



The

# Lloyd Williamson

Schools Foundation

Curriculum Topics  
and  
Programmes of Study

Centaur

2021-2022

## **English**

Pupils will be taught to read a wide range of poetry and books written at an age appropriate interest level with accuracy and at a reasonable speaking pace. They will be supported to read accurately with meaning and clear, appropriate intonation, which demonstrates understanding. Pupils will be taught to organise and write their ideas quickly and legibly. They will be taught to use correct and appropriate punctuation and grammar. They will be supported to use correct spelling throughout their work across the curriculum.

Pupils will be taught and encouraged to enjoy language. They will be encouraged to extend their use of language and broaden their vocabulary and styles through incorporating what they learn through a broad diet of literature.

All pupils will be taught to enhance the effectiveness of their writing as well as their competence.

The pupils' writing will be sufficiently fluent and effortless for them to manage the general demands of the overall curriculum. The pupils will be taught to consciously control sentence structure in their writing and understand why sentences are constructed as they are.

### **Texts (for study and comprehension)**

- Events from different points of view
- Established authors
- Fact/opinion/fiction
- First person narration/third person narration
- Scripts
- Information texts
- Poetry
- Argument
- Examples of suspense
- Stories: different genres
- Official language: formal vs. informal
- Writing style: different authors

### **Writing focus**

- Stories: various styles and genres
- Stories: with particular focus on narrative viewpoints
- Autobiography
- Poetry
- Playscripts
- Biographies
- Journalistic writing
- Controversial issues: debating and use of persuasive language
- Rules and instructions
- Reviews
- Blurbs
- Letter writing

- Advertisements and promotions
- Note making

### **Use of Language and Grammar**

- Revision of all parts of speech
- Complex sentences
- Dashes and brackets
- Prepositions
- Verbs and tenses
- Active/passive verbs
- Colons and semi-colons
- Clauses
- Tone and voice of formal/informal language
- Summary work
- Roots of words
- Prefixes/suffixes
- Language changes over time
- Idioms
- Proverbs

### **Range of texts (for pupils to read for themselves)**

- Short stories and novels: all genres
- Classic and modern poetry
- Autobiographies and biographies
- Play scripts
- Diaries and letters
- Journalistic writing
- Information texts
- Travel writing
- Shakespeare

## **Mathematics**

The pupils will be encouraged and supported to develop confidence and mental fluency with numbers. We will cover the following:

### **Number**

- Place value of to tens of millions
- Number problems up to tens of millions using the four rules of number
- Revision of long multiplication
- Long division
- Triangular numbers
- Number sequences inc. Fibonacci sequence
- Square roots
- Estimations of square roots
- Square roots using a calculator
- Sequencing using the 'nth' term
- Mental arithmetic skills using the four rules of number
- Mental Arithmetic (Schofield and Sims – expectation of being on book 4/5)
- Preparation for Entrance Examinations at 11+

### **Shape and Space**

- Circles
- Circumference of circles
- Calculating the area of a circle
- Reflection, translation and rotation of shapes

### **Handling Data**

- Conversion graphs
- Methods of handling data
- Ensuring fairness of surveys and methods of testing

### **Measurement**

- Imperial measurements and simple estimates of conversion to metric
- Time problems using the four rules of number

## Science

Pupils will be taught to:

### Living things and their habitats: (Biology)

- Describe how living things are classified into broad groups according to common observable characteristics and based on similarities and differences, including micro-organisms, plants and animals
- Give reasons for classifying plants and animals based on specific characteristics

### Animals including humans (Biology and Chemistry)

- Identify and name the main parts of the human circulatory system and describe the functions of the heart, blood vessels and blood
- Recognise the impact of diet, exercise, drugs and lifestyle on the way their bodies function
- Describe the ways in which nutrients and water are transported within animals including humans

### Evolution and Inheritance (Biology)

- Recognise that living things have changed over time and that fossils provide information about living things that inhabited the earth millions of years ago
- Recognise that living things produce offspring of the same kind, but normally offspring vary and are not identical to their parents
- Identify how animals and plants are adapted to suit their environment in different ways and that adaptation may lead to evolution

### Light (Physics)

- Recognise that light appears to travel in straight lines
- Use the idea that light travels in straight lines to explain that objects are seen because they give out or reflect light into the eye
- Explain that we see things because light travels from light sources to our eyes or from light sources to objects and then to our eyes
- Use the idea that light travels in straight lines to explain why shadows have the same shape as the objects that cast them

### Electricity (Physics)

- Associate the brightness of a lamp or the volume of a buzzer with the number and voltage of cells used in the circuit
- Compare and give reasons for variations in how components function, including the brightness of bulbs, the loudness of buzzers and the on/off position of switches

- Use recognised symbols when representing a simple circuit in a diagram

## **History**

Pupils will continue to develop a chronologically secure knowledge and understanding of British, local and world history. They will note connections, contrasts and trends over time and develop appropriate use of historical terms. History will be taught in relation to its impact on us today – with reference to current local and world events.

Topics will include but not be limited to:

- The achievements of earliest civilisation (non-British)
- Ancient Greece
- A non-European society (e.g. Baghdad, Mayans, Benin tribe)

## **Geography**

The children will be taught, with reference to current politics and world events, to:

### **Locational and place knowledge**

- Identify the position and significance of latitude and longitude, Equator, Northern Hemisphere, Southern Hemisphere, the Tropics and Cancer and Capricorn, Arctic and Antarctic Circle, the Prime/Greenwich Meridian and time zones

### **Human and Physical Geography**

- Our living planet
- Rivers
- Climate zones, biomes, and vegetation belts
- Distribution of natural resources including energy, food, minerals and water

### **Geographical skills and fieldwork**

- Use fieldwork to observe, measure, record and present human and physical features of the local area: political demographics and developments in London – specifically concentrating on 60 years of West Indians on Notting Hill (carnival, why they came, race riots etc)
- Use maps, atlases, globes and digital/computer mapping to locate and understand the significance of size of the countries being studied

## Religious Education

The main religion of study will be Hinduism, Buddhism, Sikhism.

Topics will include but not limited to:

- The development of Hinduism, Buddhism and Sikhism
- Key stories and the development of key writings
- Places of worship both abroad and in the UK
- Key celebrations

The pupils will learn through first hand experience where possible – visits from guest speakers and visits to specific places of worship.

Pupils will continue to develop an understanding of the importance of creating a community that works in harmony. This will include an exploration of:

- Forgiveness
- Fairness
- Love/friendship
- Empathy/compassion
- Respect/tolerance
- Awe and wonder
- Right and wrong
- Respect and value for the views and opinions of other faiths
- Respect for the right of others to hold their own religious views without ridicule or embarrassment
- Recognition that everybody is unique and has something to offer
- Appreciation for the impact that beliefs, values and traditions have on lifestyle

## Art and Design

Pupils will be taught to develop their techniques, including their control and use of materials. They will explore and practise their creativity through experimentation and an increasing awareness of different kinds of art, craft and design.

The 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
- know about great artists, architects and designers in history.

Topics will include:

- People in action – movement
- Stage art – set design, costume and make-up
- A sense of place – urban landscape (drawing and photography)

The pupils will study an artist who works with animation

Art History: Modern and contemporary

## Computing

Pupils will be taught to:

- design and write programs that accomplish specific goals, including controlling or simulating physical systems, solve problems by decoding them into smaller parts
- use sequence, selection and repetition in programs, work with variables and various forms of input and output, generate appropriate inputs and predicted outputs to test programmes
- use logical reasoning explore how a simple algorithm works and to detect and correct errors in algorithms and programmes
- understand computer networks including the internet, how they can provide multiple services and the opportunities they offer for communication and collaboration
- describe how internet search engines find and store data, use search engines effectively, be discerning in evaluating digital content, respect individuals and intellectual property,
- use technology responsibly, safely and securely
- select, use and combine a variety of software on a range of digital devices (including iPads)

Topics will include but not be limited to:

Appropriate Key Stage 2 games

Use of apps / games on the iPads

Digital camera project – printed up or made into a digital art book

Use of emails as communications

Public profiles – safe internet use

Saving information in various forms (inc. cloud)

Simple algorithm games using packs of cards and yes/no boards

Use of Scratch (free resource to download)

Compare and contrast various search engines (specific and safe subjects)

Drawing

## **Design and Technology**

When designing and making, pupils will be taught to:

### Design

- use research and develop design criteria to inform the design of innovative, functional appealing products that are fit for purpose and 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
- select from and use a wider range of materials and components

### Evaluate

- investigate and analyse a range of existing products
- evaluate their ideas and products against their own design criteria, considering the views of others for improvement
- understand how key events and technology have helped shape the world

### Technical knowledge

- apply their knowledge of how to strengthen, stiffen and reinforce more complex structures
- understand and use mechanical systems in their products
- understand and use electrical systems in their products
- apply their understanding of computing to programme, monitor and control their products

Topics will include:

- Shelters
- Slippers
- Pop-up café (themed menus, food, signage / market research, profit and loss)

## **Cooking and Nutrition**

Pupils will be taught to:

- Understand and apply the principles of a healthy and varied diet

- Prepare and cook a variety of predominantly savoury dishes using a range of cooking techniques
- Understand seasonality and know where and how a variety of ingredients are grown, reared, caught and processed

## **Music**

Pupils will be taught to:

- Play and perform in solo and group contexts using their voices and musical instruments with increasing accuracy, fluency, control and expression
- Improvise and compose music for a range of purposes
- Listen with attention to detail and recall sounds with increasing aural memory
- Use and understand staff and other musical notations
- Appreciate and understand a wide range of high quality live and recorded music from different traditions, composers and musicians
- Develop an understanding of the history of music

Pupils will experience live music on a regular basis – plan for and look out for free London concerts experiences.

## **Languages**

The children will be taught French and Latin and be given the opportunity to learn another language of their choice from a range offered.

We will teach the pupils to:

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

## Logic and Reasoning

The children will be taught to develop and extend their memory as well as become good at solving logic problems and puzzles. We will encourage and support them to acquire the essential skills and strategies and understand how and when to use them.

When solving logic problems and puzzles, the following strategies will be taught:

- Identifying carefully what is known and what needs to be found and thinking about how they might relate
- Looking through the information that is given for any relationships or patterns that can be developed and used
- Developing a line of thinking that involves making inferences and deductions, for example 'if I know that then this could or must be true', and testing these out against the given information
- Taking one piece of the information and changing it, while keeping everything else fixed, to see what effect it has on the problem
- Choosing a way of recording and organising the given information that helps to see how the problem is structured
- Checking answers along the way to see if they satisfy the conditions or rules

## Physical Education

Pupils will be taught to:

- Use running, jumping, throwing and catching in isolation and combination
- Play competitive games, modified where appropriate, e.g. bat and ball, basketball, cricket, football, hockey, netball, rounders and tennis and apply the basic principles of attack and defence
- Develop flexibility, strength, technique, control and balance e.g. through athletics and gymnastics
- Perform dances using a range of movements patterns
- Take part in outdoor and adventurous activity challenges (e.g. PGL) and wide games
- Compare their performances with previous ones and demonstrate improvement and personal best