them
   3. Everything else stays the same (unless you are crossing a boundary)

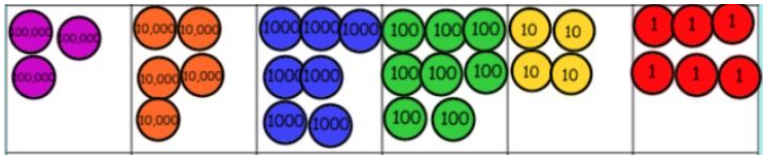
$423 + 10 = 433$

🗝 I can compare up to 4 digit numbers by looking at the hundreds, tens and ones columns.

See previous year group

🗝 I can compare up numbers up to 1,000,000 by looking at the place value columns

1. Place value counters



2. Place value grid

Hundred Thousands	Ten Thousands	Thousands	Hundreds	Tens	Ones

3. ***Rule:***

a. ***Underline the ones digit***
b. ***Write the numbers on top of each other ensuring the ones are lined up***
c. ***Compare the tens first***
d. ***Compare the ones***

1	7		5	3		9		3	2
1	7			5	3				
5	3			3	2				
	9			1	7				
3	2				9				

🗝 I can use compare up to 4 digit numbers using greater than (>) and less than (<) signs.

See previous year group

🗝 I can use compare numbers up to 1,000,000 using greater than (>) and less than (<) signs.

Same as previous

🗝 I can order up to 4 digit numbers

See previous year group

🗝 I can order numbers up to 1,000,000

Rule:

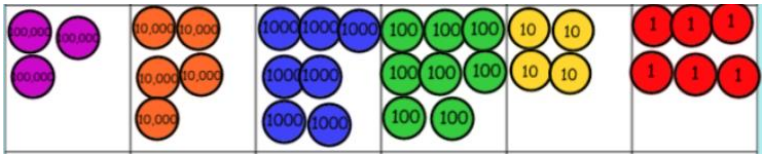
a. ***Underline the ones digit***
b. ***Write the numbers on top of each other ensuring the ones are lined up***
c. ***Compare the tens first***
d. ***Compare the ones***

1	7		5	3		9		3	2
1	7			5	3				
5	3			3	2				
	9			1	7				
3	2				9				

🗝 I can partition up to 4 digit numbers in non-standard ways
Eg) 1500 → 1100 + 300 + 100 not 1000 + 50
See previous year group

🗝 I can partition numbers up to 1,000,000 in non-standard ways
Eg) 456,421→ 100,000 + 300,000 + 56,000 + 400 + 21 not 400,000 + 50,000 + 6,000 + 400 + 20 + 1

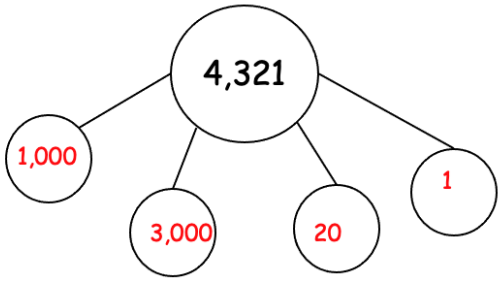
1. Place value counter



2. Place value chart

Hundred Thousands	Ten Thousands	Thousands	Hundreds	Tens	Ones

3. Part part whole model



4. Write as an addition statement → 4,321 = 1,000 + 3,000 + 300 + 20 + 1

- I can count in multiples of 25 and 1,000
- I know how to make 100 by repeatedly adding 25
- I can apply this knowledge to larger numbers

- I can divide numbers into equal parts

See previous year group

- I can read a scale using equal parts

See previous year group

- I can identify the multiples of 10, 100 and 1,000 either side of a given number

See previous year group

- I can identify the multiples of 10,000 and 100,000 either side of a given number

1. Number line

2. Hundred square

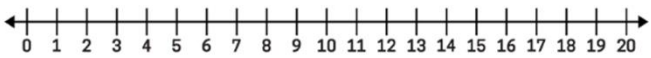
1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100

- I can position up to 4 digit numbers on a number line and reason why they are positioned there

See previous year group

- I can position numbers up to 1,000,000 on a number line and reason why they are positioned there

1. Number lines with numbers on



2. Number lines with different intervals (2, 4, 5, 10, 50, 100 etc)

3. Blank number lines

- I can understand that tenths are dividing 1 whole into 10 equal parts
  See previous year group

- I understand that 10 parts make 1 whole or 10 tenths make 1 whole
  See previous year group

- I know the counting sequence for counting in decimals
  See previous year group

- I can partition decimals into whole numbers and tenths
  See previous year group

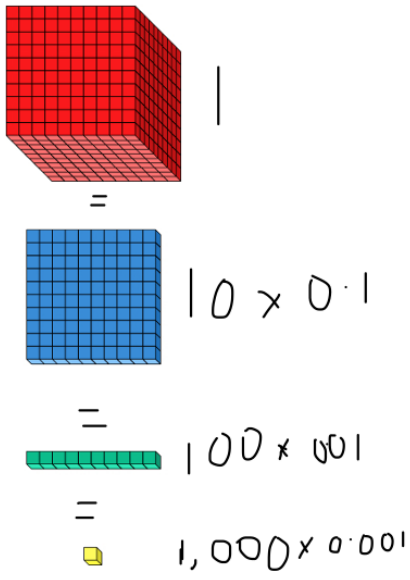
DECIMAL POINTS DO NOT HAVE THEIR OWN SQUARE BUT SIT ON THE LINE IN BETWEEN THE ONES AND TENTHS COLUMN

- I understand that hundredths are dividing 1 whole into 100 equal parts
  See previous year group

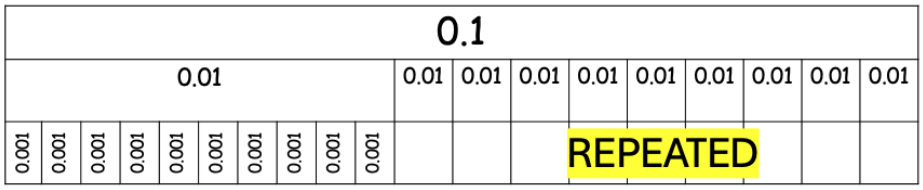
- I know hundredths are dividing tenths into 10 equal parts
  See previous year group

- I understand that thousandths are dividing 1 whole into 1,000 equal parts

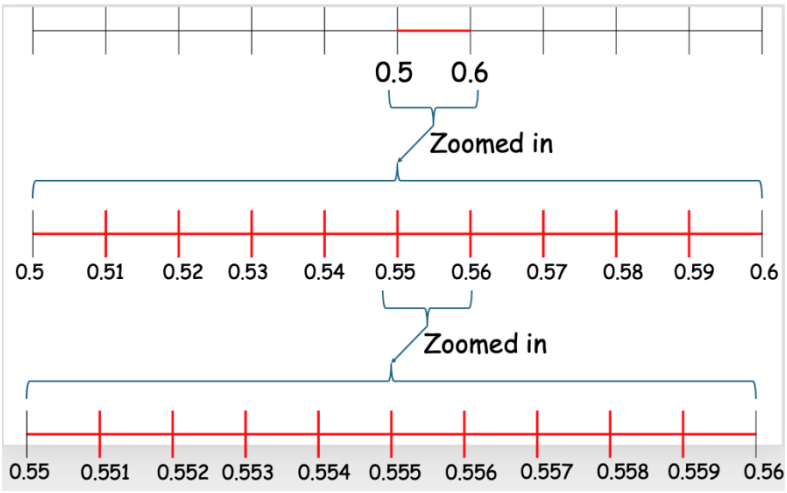
1. Dienes



2. Bar model



3. Numberline

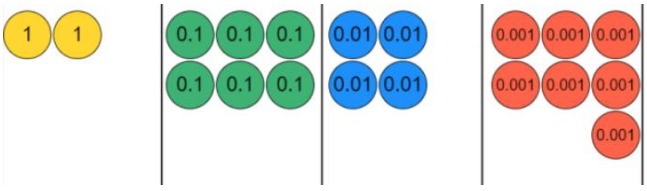


- I can apply my knowledge of decimals to find relationships
  E.g.
  1 tenth = 10 hundredths
  1 tenth = 100 thousandths

- I can write any decimal equivalent in whole, tenths and hundredths
  See previous year group

- I can partition a number with 3 decimal places using standard partitioning

1. Place value counters

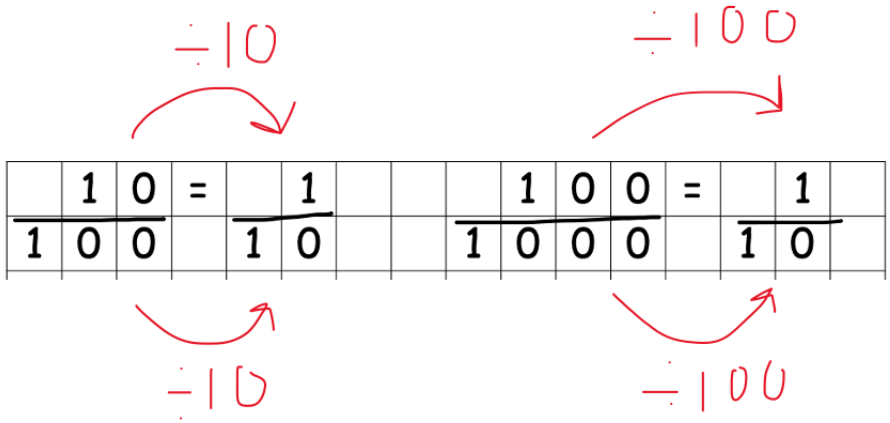


2. Place value grid

M	HTh	TTh	Th	H	T	O	t	h	th
Millions	Hundred Thousands	Ten Thousands	Thousands	Hundreds	Tens	Ones	Tenths	Hundredths	Thousandths
1 000 000	100 000	10 000	1000	100	10	1	0.1	0.01	0.001

I know the powers of 10 with decimals

Rule → Whatever we do to the top (numerator), we do the same to the bottom (denominator)



I can convert between fractions and tenths

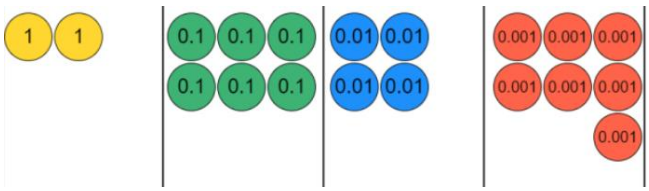
See previous year group

I can convert between fractions and hundredths

See previous year group

I can convert between fractions and thousandths

1. Place value counters



2. Place value grid

M Millions 1 000 000	HTh Hundred Thousands 100 000	TTh Ten Thousands 10 000	Th Thousands 1000	H Hundreds 100	T Tens 10	O Ones 1	t Tenths 0.1	h Hundredths 0.01	th Thousandths 0.001

3. Written

- Line in a fraction means divide
- The fraction represents 3 ÷ 1,000
- 3 wholes divided into 1,000 equal parts

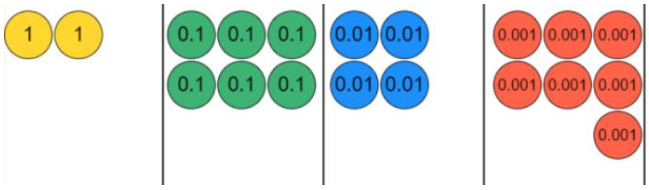
$$\frac{3}{1000} = 0.003$$

$$\frac{65}{1000} = 0.065$$

$$\frac{542}{1000} = 0.542$$

I can write a numbers up to 3 decimal places as fractions

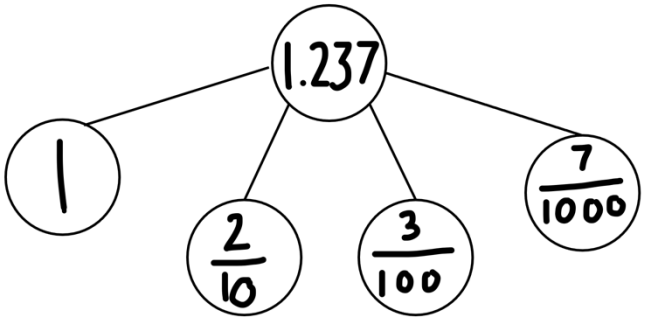
1. Place value counters



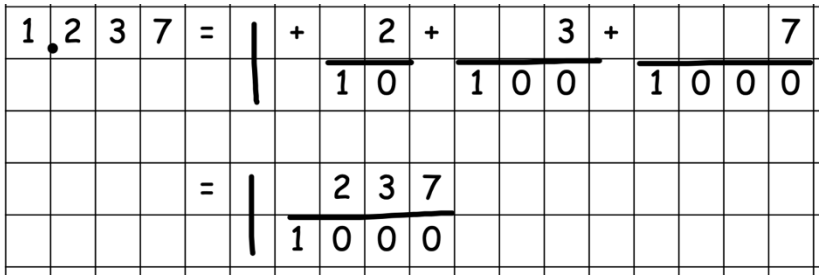
2. Place value grid

M Millions 1 000 000	HTh Hundred Thousands 100 000	TTh Ten Thousands 10 000	Th Thousands 1000	H Hundreds 100	T Tens 10	O Ones 1	t Tenths 0.1	h Hundredths 0.01	th Thousandths 0.001

3. Part part whole model



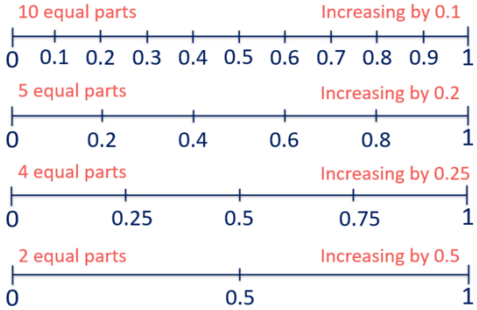
4. Written as an addition statement



- I can position numbers up to 3 decimal places on a number line

1. Number lines with numbers on

2. Number lines with different intervals (0.1, 0.01, 0.001, 0.2, 0.5 etc)



3. Blank number line

- I can compare numbers with 1 decimal place

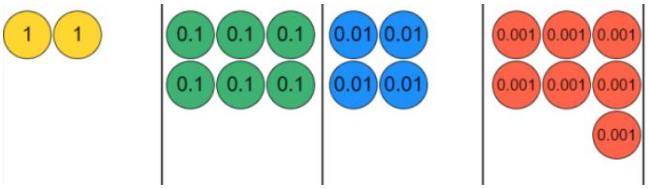
See previous year group

- I can compare numbers up to 2 decimal places

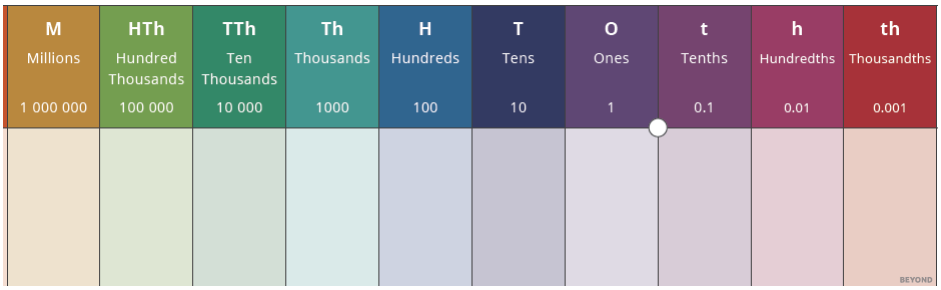
See previous year group

- I can compare numbers with 3 decimal places

1. Place value counters



2. Place value grid



3. ***Rule:***

a. ***Underline the ones digit***
b. ***Write the numbers on top of each other ensuring the ones are lined up***
c. ***Compare the largest PV column***
d. ***Move left***

1	.	2	4		4	.	3		3	2	.	1	0	.	2	9
			1	.	2	4						0	.	2	9	
			4	.	3							1	.	2	4	
		3	2	.	1							4	.	3		
			0	.	2	9					3	2	.	1		

I can compare numbers up to 3 decimal places

Same as previous

Ensure children are given examples with a mixture of integers, 1 d.p., 2 d.p. and d.p.

1	.	7	6		1	.	4	9	5		2		3	.	4
1	.	7	6							1	.	4	9	5	
1	.	4	9	5						1	.	7	6		
2	.									2	.				
3	.	4								3	.	4			

Ensure children are given examples with 0 as a place holder.

3	4	.	0	1		1	.	0	3		2	.	4		3	0	.	0	1
3	4	.	0	1							1	.	0	3					
	1	.	0	3							2	.	4						
	2	.	4							3	0	.	0	1					
3	0	.	0	1						3	4	.	0	1					

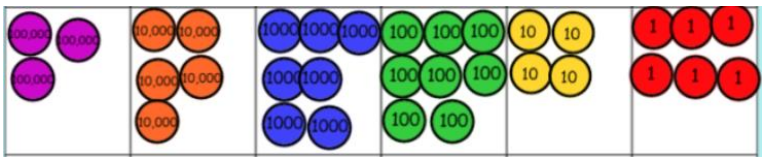
Year Six:

- I can recognise that a 5 digit number is made up of ten thousands, thousands, hundreds, tens and ones
  See previous year group

- I can recognise that a 6 digit number is made up of hundred thousands, ten thousands, thousands, hundreds, tens and ones
  See previous year group

- I can recognise that a 7 digit number is made up of millions, hundred thousands, ten thousands, thousands, hundreds, tens and ones

1. Place value counter



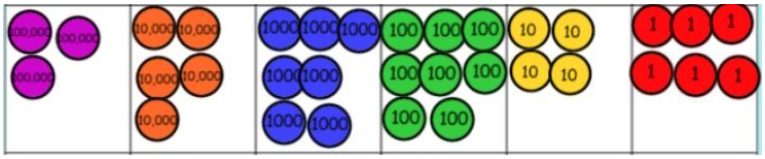
2. Place value chart

Millions	Hundred Thousands	Ten Thousands	Thousands	Hundreds	Tens	Ones

- I can compose and decompose 5 and 6 digit numbers using standard partitioning
  See previous year group

- I can compose and decompose numbers up to 10,000,000 using standard partitioning

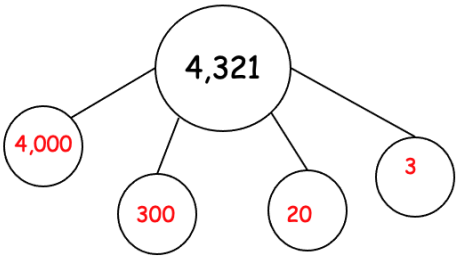
1. Place value counter



2. Place value chart

Millions	Hundred Thousands	Ten Thousands	Thousands	Hundreds	Tens	Ones

3. Part part whole model

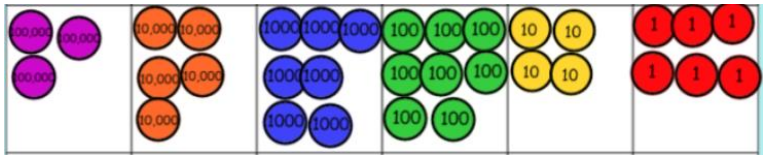


4. Write as an addition statement → 4,321 = 4,000 + 300 + 20 + 1

- I know that 10 thousands are equivalent to 1 ten thousand (10 x 1000 = 10,000)
- I know that 10 ten thousands are equivalent to 1 hundred thousand (10 x 10,000 = 100,000)
- I know that 10 hundred thousands are equivalent to 1 million (10 x 100,000 = 100,000)
- I can read numbers up to 1 million in digits and words
- I can read numbers up to 10 million in digits and words
- I can write numbers up to 1 million in digits and words
- I can write numbers up to 10 million in digits and words
- I can count forwards and backwards in powers of 10 from a given number

Power	Expression	Standard Form
10^1	10	10
10^2	10 x 10	100
10^3	10 x 10 x 10	1,000
10^4	10 x 10 x 10 x 10	10,000
10^5	10 x 10 x 10 x 10 x 10	100,000
10^6	10 x 10 x 10 x 10 x 10 x 10	1,000,000
10^7	10 x 10 x 10 x 10 x 10 x 10 x 10	10,000,000
10^8	10 x 10 x 10 x 10 x 10 x 10 x 10 x 10	100,000,000
10^9	10 x 10 x 10 x 10 x 10 x 10 x 10 x 10 x 10	1,000,000,000

1. Place value counters



2. Place value grid

Millions	Hundred Thousands	Ten Thousands	Thousands	Hundreds	Tens	Ones

3. Rule:
   4. Underline the column you are adding to or subtracting from
   5. Add or subtract them
   6. Everything else stays the same (unless you are crossing a boundary)

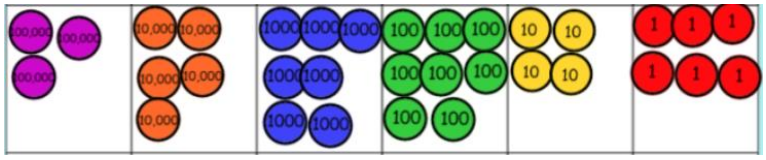
$$423 + 10 = 433$$

- I can compare up numbers up to 1,000,000 by looking at the place value columns

See previous year group

- I can compare up numbers up to 10,000,000 by looking at the place value columns

1. Place value counters



2. Place value grid

Millions	Hundred Thousands	Ten Thousands	Thousands	Hundreds	Tens	Ones

3. ***Rule:***

a. ***Underline the ones digit***
b. ***Write the numbers on top of each other ensuring the ones are lined up***
c. ***Compare the tens first***
d. ***Compare the ones***

1	7		5	3		9		3	2
1	7			5	3				
5	3			3	2				
	9			1	7				
3	2				9				

- I can use compare numbers up to 1,000,000 using greater than (>) and less than (<) signs.

- I can use compare numbers up to 1,000,000 using greater than (>) and less than (<) signs.
  Same as previous

- I can order numbers up to 1,000,000
  See previous year group

- I can order numbers up to 10,000,000

Rule:

a. ***Underline the ones digit***
b. ***Write the numbers on top of each other ensuring the ones are lined up***
c. ***Compare the tens first***
d. ***Compare the ones***

1	7		5	3		9		3	2
1	7			5	3				
5	3			3	2				
	9			1	7				
3	2				9				

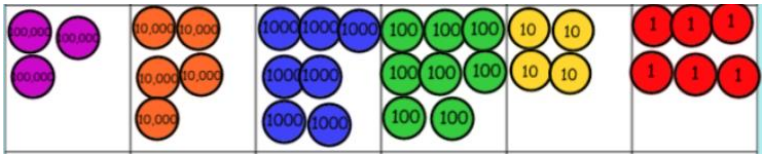
I can partition numbers up to 1,000,000 in non-standard ways

See previous year group

I can partition numbers up to 10,000,000 in non-standard ways

Eg) 456,421→ 100,000 + 300,000 + 56,000 + 400 + 21 not 400,000 + 50,000 + 6,000 + 400 + 20 + 1

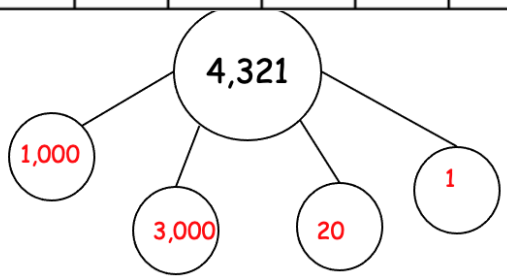
1. Place value counter



2. Place value chart

Millions	Hundred Thousands	Ten Thousands	Thousands	Hundreds	Tens	Ones

3. Part part whole model



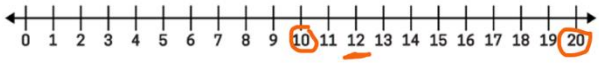
4. Write as an addition statement → 4,321 = 1,000 + 3,000 + 300 + 20 + 1

- I can identify the multiples of 10,000 and 100,000 either side of a given number

  See previous year group

- I can identify the multiples of 1,000,000 either side of a given number

  1. Number line



  2. Hundred square

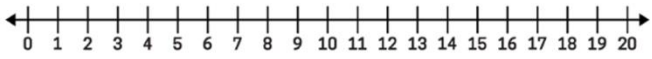
1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100

- I can position numbers up to 1,000,000 on a number line and reason why they are positioned there

  See previous year group

- I can position numbers up to 10,000,000 on a number line and reason why they are positioned there

  1. Number lines with numbers on

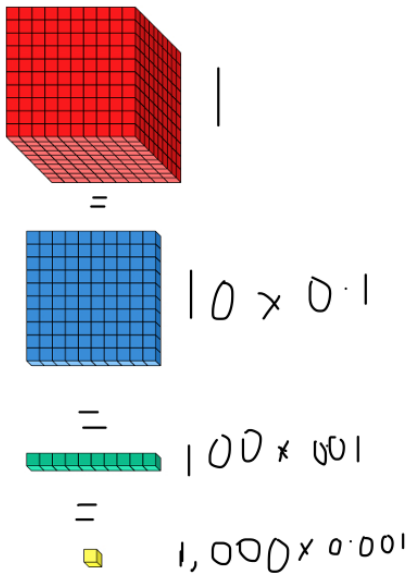


  2. Number lines with different intervals (2, 4, 5, 10, 50, 100 etc)

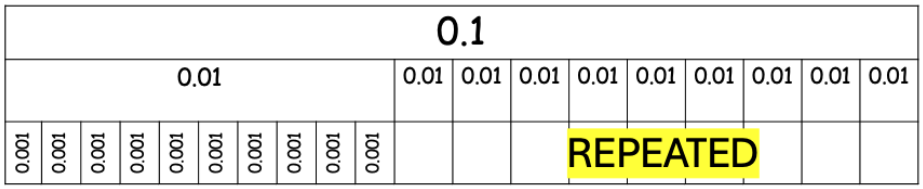
  3. Blank number lines

- I understand that thousandths are dividing 1 whole into 1,000 equal parts

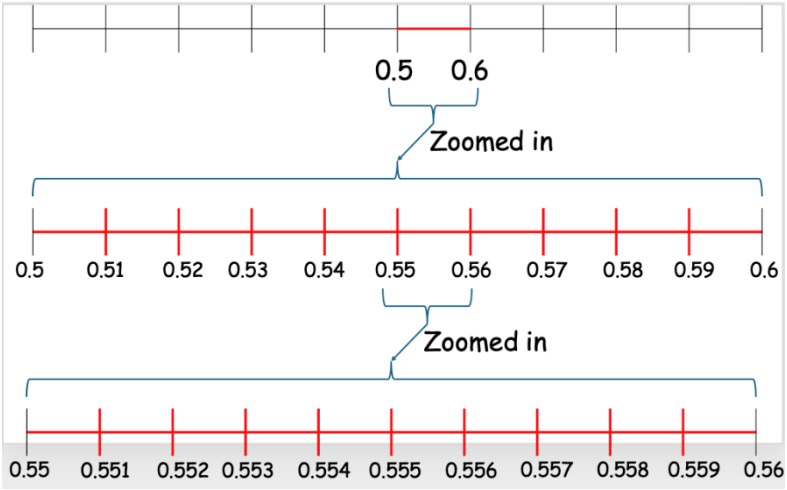
1. Dienes



2. Bar model



3. Numberline



🗝 I can apply my knowledge of decimals to find relationships

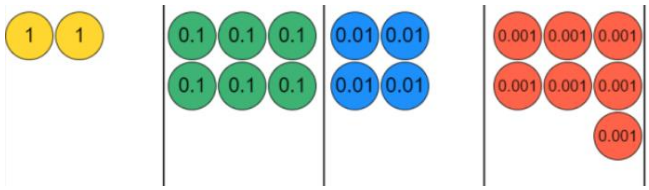
E.g.

1 tenth = 10 hundredths

1 tenth = 100 thousandths

I can partition a number with 3 decimal places using standard partitioning

1. Place value counters

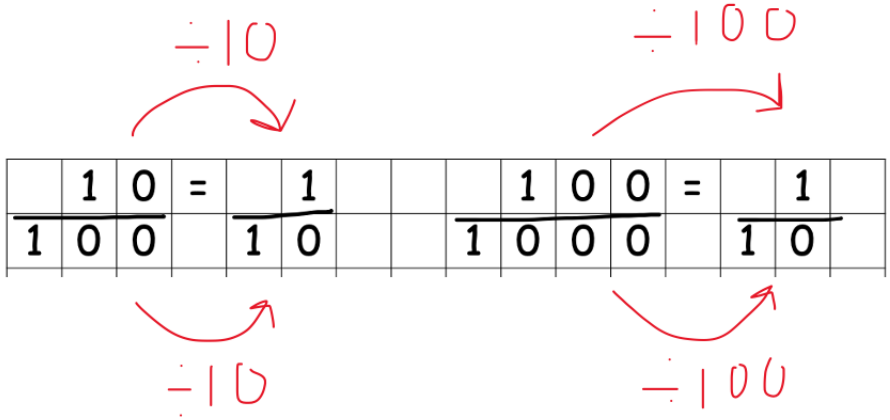


2. Place value grid

M	HTh	TTh	Th	H	T	O	t	h	th
Millions	Hundred Thousands	Ten Thousands	Thousands	Hundreds	Tens	Ones	Tenths	Hundredths	Thousandths
1 000 000	100 000	10 000	1000	100	10	1	0.1	0.01	0.001

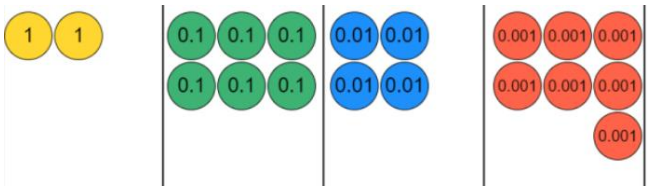
I know the powers of 10 with decimals

Rule → Whatever we do to the top (numerator), we do the same to the bottom (denominator)

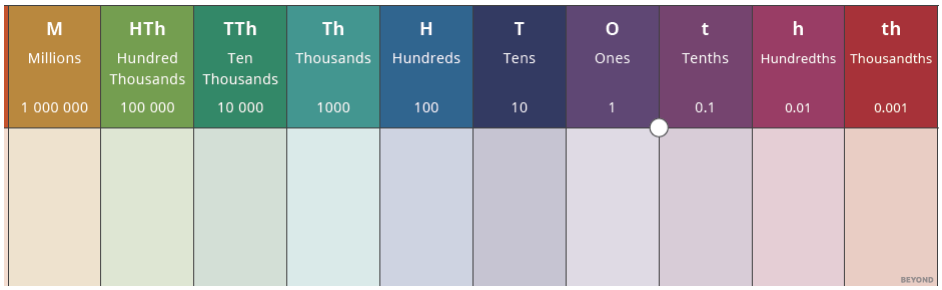


I can convert between fractions and thousandths

1. Place value counters



2. Place value grid



3. Written

- Line in a fraction means divide
- The fraction represents 3 ÷ 1,000
- 3 wholes divided into 1,000 equal parts

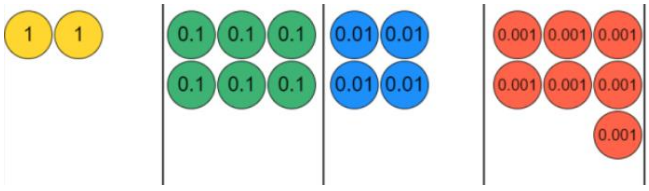
$$\frac{3}{1000} = 0.003$$

$$\frac{65}{1000} = 0.065$$

$$\frac{542}{1000} = 0.542$$

I can write numbers up to 3 decimal places as fractions

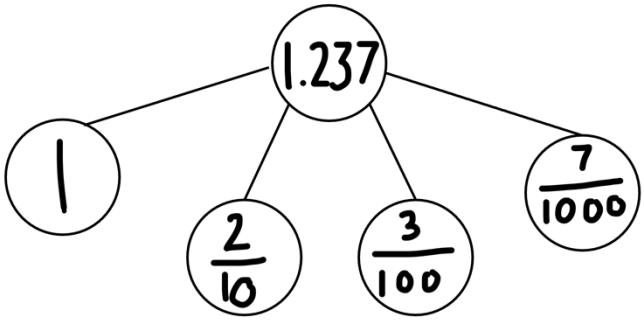
1. Place value counters



2. Place value grid

M	HTh	TTh	Th	H	T	O	t	h	th
Millions	Hundred Thousands	Ten Thousands	Thousands	Hundreds	Tens	Ones	Tenths	Hundredths	Thousandths
1 000 000	100 000	10 000	1000	100	10	1	0.1	0.01	0.001

3. Part part whole model



4. Written as an addition statement

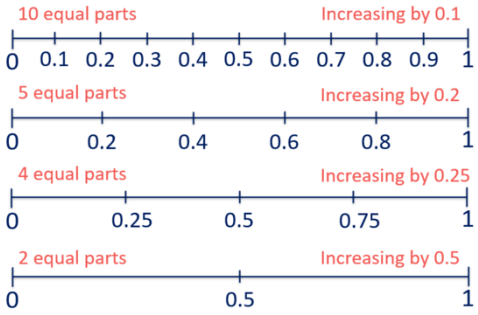
1	2	3	7	=	1	+		2	+			3	+				7
					1		1	0		1	0	0		1	0	0	0
				=	1			2	3	7							
					1		1	0	0	0							

I can position numbers up to 3 decimal places on a number line

1. Number lines with numbers on

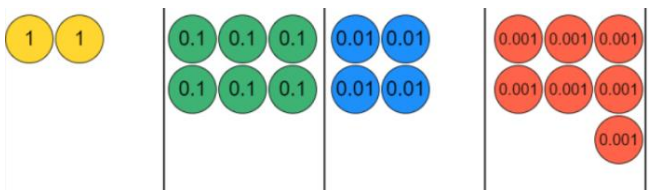
2. Number lines with different intervals (0.1, 0.01, 0.001, 0.2, 0.5 etc)

3. Blank number line



I can compare numbers with 3 decimal places

1. Place value counters



2. Place value grid

M Millions 1 000 000	HTh Hundred Thousands 100 000	TTh Ten Thousands 10 000	Th Thousands 1000	H Hundreds 100	T Tens 10	O Ones 1	t Tenths 0.1	h Hundredths 0.01	th Thousandths 0.001

3. ***Rule:***

a. ***Underline the ones digit***
b. ***Write the numbers on top of each other ensuring the ones are lined up***
c. ***Compare the largest PV column***
d. ***Move left***

1	.	2	4		4	.	3		3	2	.	1		
		1	.	2	4					0	.	2	9	
		4	.	3						1	.	2	4	
	3	2	.	1						4	.	3		
		0	.	2	9				3	2	.	1		

I can compare numbers up to 3 decimal places

Ensure children are given examples with a mixture of integers, 1 d.p., 2 d.p. and d.p.

1	.	7	6		1	.	4	9	5		2		3	.	4
1	.	7	6							1	.	4	9	5
1	.	4	9	5						1	.	7	6	
2	.									2	.			
3	.	4								3	.	4		

Ensure children are given examples with 0 as a place holder.

3	4	.	0	1		1	.	0	3		2	.	4		3	0	.	0	1
3	4	.	0	1							1	.	0	3					
	1	.	0	3							2	.	4						
	2	.	4							3	0	.	0	1					
3	0	.	0	1						3	4	.	0	1					