



Cornerstone
Academy Trust

Curriculum Objectives



English

Spoken Language

Children will be taught to . . .

- listen and respond to statements and questions posed by adults and other learners; ask relevant questions to extend their understanding and knowledge; take opportunities to learn new vocabulary across all subjects
- 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
- speak audibly and fluently with an increasing command of Standard English; participate in discussions, presentations, performances, role play, improvisations and debates; gains, maintains and monitors the interest of the listener(s)
- consider and evaluate different viewpoints, attending to and building on the contributions of others; selects and uses appropriate registers for effective communication.

Reading

Word Reading

Children will be taught to . . .

- apply a growing knowledge of root words, prefixes and suffixes (as listed in English Appendix 1), both to read aloud and to understand the meaning of new words that they meet.



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Reading

Reading Comprehension

Children will be taught to . . .

- read and discuss an increasingly wide range of fiction, poetry, plays, non-fiction and reference books or text-books; read books that are structured in different ways and reading for a range of purposes
- recommend books that they have read to their peers, giving reasons for their choices
- identify and discuss themes and conventions in and across a wide range of writing, making comparisons within and across books
- learn a wide range of poetry by heart; prepares poems and plays to read aloud and to perform, showing understanding through intonation, tone and volume so that the meaning is clear to an audience
- check that the book makes sense to them, discussing their understanding and exploring the meaning of words in context; ask questions to improve their understanding
- draw inferences such as inferring characters' feelings, thoughts and motives from their actions, and justifying inferences with evidence; predicts what might happen from details stated and implied
- summarises the main ideas drawn from more than one paragraph, identifies key details that support the main ideas; identifies how language, structure and presentation contribute to meaning
- discuss and evaluate how authors use language, including figurative language, considering the impact on the reader
- distinguish between statements of fact and opinion; retrieves, records and presents information from non-fiction
- participate in discussions about books that are read to them and those they can read for themselves, building on their own and others' ideas and challenging views courteously; explains and discusses their understanding of what they have read, including through formal presentations and debates, maintaining a focus on the topic and using notes where necessary; provides reasoned justifications for their views



Writing

Spelling

Children will be taught to . . .

- use further prefixes and suffixes and understand the guidance for adding them
- spell some words with 'silent' letters [for example, knight, psalm, solemn]
- distinguish between homophones and other words which are often confused; spells of some words needs to be learnt specifically, as listed in English Appendix 1
- use dictionaries to check the spelling and meaning of words; uses the first three or four letters of a word to check spelling, meaning or both of these in a dictionary; uses a thesaurus.

Handwriting

Children will be taught to . . .

- write legibly, fluently and with increasing speed by choosing which shape of a letter to use when given choices and deciding whether or not to join specific letters; chooses the writing implement that is best suited for a task.



Grammar (See English Appendix 2 for guidance)

Children will be taught to . . .

- recognise vocabulary and structures that are appropriate for formal speech and writing, including subjunctive forms
- use passive verbs to affect the presentation of information in a sentence; uses the perfect form of verbs to mark relationships of time and cause
- use expanded noun phrases to convey complicated information concisely; uses modal verbs or adverbs to indicate degrees of possibility
- use relative clauses beginning with who, which, where, when, whose, that or with an implied (i.e. omitted) relative pronoun
- learn the grammar for years 5 and 6 in English Appendix 2
- use commas to clarify meaning or avoid ambiguity in writing
- use hyphens to avoid ambiguity; uses brackets, dashes or commas to indicate parenthesis
- use semi-colons, colons or dashes to mark boundaries between independent clauses; uses a colon to introduce a list
- punctuate bullet points consistently

Composition

Children will be taught to . . .

- identify the audience for and purpose of the writing, selecting the appropriate form and using other similar writing as models for their own
- note and develop initial ideas, drawing on reading and research where necessary
- when writing narratives, consider how authors have developed characters and settings in what pupils have read, listened to or seen performed
- select appropriate grammar and vocabulary, understanding how such choices can change and enhance meaning
- recognise narratives, describes settings, characters and atmosphere and integrating dialogue to convey character and advance the action
- precise longer passages
- uses a wide range of devices to build cohesion within and across paragraphs; using further organisational and presentational devices to structure text and to guide the reader [for example, headings, bullet points, underlining]
- evaluate and edit by proposing changes to vocabulary, grammar and punctuation to enhance effects and clarify meaning



Maths

Number – number and place value

Children will be taught to . . .

- read, write, order and compare numbers up to 10 000 000 and determine the value of each digit
- round any whole number to a required degree of accuracy
- use negative numbers in context, and calculate intervals across zero
- solve number and practical problems that involve all of the above

Number – addition, subtraction, multiplication and division

Children will be taught to . . .

- multiply multi-digit numbers up to 4 digits by a two-digit whole number using the formal written method of long multiplication
- divide numbers up to 4 digits by a two-digit whole number using the formal written method of long division, and interpret remainders as whole number remainders, fractions, or by rounding, as appropriate for the context
- divide numbers up to 4 digits by a two-digit number using the formal written method of short division where appropriate, interpreting remainders according to the context
- perform mental calculations, including with mixed operations and large numbers
- identify common factors, common multiples and prime numbers
- use their knowledge of the order of operations to carry out calculations involving the four operations
- solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why
- solve problems involving addition, subtraction, multiplication and division
- use estimation to check answers to calculations and determine, in the context of a problem, an appropriate degree of accuracy.
- derive quickly division and multiplication facts up to 12×12 (was 10×10 in old curriculum)
- check solutions by applying inverse operations or estimating using approximations



Number – fractions (including decimals and percentages)

Children will be taught to . . .

- use common factors to simplify fractions; use common multiples to express fractions in the same denomination
- use a fraction as an operator to find fractions of quantities eg $\frac{5}{8}$ of 32
- compare and order fractions, including fractions > 1
- add and subtract fractions with different denominators and mixed numbers, using the concept of equivalent fractions
- multiply simple pairs of proper fractions, writing the answer in its simplest form [for example, $\frac{1}{2} \times \frac{3}{4} = \frac{3}{8}$]
- divide proper fractions by whole numbers [for example, $\frac{3}{4} \div 2 = \frac{3}{8}$]
- associate a fraction with division and calculate decimal fraction equivalents [for example, 0.375] for a simple fraction [for example, $\frac{3}{8}$]
- identify the value of each digit in numbers given to three decimal places and multiply and divide numbers by 10, 100 and 1000 giving answers up to three decimal places
- multiply one-digit numbers with up to two decimal places by whole numbers
- use written division methods in cases where the answer has up to two decimal places
- solve problems which require answers to be rounded to specified degrees of accuracy
- recall and use equivalences between simple fractions, decimals and percentages, including in different context

Ratio and proportion

Children will be taught to . . .

- solve problems involving the relative sizes of two quantities where missing values can be found by using integer multiplication and division facts
- solve problems involving the calculation of percentages [for example, of measures, and such as 15% of 360] and the use of percentages for comparison
- solve problems involving similar shapes where the scale factor is known or can be found
- solve problems involving unequal sharing and grouping using knowledge of fractions and multiples.
- understand and use vocabulary associated with probability



Algebra

Children will be taught to . . .

- use simple formulae
- generate and describe linear number sequences
- express missing number problems algebraically
- find pairs of numbers that satisfy an equation with two unknowns
- enumerate possibilities of combinations of two variables

Measurement

Children will be taught to . . .

- solve problems involving the calculation and conversion of units of measure, using decimal notation up to three decimal places where appropriate
- use, read, write and convert between standard units, converting measurements of length, mass, volume and time from a smaller unit of measure to a larger unit, and vice versa, using decimal notation to up to three decimal places
- convert between miles and kilometres
- recognise that shapes with the same areas can have different perimeters and vice versa
- recognise when it is possible to use formulae for area and volume of shapes and calculate the area and perimeter of compound shapes
- calculate the area of parallelograms and triangles
- calculate, estimate and compare volume of cubes and cuboids using standard units, including cubic centimetres (cm^3) and cubic metres (m^3), and extending to other units [for example, mm^3 and km^3]

Geometry – Properties of shapes

Children will be taught to . . .

- draw 2-D shapes using given dimensions and angles on grids linking faces and edges
- recognise, describe and build simple 3-D shapes, including making nets
- compare and classify geometric shapes based on their properties and sizes and find unknown angles in any triangles, quadrilaterals, and regular polygons
- illustrate and name parts of circles, including radius, diameter and circumference and know that the diameter is twice the radius
- recognise and draw angles where they meet at a point, are on a straight line, or are vertically opposite, and find missing angles



Geometry – Position and direction

Children will be taught to . . .

- describe positions on the full coordinate grid (all four quadrants)
- draw, translate and rotate simple shapes on the coordinate plane, and reflect them in the axes

Geometry – Statistics

Children will be taught to . . .

- interpret and construct pie charts and line graphs and use these to solve problems
- calculate and interpret the mean as an average
- use and understand mode and median (Perhaps we should also include Mean as the most important type of average and range)
- collect discrete data and record them using a frequency table
- group data in equal class intervals



Science

Work Scientifically

Plan

Children will be taught to . . .

- plan different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary

Do

Children will be taught to . . .

- take measurements, using a range of scientific equipment, with increasing accuracy and precision, taking repeat readings where appropriate
- record data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs

Review

Children will be taught to . . .

- report and present findings from enquiries, including conclusions, causal relationships and explanations of and degree of trust in results, in oral and written forms such as displays and other presentations
- use test results to make predictions to set up further comparative and fair tests
- identifying scientific evidence that has been used to support or refute ideas or arguments



Biology

Children will be taught to . . .

Animals, including humans

- 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

Living things and their habitats

Children will be taught to . . .

- 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

Evolution and Inheritance

Children will be taught to . . .

- 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



Physics

Children will be taught to . . .

Light

- 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

Children will be taught to . . .

- 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

Children will be taught...

A Historical Era – Kings and Queens of Britain

- continuing upon learnt knowledge in Year 4, create a timeline that investigates the British Monarchy from 1066 to present day
- debate on key monarchs and their actions
- **Trip:** Parliament and Tower of London

A Local Historical Study – Kings and Queens of Britain

- explore the Kings and Queens who visited Exeter and the surrounding area

A theme in British History that extends pupils' chronological knowledge

- enquiry question: "Who is Britain's most influential monarch?"
- investigate monarchs throughout History and the political choices they made – recording research into Sway and OneNote



Geography

Children will be taught...

Human Geography – Trade and Economy

- describe and understand key aspects of human geography, including: economic activity, trade links, distribution of natural resources including energy, food, minerals and water

Physical Geography – Changing Landscapes

- explain what weathering and erosion means, describing how erosion changes rock
- name some of the features of a coastline, utilising prior Year 5 knowledge
- describe how physical changes have shaped the Earth since the 1800s
- list some physical changes to the Earth predicted to occur by 2050

Geographical Skills – Map Reading

- use the 8 points of the compass, 6 figure grid references and symbols and keys on an Ordnance Survey Map to build their knowledge of the United Kingdom and the wider world



RE

Children will be taught...

British Council Themes for “Global Citizens” – Rights and Responsibilities

- Engage in discussion on whether human rights can be absolute or conditional.
- How we are all responsible for upholding the rights of others.
- This theme encourages thinking about what it is to live in a society, where rights in one country are different to those in another.

Learning about Religion – In what ways is religious faith like a journey?

- understanding that religions may hold the answers, for some people, to life’s mysteries
- learning about religious codes of conduct and rules of living, considering the effect these have on any individuals’ journey through life
- drawing on examples of how personal and religious beliefs may influence behaviour



Computing

Children will be taught to...

Digital Literacy & Online Safety: Sway and Adobe Premiere

- use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact.

Information Technology: Web Design, Personal sites and GEC

- select, use and combine 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
- understand computer networks including the internet; how they can provide multiple services, such as the world wide web; and the opportunities they offer for communication and collaboration
- use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content

Coding (Computer Science): Micro:Bit, Minecraft, Kodu

- design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts
- use sequence, selection, and repetition in programs; work with variables and various forms of input and output
- use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs



MFL (Spanish)

Project: Our World

- Numbers to 100
- Ordinal numbers
- To hold a conversation about themselves (including topics from previous years)
- Celebrations/festivals
- Musical instruments
- Technology - computers, games, music, video
- Continents
- Around the town - places/points of interest

Children will be taught to...

- listen attentively to spoken language and show understanding by joining in and responding
- explore the patterns and sounds of language through songs and rhymes and link the spelling, sound and meaning of words
- engage in conversations; ask and answer questions; express opinions and respond to those of others; seek clarification and help*
- speak in sentences, using familiar vocabulary, phrases and basic language structures
- develop accurate pronunciation and intonation so that others understand when they are reading aloud or using familiar words and phrases*
- present ideas and information orally to a range of audiences*
- read carefully and show understanding of words, phrases and simple writing
- appreciate stories, songs, poems and rhymes in the language
- broaden their vocabulary and develop their ability to understand new words that are introduced into familiar written material, including through using a dictionary
- write phrases from memory, and adapt these to create new sentences, to express ideas clearly
- describe people, places, things and actions orally* and in writing
- 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



Music

Children will be taught to . . .

- 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
- 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

Art

Children will be taught to . . .

- start to develop their own style using tonal contrasts and mixed media. Look at composition, scale and proportion
- be aware of the foreground, middle ground and background
- use sketchbooks to develop ideas and identify artists who have worked in a similar way to their own work

Art Exhibition

- to use sketchbooks to explore and develop ideas based on the theme of 'depicting a narrative in art' using **action** as a stimulus for creativity

GEC

- children design and create a product with a strong design to a specific brief.
- children are taught to be problem solvers, take and give constructive criticism, be reflective of their own practise and evaluate the outcomes within their design

Dutch Art

- children are taught about the Dutch artwork of the narratives found within them
- Rembrandt *'the night watch'*
- Vermeer: *'Girl with a pearl earring'*, *'Officer and a laughing girl'*
- Utrecht School and the influence of Caravaggio
- children look at how light effects art work and changes the effect of a work
- children create a coiled pot and decorate it in a traditional delftware style



PE

Children will be taught ...

- use running, jumping, throwing and catching in isolation and in combination
- play competitive games, modified where appropriate, such as basketball, cricket, football, 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
- take part in outdoor and adventurous activity challenges both individually and within a team
- compare their performances with previous ones and demonstrate improvement to achieve their personal best

PSHE

Children will be taught to...

- give pupils the knowledge and develop the self-esteem, confidence and self-awareness to make informed choices and decisions;
- encourage and support the development of social skills and social awareness
- enable pupils to make sense of their own personal and social experiences
- promote responsible attitudes towards the maintenance of good physical and mental health, supported by a safe and healthy lifestyle
- enable effective interpersonal relationships and develop a caring attitude towards others
- encourage a caring attitude towards and responsibility for the environment
- help our pupils understand and manage their feelings
- understand how society works and the rights and responsibilities involved
- develop good relationships with other members of the school and the wider community
- appreciate and inherit the Cornerstone Academy Trust School core values 'Fortune Favours the Brave' into their own philosophy
- develop positive learning behaviours



Design & Technology

Children will be taught ...

Global Enterprise Competition

- 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
- 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.
- 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

Eggy Challenge—Create a Powered Buggy

- select from and use a wider range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing], accurately
- understand how key events and individuals in design and technology have helped shape the world
- apply their understanding of how to strengthen, stiffen and reinforce more complex structures
- understand and use mechanical systems in their products [for example, gears, pulleys, cams, levers and linkages.]
- understand and use electrical systems in their products [for example, series circuits incorporating switches, bulbs, buzzers and motors] to power or decorate their buggy
- apply their understanding of computing to program, monitor and control their products

Broadclyst Cook-Off

- 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



Outdoor Learning

Developing crucial life skills

Children will be taught to....

- make emergency phone calls
- use beeches safely
- maintain good levels of hygiene
- act responsibly around electricity
- avoid creating fire hazards
- take part in outdoor and adventurous activity challenges both individually and within a team at Heatree.
- grow the necessary vegetables to create this to create a main meal to eat

Project Based Learning

Children will complete projects:

- **Global Enterprise Challenge** Pupils will learn about the workings of a business and become young entrepreneurs when designing and selling a product of their own creation. They will make complete product research, design prototypes and take them to the 'Dragon's Den' to apply for money. They will then produce their product and compete to sell the most against teams from around the globe.
- **Extreme Animal Illustrated E-book:** Pupils will create E-Books about a chosen extreme animal. They will research facts about the animal's habitat, diet and ecology. They will also use Fresh Paint digital art programme to illustrate their E-Book.
- **Kings & Queens:** Pupils will visit Parliament, Buckingham Palace and the Tower of London and learn about the Kings and Queens of Britain throughout the ages. They will create biographies in the style of Horrible Histories and timeline the Monarchs on the throne.