**Airy Hill Primary School Curriculum Overview – Outlining the substance of Education**

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| Year: Five | Term: Autumn | Whole Class Text (s): Kensuke’s Kingdom/ George’s Secret Key to the Universe | Theme: Lost/ Space |

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| English: See English Long Term Plan | Maths: Follow White Rose Maths Planning |
| RE L2.6 Why do some people think that life is like a journey and what significant experiences mark this? – Year 4 topicRE U2.1 Why do some people think God exists? | Follow NYCC RE scheme of work |

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|  | Context | Subject-specific knowledge | Subject- specific skill development | Key Expected Outcomes  |
| History | The building of Baghdad. | * Location of Baghdad
* What the Caliphate is/means
* When the building of Baghdad began
* Where this period fits in with previous learning.
* Trade links with other cultures (eg: Vikings).
 | * Draw a timeline with different historical periods showing key historical events and people (previous learning)
* Compare with other ancient civilisations e.g. the Egyptians
* Use reliable source material and evidence
* Make arguments for events using research
 | Class/ individual timelineAnnotated map of BaghdadTo be able to discuss the events of the period (including cause and effect) using high level vocabulary. |
| Geography | Europe and Asia | * Where these continents are
* What the features of these continents and the surrounding seas and oceans?
* Identify major trade routes (links to history)
* Research migration and find reasons / explanations for this
 | * Location of countries of Europe and Asia and their environmental regions, key physical and human characteristics
* Identify position and significance of long. Lat. Cap. Can. Equator...
* Physical geography – climate, vegetation belts, mountains, volcanoes, earthquakes
* Human geography
 | Annotated mapsExplanations (written/verbal) about the features of the continents and their physical and human features. |
| Art | Discrete lesson | *NC: Understand techniques including control, and use of materials with creativity, experimentation and increasing awareness of different kinds of art, craft and design*To improve the mastery understanding of drawing - * Awareness of different **pencils** and their effects
* The purpose of portraits throughout history
* Understanding of proportion and anatomy
* Understanding of light source
 | *NC : Develop techniques including control, and use of materials with creativity, experimentation and increasing awareness of different kinds of art, craft and design*To improve the mastery of drawing - * To use a range of materials creatively to design and make products – portraits and pencils
* To use drawing to develop and share their ideas, experiences, and imagination
* Experiment with pencil to create shade and tone using the light sources
* Individual studies on each part of the face
 | **Sketch books to be used to show improved mastery of:** -lessons on each part of the face -development of shading and tone-a final portrait using the skills developed |
| DT | Bread | * Bread is a carbohydrate
* Bread is part of a healthy balanced diet
* There are many different types of bread
* Risen bread requires an active ingredient.
 | * Understand and apply the principles of a healthy and varied diet
* Prepare a variety of breads
* Understand the ‘journey’ our food takes.
 | Evaluation of bread tastingDevelop a bread recipeMake bread according to recipeTaste and evaluate breads. |
| Computing | “We are game developers”(Developing an interactive game)“We are cryptographers” | Gaming:* To create original artwork and sound for a game.
* To design and create a computer program for a computer game, which uses sequence, selection, repetition and variables.
* To detect and correct errors in their computer game.
* To use iterative development techniques (making and testing a series of small changes) to improve their game.

Cryptography:* To be familiar with semaphore and Morse code.
* To understand the need for private information to be encrypted.
* To encrypt and decrypt messages in simple ciphers.
* To appreciate the need to use complex passwords and to keep them secure.
* To have some understanding of how encryption works on the web.
 | Gaming:* 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.
* To use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs.
* To 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.

Cryptography:* Use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs.
* 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 technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact.
 | Gaming:Develop an interactive gameCryptography:Crack codes |
| Science | Earth and space | * Describe the movement of the Earth, and other planets, relative to the Sun in the solar system.
* Describe the movement of the Moon relative to the Earth.
* Describe the Sun, Earth and Moon as approximately spherical bodies.
* Use the idea of the Earth’s rotation to explain day and night, and the apparent movement of the sun across the sky.
* To explore the contributions, to our understanding of this topic, by scientists of various ethnicities, including black scientists.
 | * Planning different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary.
* Taking measurements, using a range of scientific equipment, with increasing accuracy and precision.
* Recording data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, and bar and line graphs.
* Using test results to make predictions to set up further comparative and fair tests.
* Reporting and presenting findings from enquiries, including conclusions, causal relationships and explanations of results, in oral and written forms such as displays and other presentations.
* Identifying scientific evidence that has been used to support or refute ideas or arguments.
 | A range of evidence covering the topics and working scientifically objectives (in all five main types of investigation), including scientific reports, completed worksheets, written tasks, tables, graphs, charts, research using secondary sources, tests, practical activities, etc. |
| Music | Music ExpressOur Community Solar System | * The song Jerusalem & changes through time
* Claude Debussey, Gustav Holst & George Crumb
 | * Composition and performance inspired by the community
* Learn a song, compose pieces linked to space
 | Two compositions |
| PE |  | *Autumn 1 – Swimming & Invasion Games* | Autumn 2 – Swimming & Athletics |  |

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| Enrichment Activities: East Barnby outdoor activities residential |

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| Life Skills: Use a washing machine. |

**Airy Hill Primary School Curriculum Overview – Outlining the substance of Education**

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| Year: Five | Term: Spring | Whole Class Text (s): Ned’s Circus of Marvels | Theme: Georgians & Georgian Whitby  |

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| English: See English Long Term Plan | Maths: Follow White Rose Maths Planning |

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| RE L2.5 Why are festivals important to religious communities? (Eid focus) – Y4 topicRE U2.6 What does it mean to be a Muslim in Britain today?  | Follow NYCC RE scheme of work |

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|  | Context | Subject-specific knowledge | Subject- specific skill development | Key Expected Outcomes  |
| History | Georgians | * Deep understanding of the 4 Georges and their roles / influence using documentary evidence
* Research and recognition of key Georgian people and influencers
* Georgian buildings – Captain Cook House
* Georgian dress
* How whaling influenced Whitby then and today.
* How Whitby's former prosperity was due to something that is illegal today.
* Slavery and the local profits of slavery (James Wilson, plantation and slave owner, later MP for York and who builder of Sneaton Castle).

<https://www.open.edu/openlearn/history-the-arts/history/heritage/the-profits-slavery-james-wilson-whitby-and-sneaton-castle><https://www.ucl.ac.uk/lbs/person/view/2146644189#:~:text=MP%20for%20York%201826%2D1830,a%2010%20year%20old%20boy><http://www.histparl.ac.uk/volume/1820-1832/member/wilson-james-1830><https://www.ucl.ac.uk/lbs/person/view/2146644189> | * Draw a timeline with different historical periods showing key historical events and people
* Explain how our locality has changed over time
* Summarise the main events from a period of history, explaining the order of events and what happened.
* Compare Wilson with Wilberforce (from Hull) and discuss why they would have opposing views.
 | Timeline Biography supported by documentary evidence Visit to the library and go on a walk of Georgian WhitbyWhole Class Georgian street scene (DT link) |
| Geography | Georgian Whitby | * Knowledge of how maps have geographically changed over time
* How industry influences population
* Captain Cook – cartography
 | * Explain how a location fits into its wider geographical location with reference to human and economical features
* Explain why people choose to live in one place rather than another
* Carry out research to discover features of villages, towns or cities
* Use aerial photographs (Cartography from CC and space centre imagery) to make comparisons
 | Comparative group PowerPoint / display to inform parents  |
| Art | Discrete lesson   | *NC: Understand techniques including control, and use of materials with creativity, experimentation and increasing awareness of different kinds of art, craft and design*To improve the mastery understanding of graffiti painting-* Secure knowledge of Banksy and his style of work
* The importance and purpose of street art
* Understand primary, secondary **and tertiary colours**
* Knowledge of stencilling
* Legal rights / laws / freedom of actions
* Safety of using aerosols – if relevant
 | *NC : Develop techniques including control, and use of materials with creativity, experimentation and increasing awareness of different kinds of art, craft and design*To improve the mastery of painting-* Ability to create and use a stencil
* Composition and design of bold, large images with a clear message to be portrayed
* Craft knife to cut
* Positioning and stillness of stencil
* Colour mixing or selection of bold, bright colours
 | A class board / wall of graffiti art with a political message which is of relevance to them  |
| DT | Bird Boxes | * Use research to develop product design.
* Select from a wide range of tools and materials
* Investigate and analyse a range of existing products
* Use improved skill and accuracy in woodwork.
 | * How to saw wood
* How to make joins
* How to hammer nails
* That different birds will have different requirements (open front, small opening etc)

  | Annotated bird box designWooden bird boxEvaluation of final piece and constructive peer criticism. |
| Computing | “We are artists”(Fusing geometry and art)“We are web developers”(Creating a website about cyber safety) | Art:* To develop an appreciation of the links between geometry and art.
* To become familiar with the tools and techniques of a vector graphics package.
* To develop an understanding of turtle graphics.
* To experiment with the tools available, refining and developing their work as they apply their own criteria to evaluate it and receive feedback from their peers.
* To develop some awareness of computer-generated art, in particular fractal-based landscapes.

Website:* To develop their research skills to decide what information is appropriate.
* To understand some elements of how search engines select and rank results.
* To question the plausibility and quality of information.
* To develop and refine their ideas and text collaboratively.
* To develop their understanding of online safety and responsible use of technology.
 | Art:* 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.
* 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.

Website:* 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 technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact.
* Use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content.
* Select, use and combine a variety of software (including internet services) on a range of digital services to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information.
 | Art:Fuse geometry and art to create a pieceWebsite:Create a website about cyber safety |
| Science **(theory before half term / practicals after half term)** |  (Recovery: Electricity)Forces | * Identify common appliances that run on 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.
* Explain that unsupported objects fall towards the Earth because of the force of gravity acting between the Earth and the falling object.
* Identify the effects of air resistance, water resistance and friction, that act between moving surfaces.
* Recognise that some mechanisms including levers, pulleys and gears allow a smaller force to have a greater effect.
* To explore the contributions, to our understanding of this topic, by scientists of various ethnicities, including black scientists.
 | * Planning different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary.
* Taking measurements, using a range of scientific equipment, with increasing accuracy and precision.
* Recording data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, and bar and line graphs.
* Using test results to make predictions to set up further comparative and fair tests.
* Reporting and presenting findings from enquiries, including conclusions, causal relationships and explanations of results, in oral and written forms such as displays and other presentations.
* Identifying scientific evidence that has been used to support or refute ideas or arguments.
 | A range of evidence covering the topics and working scientifically objectives (in all five main types of investigation), including scientific reports, completed worksheets, written tasks, tables, graphs, charts, research using secondary sources, tests, practical activities, etc. |
| Music | Music ExpressLife Cycles Keeping Healthy | * *Johannes Brahms, Luciano Berio, Franz Liszt and Claude Monteverdi. Musical moods, styles and genres*
* *Learning about beat*
 | * Singing, performing and composing using new techniques and structures
* Body-popping, gospel singing
 | Two performances |
| PE |  | *Spring 1 – Gymnastics & Invasion Games* | Spring 2 – Gymnastics & Striking and Fielding |  |

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| Enrichment Activities: Georgian walk, trip to Captain Cook Museum, Parent showcase event  |

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| Life Skills: Start a campfire. |

**Airy Hill Primary School Curriculum Overview – Outlining the substance of Education**

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| Year: Five | Term: Summer | Whole Class Text (s): The Railway Children | Theme: Victorians. |

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| English: See English Long Term Plan | Maths: Follow White Rose Maths Planning |

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| RE U2.2 What would Jesus do? (Can we live by the values of Jesus in the 21st century?) RE U2.4 If God is everywhere, why go to a place of worship? (focus on visit to church and Mandir). | Follow NYCC RE scheme of work |

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|  | Context | Subject-specific knowledge | Subject- specific skill development | Key Expected Outcomes  |
| History | Victorians | * Draw a timeline of the events in the Victorian period
* Explain how parliament affects decision making in England (Tories, Whig party)
* Test out a hypothesis to answer a question
* Describe how crime and punishment has changed over a period
 | * Develop research skills using a range of evidence
* Understand events of the Victorian period in detail and the ability to use this knowledge to express views and opinions
* Identify when in the Victorian period events happened – that later events are consequences of earlier ones (acts of parliament etc)
 | * Timeline
* Debate/discussion (with notes) about a Victorian event
* Class display showing evidence used to form opinions
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| Geography | Mountains | * Name and locate many of the world’s most famous mountainous regions in an atlas.
* Matterhorn and Eiger – what specifically make these mountains challenging to climb
 | * Study how mountains are formed and differences between mountain ranges
* Look at how mountains change over time
* Compare the first mountaineers with modern day climbers (Lucy Walker first woman to conquer Matterhorn and Eiger links to Victorians topic)
 | Annotated diagram of a variety of mountains.Comparisons of mountain ranges.A study of Lucy Walker. |
| Art |  | *NC: Understand techniques including control, and use of materials with creativity, experimentation and increasing awareness of different kinds of art, craft and design*Great architect – Christopher Wren * Know who Wren was and the significant buildings he designed
* Understand the subject specific vocabulary of architecture
* To understand a blueprint of a building design and the purpose of it.
 | *NC: Understand techniques including control, and use of materials with creativity, experimentation and increasing awareness of different kinds of art, craft and design*Great architect – Christopher Wren* + Develop technical drawing skills
	+ Select and use appropriate equipment for the task i.e. hard pencils, rulers, squares, French curves etc
	+ Use a familiar building as a reference point
 | Skill development in sketch booksAnnotated sketchesEvidence of practice using new tools (curves, squares)A final architectural design. |
| DT | Fashion and textiles | * Understand that clothing is made from several pieces of fabric.
* Clothing is sewn together
* Clothing has hems and is neatly finished
* Different pieces require different fasteners
 | * Use research and develop design criteria to inform the design of a wearable piece
* Generate develop, model and communicate ideas using annotated sketches and pattern pieces
* Select from a wide range of fabrics
* Understand how key events and individuals in design and technology have helped shape the world (cotton production)
 | Design an item of clothing with more than one piece of fabric.Explain who the garment is for and when they might wear it.Produce a paper patternProduce a finished garment. |
| Computing | “We are bloggers”(Sharing experiences and opinions)“We are architects”(Creating a virtual space) | Blogging:* To become familiar with blogs as a medium and a genre of writing.
* To create a sequence of blog posts on a theme.
* To incorporate additional media.
* To comment on the posts of others.
* To develop a critical, reflective view of a range of media, including text.

Architecture:* To understand the work of architects, designers and engineers working in 3D.
* To develop familiarity with a simple CAD (computer aided design) tool.
* To develop spatial awareness by exploring and experimenting with a 3D virtual environment.
* To develop greater aesthetics awareness.
 | Blogging:* 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 technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact.
* 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.
* Be discerning in evaluating digital content.

Architecture:* Use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content.
* 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.
 | Blogging:Create a place to share experiences and opinions.Architecture:To create a virtual environment. |
| Science | Living things and their habitats(Recovery) | * 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.
* Describe the differences in the life cycles of a mammal, an amphibian, an insect and a bird
* Describe the life process of reproduction in some plants and animals.
* Describe the changes as humans develop to old age.
* To explore the contributions, to our understanding of this topic, by scientists of various ethnicities, including black scientists.
 | * Planning different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary.
* Taking measurements, using a range of scientific equipment, with increasing accuracy and precision.
* Recording data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, and bar and line graphs.
* Using test results to make predictions to set up further comparative and fair tests.
* Reporting and presenting findings from enquiries, including conclusions, causal relationships and explanations of results, in oral and written forms such as displays and other presentations.
* Identifying scientific evidence that has been used to support or refute ideas or arguments.
 | A range of evidence covering the topics and working scientifically objectives (in all five main types of investigation), including scientific reports, completed worksheets, written tasks, tables, graphs, charts, research using secondary sources, tests, practical activities, etc. |
| Science | Properties and changes of materials | * Compare and group together everyday materials based on their properties, including their hardness, solubility, transparency, conductivity (electrical and thermal), and response to magnets
* know that some materials will dissolve in liquid to form a solution and describe how to recover a substance from a solution.
* Use knowledge of solids, liquids and gases to decide how mixtures might be separated, including through filtering, sieving and evaporating.
* Give reasons, based on evidence from comparative and fair tests, for the uses of everyday materials, including metals, wood and plastic.
* Demonstrate that dissolving, mixing and changes of state are reversible changes
* Explain that some changes result in the formation of new materials, and that this kind of change is not usually reversible, including changes associated with burning and the action of acid on bicarbonate of soda.
* To explore the contributions, to our understanding of this topic, by scientists of various ethnicities, including black scientists.
 | * Planning different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary.
* Taking measurements, using a range of scientific equipment, with increasing accuracy and precision.
* Recording data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, and bar and line graphs.
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* Reporting and presenting findings from enquiries, including conclusions, causal relationships and explanations of results, in oral and written forms such as displays and other presentations.
* Identifying scientific evidence that has been used to support or refute ideas or arguments.
 | A range of evidence covering the topics and working scientifically objectives (in all five main types of investigation), including scientific reports, completed worksheets, written tasks, tables, graphs, charts, research using secondary sources, tests, practical activities, etc. |
| Music | Music ExpressAt the movies Celebration | * Music from 1920s animated films
 | * Techniques for creating soundtracks and film scores
* Singing
 | Composition of movie musicUpbeat singing performance |
| PE |  | *Summer 1 – Dance & Net and wall games* | Summer 2 – Dance & Athletcis, Striking and Fielding |  |

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| Enrichment Activities: Trip on the NYM steam train and walk along the railway lines/Cinder Track (Victorian picnic) |

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| Life Skills: Understanding of money and how to budget. |