

# Year 4

## Curriculum Overview

### 2018 - 2019

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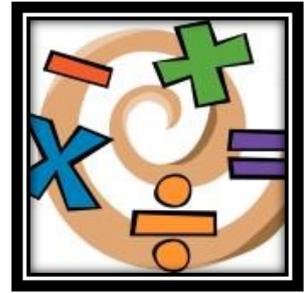
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# Numeracy

## Autumn:

### *Number - number and place value*

- order and compare numbers beyond 1000
- find 1000 more or less than a given number
- count in multiples of 6, 7, 9, 25 and 1000
- count backwards through zero to include negative numbers
- recognise the place value of each digit in a four-digit number (thousands, hundreds, tens, and ones)
- solve number and practical problems that involve all of the above and with increasingly large positive numbers
- 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.



### *Number - addition and subtraction*

- add and subtract numbers with up to 4 digits using the formal written methods of columnar addition and subtraction where appropriate
- solve addition and subtraction two-step problems in contexts, deciding which operations and methods to use and why
- estimate and use inverse operations to check answers to a calculation

### *Number – multiplication and division*

- recall multiplication and division facts for multiplication tables up to  $12 \times 12$
- use place value, known and derived facts to multiply and divide mentally, including: multiplying by 0 and 1; dividing by 1; multiplying together three numbers
- multiply two-digit and three-digit numbers by a one-digit number using formal written layout
- find the effect of dividing a one- or two-digit number by 10 and 100, identifying the value of the digits in the answer as ones, tenths and hundredths
- recognise and use factor pairs and commutativity in mental calculations

## Measurement

- estimate, compare and calculate different measures, including money in pounds and pence
- convert between different units of measure [for example, kilometre to metre; hour to minute]

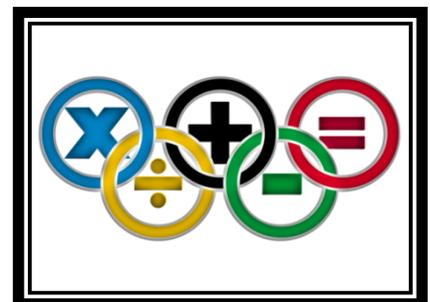
## Spring:

### *Number fractions (including decimals)*

- recognise and write decimal equivalents to  $\frac{1}{4}$ ,  $\frac{1}{2}$ ,  $\frac{3}{4}$
- recognise and write decimal equivalents of any number of tenths or hundredths
- recognise and show, using diagrams, families of common equivalent fractions
- solve problems involving increasingly harder fractions to calculate quantities, and fractions to divide quantities, including non-unit fractions where the answer is a whole number
- round decimals with one decimal place to the nearest whole number
- count up and down in hundredths; recognise that hundredths arise when dividing an object by one hundred and dividing tenths by ten
- find the effect of dividing a one- or two-digit number by 10 and 100, identifying the value of the digits in the answer as ones, tenths and hundredths
- add and subtract fractions with the same denominator
- solve simple measure and money problems involving fractions and decimals to two decimal places

## Measurement:

- estimate, compare and calculate different measures, including money in pounds and pence
- read, write and convert time between analogue and digital 12- and 24-hour clocks
- measure and calculate the perimeter of a rectilinear figure (including squares) in centimetres and metres
- find the area of rectilinear shapes by counting squares
- solve problems involving converting from hours to minutes; minutes to seconds; years to months; weeks to days.



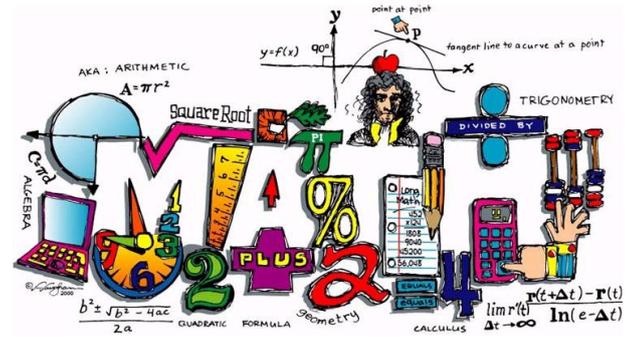
- Convert between different units of measure [for example, kilometre to metre; hour to minute]

## Summer:

### Properties of Shape

#### Position, Direction and Movement:

- describe positions on a 2-D grid as coordinates in the first quadrant
- plot specified points and draw sides to complete a given polygon
- identify lines of symmetry in 2-D shapes presented in different orientations
- compare and classify geometric shapes, including quadrilaterals and triangles, based on their properties and size
- identify acute and obtuse angles and compare and order angles up to two right angles by size



#### Statistics:

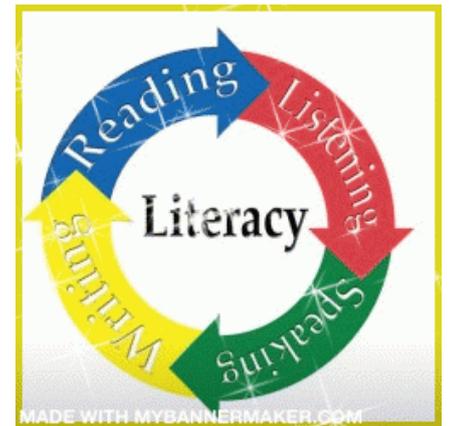
- interpret and present discrete and continuous data using appropriate graphical methods, including bar charts and time graphs.
- solve comparison, sum and difference problems using information presented in bar charts, pictograms, tables and other graphs.

## Literacy

### Autumn:

#### Spoken Language

- listen and respond appropriately to adults and their peers
- ask relevant questions to extend their understanding and knowledge
- use spoken language to develop understanding through speculating, hypothesising, imagining and exploring ideas
- gain, maintain and monitor the interest of the listener(s)
- consider and evaluate different viewpoints, attending to and building on the contributions of others
- speak audibly and fluently with an increasing command of Standard English
- participate in discussions, presentations, performances, role play, improvisations



#### Reading Comprehension

Develop positive attitudes to reading and understanding of what they read by:

- listening to and discussing a wide range of fiction, poetry, plays, non-fiction and reference books or textbooks
- preparing poems to read aloud and to perform, showing understanding through intonation, tone, volume and action
- recognising some different forms of poetry [for example, free verse]
- listening to and discussing a wide range of fiction, poetry, plays, non-fiction
- reading books that are structured in different ways and reading for a range of purposes
- discussing words and phrases that capture the reader's interest and imagination
- increasing their familiarity with a wide range of books, including fairy stories

Understand what they read, in books they can read independently, by

- checking that the text makes sense to them, discussing their understanding and explaining the meaning of words in context
- retrieve and record information from non-fiction
- participate in discussion about both books that are read to them and those they can read for themselves, taking turns and listening to what others say
- asking questions to improve their understanding of a text
- drawing inferences such as inferring characters' feelings, thoughts and motives from their actions, and justifying inferences with evidence

- predicting what might happen from details stated and implied
- identifying main ideas drawn from more than one paragraph and summarising these

### *Reading – Word Reading*

- apply their growing knowledge of root words, prefixes and suffixes (etymology and morphology) as listed in English Appendix 1, both to read aloud and to understand the meaning of new words they meet
- read further exception words, noting the unusual correspondences between spelling and sound, and where these occur in the word.

### *Writing Composition*

Plan their writing by:

- discussing and recording ideas
- discussing writing similar to that which they are planning to write in order to understand and learn from its structure, vocabulary and grammar

Draft and write by:

- composing and rehearsing sentences orally (including dialogue), progressively building a varied and rich vocabulary and an increasing range of sentence structures (English Appendix 2)
- organising paragraphs around a theme
- in narratives, creating settings, characters and plot
- in non-narrative material, using simple organisational devices [for example, headings and sub-headings]

Evaluate and edit by:

- assessing the effectiveness of their own and others' writing and suggesting improvements
- proof-read for spelling and punctuation errors
- read aloud their own writing, to a group or the whole class, using appropriate intonation and controlling the tone and volume so that the meaning is clear

### **Spring:**

#### *Spoken Language*

- use spoken language to develop understanding through speculating, hypothesising, imagining and exploring ideas
- speak audibly and fluently with an increasing command of Standard English
- participate in discussions, presentations, performances, role play, improvisations and debates
- gain, maintain and monitor the interest of the listener(s)
- listen and respond appropriately to adults and their peers
- ask relevant questions to extend their understanding and knowledge
- use relevant strategies to build their vocabulary



#### *Reading Comprehension*

Develop positive attitudes to reading and understanding of what they read by:

- listening to and discussing a wide range of fiction, poetry, plays, non-fiction and reference books or textbooks
- using dictionaries to check the meaning of words that they have read
- range of books, including fairy stories, myths and legends, and retelling some of these orally
- increasing their familiarity with a wide
- identifying themes and conventions in a wide range of books
- discussing words and phrases that capture the reader's interest and imagination

Understand what they read, in books they can read independently, by:

- identifying how language, structure, and presentation contribute to meaning
- asking questions to improve their understanding of a text
- drawing inferences such as inferring characters' feelings, thoughts and motives from their actions, and justifying inferences with evidence
- predicting what might happen from details stated and implied
- checking that the text makes sense to them, discussing their understanding and explaining the meaning of words in context

## Reading – Word Reading

- apply their growing knowledge of root words, prefixes and suffixes (etymology and morphology) as listed in English Appendix 1, both to read aloud and to understand the meaning of new words they meet
- read further exception words, noting the unusual correspondences between spelling and sound, and where these occur in the word.

## Writing Composition

Plan their writing by:

- discussing writing similar to that which they are planning to write in order to understand and learn from its structure, vocabulary and grammar

Draft their writing by:

- in narratives, creating settings, characters and plot
- composing and rehearsing sentences orally (including dialogue), progressively building a varied and rich vocabulary and an increasing range of sentence structures (English Appendix 2)

Evaluate and edit by:

- assessing the effectiveness of their own and others' writing and suggesting improvements
- proposing changes to grammar and vocabulary to improve consistency, including the accurate use of pronouns in sentences
- proof-read for spelling and punctuation errors
- read aloud their own writing, to a group or the whole class, using appropriate intonation and controlling the tone and volume so that the meaning is clear.

## Summer

### Spoken Language

- listen and respond appropriately to adults and their peers
- ask relevant questions to extend their understanding and knowledge
- use relevant strategies to build their vocabulary
- articulate and justify answers, arguments and opinions
- give well-structured descriptions, explanations and narratives for different purposes, including for expressing feelings
- maintain attention and participate actively in collaborative conversations, staying on topic and initiating and responding to comments
- use spoken language to develop understanding through speculating, hypothesising, imagining and exploring ideas
- participate in discussions, presentations, performances, role play, improvisations and debates
- gain, maintain and monitor the interest of the listener(s)
- consider and evaluate different viewpoints, attending to and building on the contributions of others
- select and use appropriate registers for effective communication

### Reading Comprehension

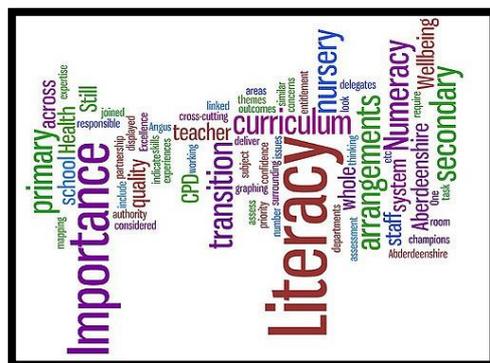
Develop positive attitudes to reading and understanding of what they read by:

- listening to and discussing a wide range of fiction, poetry, plays, non-fiction and reference books or textbooks
- recognising some different forms of poetry [for example, free verse, narrative poetry]
- preparing poems and play scripts to read aloud and to perform, showing understanding through intonation, tone, volume and action
- discussing words and phrases that capture the reader's interest and imagination
- reading books that are structured in different ways and reading for a range of purposes

Understand what they read, in books they can read independently, by:

- checking that the text makes sense to them, discussing their understanding and explaining the meaning of words in context
- asking questions to improve their understanding of a text
- identifying main ideas drawn from more than one paragraph and summarising these
- identifying how language, structure, and presentation contribute to meaning

## Reading – Word Reading



- apply their growing knowledge of root words, prefixes and suffixes (etymology and morphology) as listed in English Appendix 1, both to read aloud and to understand the meaning of new words they meet
- read further exception words, noting the unusual correspondences between spelling and sound, and where these occur in the word

## *Writing Composition*

Plan their writing by:

- discussing writing similar to that which they are planning to write in order to understand and learn from its structure, vocabulary and grammar
- discussing and recording ideas
- organising paragraphs around a theme

Draft and write by:

- composing and rehearsing sentences orally (including dialogue), progressively building a varied and rich vocabulary and an increasing range of sentence structures ([English Appendix 2](#))
- in narratives, creating settings, characters and plot
- in non-narrative material, using simple organisational devices [for example, headings and sub-headings]

Evaluate and edit by:

- assessing the effectiveness of their own and others' writing and suggesting improvements
- proposing changes to grammar and vocabulary to improve consistency, including the accurate use of pronouns in sentences
- proof-read for spelling and punctuation errors
- read aloud their own writing, to a group or the whole class, using appropriate intonation and controlling the tone and volume so that the meaning is clear

## **Art:**

### **Autumn:**

As part of the Rainforest unit, pupils will:

- create sketch books to record their observations and use them to review and revisit ideas
- improve their mastery of art and design techniques, including drawing, painting and sculpture with a range of materials [for example, pencil, charcoal, paint, clay]



### **Spring:**

As part of the Monarchs unit, pupils will:

- create sketch books to record their observations and use them to review and revisit ideas
- improve their mastery of art and design techniques, including drawing, painting and sculpture with a range of materials [for example, pencil, charcoal, paint, clay]

### **Summer:**

As part of the Volcanoes unit, pupils will:

- improve their mastery of art and design techniques, including drawing, painting and sculpture with a range of materials [for example, pencil, charcoal, paint, clay]
- learn about great artists, architects and designers in history.

## **DT:**

### **Autumn:**

#### *Rainforest*

During the Rainforest unit, pupils will:

## Design

- use research and develop design criteria to inform the design of innovative, functional, appealing products that are fit for purpose, aimed at particular individuals or groups
- generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, **prototypes**, pattern pieces and computer-aided design

## Make

- select from and use a wider range of tools and equipment to perform practical tasks, such as cutting, shaping, joining and finishing, accurately

## Evaluate

- evaluate their ideas and products against their own design criteria and consider the views of others to improve their work

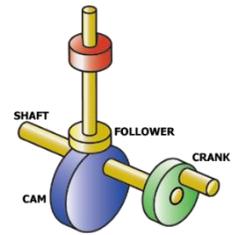
## Technical knowledge

- understand and use mechanical systems in their products, (for example as gears, pulleys, cams, **levers** and linkages)

## Spring:

### Monarchs

During the Monarchs unit, pupils will:



## Design

- use research and develop design criteria to inform the design of innovative, functional, appealing products that are fit for purpose, aimed at particular individuals or groups

## Make

- select from and use a wider range of tools and equipment to perform practical tasks, such as cutting, shaping, joining and finishing, accurately
- select from and use a wider range of materials and components, including construction materials, textiles and ingredients, according to their functional properties and aesthetic qualities

## Evaluate

- investigate and analyse a range of existing products
- evaluate their ideas and products against their own design criteria and consider the views of others to improve their work
- understand how key events and individuals in design and technology have helped shape the world

## Technical knowledge

- apply their understanding of how to strengthen, stiffen and reinforce more complex structures

## Summer:

### Electricity topic

During the Electricity topic (Science), pupils will:

## Design

- use research and develop design criteria to inform the design of innovative, functional, appealing products that are fit for purpose, aimed at particular individuals or groups
- generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design

## Make

- select from and use a wider range of tools and equipment to perform practical tasks, such as cutting, shaping, joining and finishing, accurately
- select from and use a wider range of materials and components, including construction materials, textiles and ingredients, according to their functional properties and aesthetic qualities

## Evaluate

- investigate and analyse a range of existing products



## Science

### Autumn

#### Sound

During the Sound unit, pupils will learn to:

- identify how sounds are made, associating some of them with something vibrating
- recognise that vibrations from sounds travel through a medium to the ear
- find patterns between the pitch of a sound and features of the object that produced it
- find patterns between the volume of a sound and the strength of the vibrations that produced it
- recognise that sounds get fainter as the distance from the sound source increases



### Spring

#### Living Things and their habitats/Animals

During the Living Things and their habitats/Animals unit, pupils will learn to:

- describe the simple functions of the basic parts of the digestive system in humans
- identify the different types of teeth in humans and their simple functions
- construct and interpret a variety of food chains, identifying producers, predators and prey
- recognise that living things can be grouped in a variety of ways
- explore and use classification keys to help group, identify and name a variety of living things in their local and wider environment
- recognise that environments can change and that this can sometimes pose dangers to living things

#### States of Matter

During the States of Matter unit, pupils will learn to:

- compare and group materials together, according to whether they are solids, liquids or gases
- observe that some materials change state when they are heated or cooled, and measure or research the temperature at which this happens in degrees Celsius (°C)
- identify the part played by evaporation and condensation in the water cycle and associate the rate of evaporation with temperature

### Summer

#### Electricity

During the Electricity topic, pupils will learn to:

- identify common appliances that run on electricity E4.1 Y4 Discrete topic - Electricity
- construct a simple series electrical circuit, identifying and naming its basic parts, including cells, wires, bulbs, switches and buzzers
- identify whether or not a lamp will light in a simple series circuit, based on whether or not the lamp is part of a complete loop with a battery
- recognise that a switch opens and closes a circuit and associate this with whether or not a lamp lights in a simple series circuit
- recognise some common conductors and insulators, and associate metals with being good conductors

## RE

### Autumn

*What faiths make up our community and how can we ensure that everyone belongs?*



This unit looks at different places of worship in the local community and their significance to believers. It gives the opportunity to find out about the different types of religious buildings in the local area. A visit to a local place of worship (Sikh Gurdwara) allows the children to find out about features and artefacts at that building and what they mean to believers. They will reflect on the difference worship and belief make to people's everyday lives.

### Spring

*Who can inspire us?*

This unit will explore the concept of leadership and will be an introduction to Jesus, The Prophet Muhammad and Moses as important leaders for Christians, Muslims and Jews.

Pupils will:

- develop an awareness of the key figures in the Abrahamic religions and their teachings
- learn about the specific characteristics of specific leaders, why they are inspirational and how they taught key elements of the faith through stories
- have the opportunity to study a modern-day leader, analysing the impact they have had on society

### Summer

*What words of wisdom guide us?*

This unit uses examples of 'words of wisdom' from Sikhs, Christians and Muslims to enable pupils to think for themselves about sources of guidance or wisdom in their own lives.

## Computing

### Autumn

Pupils will:

- use PIVOT to create animated rainforest storyboards
- recap keeping safe when using the internet

### Spring

Pupils will be researching a famous monarch from the past and present the information through:

- selecting, using and combining a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information

### Summer

Children will be making their own radio broadcast at the scene of a volcanic eruption by:

- selecting, using and combining a variety of software (including internet services) on a range of digital devices to design and creating a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information

## Music

### Autumn

When learning about the Rainforest, pupils will:

- play and perform in solo and ensemble contexts, using their voices and playing musical instruments with increasing accuracy, fluency, control and expression
- improvise and compose music for a range of purposes using the inter-related dimensions of music
- listen with attention to detail and recall sounds with increasing aural memory



### Spring

When rehearsing and performing the school production, pupils will:

- play and perform in solo and ensemble contexts, using their voices and playing musical instruments with increasing accuracy, fluency, control and expression
- improvise and compose music for a range of purposes using the inter-related dimensions of music
- listen with attention to detail and recall sounds with increasing aural memory

### Summer

In the Summer term, pupils will:

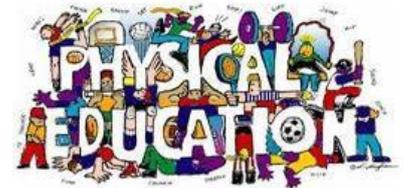
- use and understand staff and other musical notations
- appreciate and understand a wide range of high-quality live and recorded music drawn from different traditions and from great composers and musicians
- develop an understanding of the history of music

## PE

### Autumn

Children will:

- use running, jumping, throwing and catching in isolation and in combination
- play competitive games, modified where appropriate [for example, badminton, basketball, cricket, football, hockey, netball, rounders and tennis], and apply basic principles suitable for attacking and defending
- develop flexibility, strength, technique, control and balance [for example, through athletics and gymnastics]
- perform dances using a range of movement patterns



### Spring

Children will:

- use running, jumping, throwing and catching in isolation and in combination
- play competitive games, modified where appropriate [for example, badminton, basketball, cricket, football, hockey, netball, rounders and tennis], and apply basic principles suitable for attacking and defending
- develop flexibility, strength, technique, control and balance [for example, through athletics and gymnastics]
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### Summer

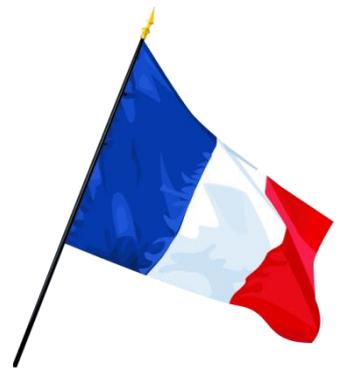
Children will:

- take part in outdoor and adventurous activity challenges both individually and within a team (during orienteering activities)
- compare their performances with previous ones and demonstrate improvement to achieve their personal best (during athletics and competitive games)

## French

The national curriculum for languages aims to ensure that all pupils:

- understand and respond to spoken and written language from a variety of authentic sources
- speak with increasing confidence, fluency and spontaneity, finding ways of communicating what they want to say, including through discussion and asking questions, and continually improving the accuracy of their pronunciation and intonation
- can write at varying length, for different purposes and audiences, using the variety of grammatical structures that they have learnt
- discover and develop an appreciation of a range of writing in the language studied.



This is achieved by covering the following objectives which make up the basis for all French lessons throughout the year:

- listen attentively to spoken language and show understanding by joining in and responding. *L2.1*
- explore the patterns and sounds of language through songs and rhymes and link the spelling, sound and meaning of words. *L2.2*
- engage in conversations; ask and answer questions; express opinions and respond to those of others; seek clarification and help\*. *L2.3*
- speak in sentences, using familiar vocabulary, phrases and basic language structures. *L2.4*
- develop accurate pronunciation and intonation so that others understand when they are reading aloud or using familiar words and phrases\*. *L2.5*
- present ideas and information orally to a range of audiences\* *L2.6*
- read carefully and show understanding of words, phrases and simple writing. *L2.7*
- appreciate stories, songs, poems and rhymes in the language. *L2.8*
- broaden their vocabulary and develop their ability to understand new words that are introduced into familiar written material, including through using a dictionary. *L2.9*
- write phrases from memory, and adapt these to create new sentences, to express ideas clearly. *L2.10*
- describe people, places, things and actions orally\* and in writing. *L2.11*
- understand basic grammar appropriate to the language being studied, including (where relevant): feminine, masculine and neuter forms and the conjugation of high-frequency verbs; key features and patterns of the language; how to apply these, for instance, to build sentences; and how these differ from or are similar to English. *L2.12*

Topics covered:

### Autumn

- Recap of all topics taught in Yr 3
- Months - birthdays
- Numbers to 100
- Family

### Spring

- Decoding French text and identify word classes and common sounds

### Summer

- The High Street - places and directions
- Revisions of days of the week and introducing times of day
- No new vocabulary - introducing how to structure writing including basic verbs and French grammar
- Hobbies
- Giving opinions - likes and dislikes

## PSHCE

Values covered:

### Autumn:

- Be United
- Be Creative



## Spring:

- Be Safe
- Be Caring

## Summer:

- Be Bold
- Be Healthy