

Mathematics progression of concepts - Year 2
Warren Academy
A L.E.A.D. Academy

## Number and place value

In year 1, I have learnt...

## Counting

- to count to and across 100, forwards and backwards, beginning with 0 or 1 , or from any given number
-to count, read and write numbers to 100 in numerals; count in multiples of twos, fives and tens
-to identify one more and one less of a given number


## Comparing numbers

-to use the language of: equal to, more than, less than (fewer), most, least
Identifying, representing and estimating
numbers
-to identify and represent numbers using
objects and pictorial representations
including the number line
objects and pictorial representations
including the number line

Reading and writing numbers -to read and write numbers from 1 to 20 in numerals and words.

Representations and manipulatives

In year 2, I am learning...

## Counting

-to count in steps of 2,3 , and 5 from 0 , and in tens from any number, forward or backward

## Comparing numbers

-to compare and order numbers from 0 up to 100 ; use $<,>$ and $=$ signs

## Identifying, representing and estimating

 numbers-to identify, represent and estimate numbers using different representations, including the number line

## Reading and writing numbers

-to read and write numbers to at least 100 in numerals and in words

## Understanding place value

-to recognise the place value of each digit in a two-digit number (tens, ones)

In year 3, I will learn...

## Counting

-to count from 0 in multiples of $4,8,50$ and 100
-to find 10 or 100 more or less than a given number

## Comparing numbers

-to compare and order numbers up to 1 000

> Identifying, representing and estimating numbers
> -to identify, represent and estimate numbers using different representations

## Reading and writing numbers

-to read and write numbers up to 1000 in numerals and in words

## Understanding place value

-to recognise the place value of each digit in a three-digit number (hundreds, tens, ones)

## In my future I can...

## Across the curriculum

-science - understanding data
-DT - taking measurements
-PE - keeping score, measuring, angles -geography - coordinates, maps -computing - databases, coding

## Life skills

-shopping and budgeting
-critical thinking
-playing sport
-map reading
-interpreting statistics
-working with computers

## Careers

-shop worker
-bank cashier
-architect
-doctor
-nurse
-teacher
-computer programmer




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Mathematics progression of concepts - Year 3

## Number and place value

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In year 2, I have learnt...

## Counting

-to count in steps of 2,3 , and 5 from 0 , and in tens from any number, forward or backward

## Comparing numbers

-to compare and order numbers from 0 up to 100; use <, > and = signs

## Identifying, representing and estimating

 numbers-to identify, represent and estimate numbers using different representations, including the number line

## Reading and writing numbers -to read and write numbers to at least <br> 100 in numerals and in words

## Understanding place value <br> -to recognise the place value of each digit <br> in a two-digit number (tens, ones)

## Representations and manipulatives

| $100 s$ | $10 s$ | $1 s$ |
| :--- | :--- | :--- |
| $\bigcirc \bigcirc \bigcirc \bigcirc$ | $\bigcirc$ | $\bigcirc$ |
| $\bigcirc$ |  |  |

In year 3, I am learning...

## Counting

-to count from 0 in multiples of $4,8,50$ and 100
-to find 10 or 100 more or less than a given number

## Comparing numbers

-to compare and order numbers up to 1 000

> Identifying, representing and estimating numbers
> -to identify, represent and estimate numbers using different representations

## Reading and writing numbers

-to read and write numbers up to 1000 in numerals and in words

## Understanding place value

-to recognise the place value of each digit in a three-digit number (hundreds, tens, ones)


In year 4, I will learn...

## Counting

-to count backwards through zero to include negative numbers
-to count in multiples of 6, 7, 9, 25 and 1 000

- find 1000 more or less than a given number


## Comparing numbers

-to order and compare numbers beyond 1 000

## Identifying, representing and estimating numbers <br> -to identify, represent and estimate numbers using different representations

## Reading and writing numbers

-to read Roman numerals to 100 (I to C) and know that over time, the numeral system changed to include the concept of zero and place value

## Understanding place value

-to recognise the place value of each digit in a four-digit number (thousands, hundreds, tens, and ones)

## Key vocabulary:

more than less than relationship equal to most least few fewer fewest odd even ones tens hundreds thousands digit greater lesser compare order value between numeral figure greater than less than partition exchange Roman numerals

## In my future I can...

## Across the curriculum

-science - understanding data
-DT - taking measurements
-PE - keeping score, measuring, angles -geography - coordinates, maps
-computing - databases, coding

## Life skills

-shopping and budgeting -critical thinking
-playing sport
-map reading
-interpreting statistics
-working with computers

## Careers

-shop worker
-bank cashier
-architect
-doctor
-nurse
-teacher
-computer programmer


## Key vocabulary:

## Number and place value

number more than less than count equal to the same as most least few fewer fewest odd even ones tens hundreds thousands ten thousands

## Warren Academy <br> A L.E.A.D. Academy

In year 3, I have learnt...

## Counting

-to count from 0 in multiples of $4,8,50$ and 100
-to find 10 or 100 more or less than a given number

## Comparing numbers

-to compare and order numbers up to 1 000

Identifying, representing and estimating numbers
-to identify, represent and estimate
numbers using different representations

## Reading and writing numbers

-to read and write numbers up to 1000 in numerals and in words

## Understanding place value

-to recognise the place value of each digit in a three-digit number (hundreds, tens, ones)

## Representations and manipulatives

In year 4, I am learning...

## Counting

-to count backwards through zero to include negative numbers
-to count in multiples of $6,7,9,25$ and 1 000

- find 1000 more or less than a given number


## Comparing numbers

-to order and compare numbers beyond 1 000

## Identifying, representing and estimating numbers <br> -to identify, represent and estimate

numbers using different representations

## Reading and writing numbers

-to read Roman numerals to 100 (I to C) and know that over time, the numeral system changed to include the concept of zero and place value

## Understanding place value

-to recognise the place value of each digit
in a four-digit number (thousands,
hundreds, tens, and ones)

In year 5, I will learn...

## Counting

-to interpret negative numbers in context, count forwards and backwards with positive and negative whole numbers, including through zero
-to count forwards or backwards in steps of powers of 10 for any given number up to 1000000

## Comparing numbers

-to read, write, order and compare numbers to at least 1000000 and determine the value of each digit (appears also in Reading and Writing Numbers)

## Reading and writing numbers

 -to read, write, order and compare numbers to at least 1000000 and determine the value of each digit (appears also in Comparing Numbers)-to read Roman numerals to 1000 (M) and recognise years written in Roman numerals

## Understanding place value -to read, write, order and compare numbers to at least 1000000 and

 determine the value of each digit
## In my future I can...

## Across the curriculum

-science - understanding data
-DT - taking measurements
-PE - keeping score, measuring, angles -geography - coordinates, maps -computing - databases, coding

## Life skills

-shopping and budgeting
-critical thinking
-playing sport
-map reading
-interpreting statistics
-working with computers

## Careers

-shop worker
-bank cashier
-architect
-doctor
-nurse
-teacher
-computer programmer


Mathematics progression of concepts - Year 5

## Key vocabulary:

## Number and place value

number more than less than count equal to the same as most least few fewer fewest odd even ones tens hundreds thousands ten thousands

In year 4, I have learnt...

## Counting

-to count backwards through zero to include negative numbers
-to count in multiples of 6, 7, 9, 25 and 1 000

- find 1000 more or less than a given number


## Comparing numbers

-to order and compare numbers beyond 1 000

## Identifying, representing and estimating

 numbers-to identify, represent and estimate numbers using different representations

## Reading and writing numbers

-to read Roman numerals to 100 (I to C) and know that over time, the numeral system changed to include the concept of zero and place value

## Understanding place value

-to recognise the place value of each digit in a four-digit number (thousands,
hundreds, tens, and ones)

Representations and manipulatives


In year 5, I am learning...

## Counting

-to interpret negative numbers in context, count forwards and backwards with positive and negative whole numbers, including through zero
-to count forwards or backwards in steps of powers of 10 for any given number up to 1000000

## Comparing numbers

-to read, write, order and compare numbers to at least 1000000 and determine the value of each digit (appears also in Reading and Writing Numbers)

## Reading and writing numbers

 -to read, write, order and compare numbers to at least 1000000 and determine the value of each digit (appears also in Comparing Numbers)-to read Roman numerals to 1000 (M) and recognise years written in Roman numerals

## Understanding place value

 -to read, write, order and compare numbers to at least 1000000 and determine the value of each digitIn year 6, I will learn...

## Counting

-to use negative numbers in context, and calculate intervals across zero

## Comparing numbers

-to read, write, order and compare numbers up to
-to compare numbers up to 10000000 and determine the value of each digit (appears also in Reading and Writing Numbers)

## Reading and writing numbers

-to read, write, order and compare
numbers up to
10000000 and determine the value of each digit

## Understanding place value

-to read, write, order and compare numbers up to
10000000 and determine the value of each digit (appears also in Reading and Writing Numbers)

In my future I can...

## Across the curriculum

-science - understanding data DT - taking measurements -PE - keeping score, measuring, angles -geography - coordinates, maps -computing - databases, coding

## Life skills

-shopping and budgeting -critical thinking
-playing sport
-map reading
-interpreting statistics
-working with computers

## Careers

-shop worker
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-nurse
-teacher
-computer programmer


## Mathematics progression of concepts - year 6

## Key vocabulary:

## Number and place value

number more than less than count equal to the same as most least few fewer fewest odd even ones tens hundreds thousands ten thousands hundred thousands round digit greater lesser compare order value between positive negative greater than less than partition exchange recombine

In year 5, I have learnt..

## Counting

-to interpret negative numbers in context, count forwards and backwards with positive and negative whole numbers, including through zero
-to count forwards or backwards in steps of powers of 10 for any given number up to 1000000

## Comparing numbers

-to read, write, order and compare numbers to at least 1000000 and determine the value of each digit (appears also in Reading and Writing Numbers)

## Reading and writing numbers

-to read, write, order and compare numbers to at least 1000000 and determine the value of each digit (appears also in Comparing Numbers)

## Understanding place value

-to read, write, order and compare numbers to at least 1000000 and determine the value of each digit

In year 6, I am learning...

## Counting

-to use negative numbers in context, and calculate intervals across zero

## Comparing numbers

-to read, write, order and compare numbers up to
-to compare numbers up to 10000 000 and determine the value of each digit (appears also in Reading and Writing Numbers)

## Reading and writing numbers

-to read, write, order and compare numbers up to
10000000 and determine the value of each digit

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Understanding place value
-to read, write, order and compare
numbers up to
10000000 and determine the value
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In KS3, I will learn...
-to understand and use place value for decimals, measures and integers of any size
-to order positive and negative integers, decimals and fractions -to use the number line as a model for ordering real numbers
-to use symbols such as $=, \neq, \leq, \geq$ -to round number and measures to an appropriate degree of accuracy -to use approximation through rounding to estimate answers -to appreciate the infinite nature of the sets of integers, real and rational numbers

## Representations and manipulatives



## In my future I can...

## Across the curriculum

-science - understanding data
-DT - taking measurements
-PE - keeping score, measuring, angles
-geography - coordinates, maps -computing - databases, coding

## Life skills

-shopping and budgeting
critical thinking
-playing sport
-map reading
-interpreting statistics
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## Careers

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-nurse
-teacher

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-computer programmer


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