



## Curriculum Policy

**The purpose of our Academy:**

**Object:**

To advance for the public benefit education in the United Kingdom, in particular but without prejudice to the generality of the foregoing by establishing, maintaining, carrying on, managing and developing a school offering a broad and balanced curriculum.

**Curriculum responsibilities outlined within the Academies Funding agreement with the DFE:**

- The curriculum provided by the Academy shall be broad and balanced,
- The Academy Trust shall ensure that the broad and balanced curriculum includes English, Mathematics and Science,
- The Academy Trust shall make provision for the teaching of religious education and for a daily act of collective worship at the Academy.
- The Academy Trust shall have regard to any guidance issued by the Secretary of State on sex and relationship education to ensure that children at the Academy are protected from inappropriate teaching materials and they learn the nature of marriage and its importance for family life and for bringing up children.

**This is underpinned by the Academies Vision of growing:**

**Laeti, Sani, Multa Perficientes**

**Happy, Healthy, High Achievers.**

**Our Values and goals are based around these principles:**

***Enjoyment, Commitment and Achievement*** (Engagement, Exploring, Knowing, Understanding and Making Sense, Fostering Skills, Exciting Imagination and Enacting Dialogue)

***Equality of Opportunity***

***Fairness and Justice***

***Respect, Reciprocity, Responsibility and Honesty***

***Innovation and Creativity***

***High Aspirations***

***Autonomy, Independence and Resilience***

***Wellbeing and Healthy living***

***Local, National and Global Citizenship***

***Sustainability and interdependence***

## Intent -The Curriculum Statement

The curriculum at the Academy embraces a common set of aims that drive the curriculum, teaching and assessment. They are derived from the research outlined within the Cambridge Review and unashamedly reflect the values and moral purpose, for what school is about.

The 12 aims of the Lowbrook Academy Curriculum:

<p><b>Well-being:</b> prepare children for a fulfilling future as well as attend to their present needs, hopes, interests and anxieties and promote their mental, emotional and physical welfare. Help them to develop a strong sense of self, a positive outlook and maximise their ability to learn through good, evidence-informed teaching.</p>
<p><b>Engagement:</b> secure children’s active and enthusiastic engagement in their learning.</p>
<p><b>Empowerment:</b> excite, promote and sustain children’s agency, empowering them through knowledge, understanding, skill and personal qualities to profit from their learning, to discover and lead rewarding lives, and to manage life and find new meaning in a changing world.</p>
<p><b>Autonomy:</b> enable children to establish who they are and to what they might aspire. Encourage their independence of thought and discrimination in the choices they make. Help them to see beyond fashion to what is of value.</p>
<p><b>Encouraging respect and reciprocity:</b> promote respect for self, for peers and adults, for other generations, for diversity and difference, for ideas and values, and for common courtesy. Respect between child and adult should be mutual, for learning and human relations are built upon reciprocity.</p>
<p><b>Interdependence and sustainability:</b> develop children’s understanding of humanity’s dependence for wellbeing and survival on equitable relationships between individuals, groups, communities and nations, and on a sustainable relationship with the natural world and help children to move from understanding to positive action.</p>
<p><b>Promoting Empowering local, national and global citizenship:</b> enable children to become active citizens by encouraging their full participation in decision-making within the classroom and school, and advancing their understanding of human rights, conflict resolution and social justice. They should develop a sense that human interdependence and the fragility of the world order require a concept of citizenship which is global as well as local and national.</p>
<p><b>Celebrating culture and community:</b> every school should aim to become a centre of community life, culture and thought to help counter the loss of community outside the school. ‘Education is major embodiment of a culture’s way of life, not just a preparation for it,’ as Jerome Bruner said.</p>
<p><b>Exploring, knowing, understanding and making sense:</b> give children the opportunity to encounter, explore and engage with the wealth of human experience and the different ways through which humans make sense of the world and act upon it.</p>
<p><b>Fostering skill:</b> foster skill in those domains on which learning, employment and a rewarding life depend: in oracy and literacy, in mathematics, science, IT, the creative and performing arts and financial management; but also communication, creativity, invention, problem-solving, critical practice and human relations.</p>
<p><b>Exciting imagination:</b> excite children’s imagination so they can advance their understanding, extend the boundaries of their lives, contemplate worlds possible as well as actual, understand cause and consequence, develop the capacity for empathy, think about and regulate their behaviour, and explore language, ideas and arguments</p>

**Enacting dialogue:** help children grasp that understanding builds through collaboration between teacher and pupil and among pupils. Enable them to recognise that knowledge is not only transmitted but also negotiated and re-created; and that each of us in the end makes our own sense out of that knowledge. Dialogue is central to pedagogy: between self and others, between personal and collective knowledge, between present and past, between different ways of thinking

These aims are then aligned and linked to the Domain areas that have been adopted by the Academy as their new subject areas. The Aims and Domain areas are the backbone of the Lowbrook Curriculum.



The Academy's curriculum is delivered through one of two main strategies:

1. Through cross-curricular use of Domains where the activities are developed from the National Strategies and Cambridge Review recommendations. Themes in the Foundation Stage generally last 3 or 4 weeks. Themes in the Primary Phase are planned to last a term (approximately 6 weeks) ; and
2. Through teaching some areas or aspects of the curriculum as discreet subjects. Specialist teachers are currently used to teach PE, dance and music.

### Curriculum Design

The allocation of time for Curriculum Subjects is set out below.

	<b>The School Day</b>	<b>Total time in school</b>	<b>Registration &amp; Assembly</b>	<b>Curriculum time available</b>
<b>Foundation Stage &amp; KS1</b>	09.00 – 11.45 (plus 15 minute break) 12.45 – 15:15 (plus 15 minute break)	4 hours, 45 minutes	30 minutes per day x 3 5 minutes per day x 2	22 hours, 5 minutes per week
<b>Primary Phase KS2 (Years 3-6)</b>	09.00 – 12.10 (plus 15 minute break) 13:00 – 15:15	5 hours, 10 mins	30 minutes per day x 3 5 minutes per day x 2	24 hours, 10 minutes per week

The number of weeks in the school Year is 38. Time equivalent to two weeks is deducted for special events such as performances, festivals, residential visits etc.

	<b>Total Annual Curriculum Time</b>	
<b>Foundation Stage &amp; KS1</b>	38 weeks	840 hours
<b>Primary Phase KS2 (Years 3-6)</b>	38 weeks	916 hours

## Implementation Statement

The allocation of time set out below is the starting point for planning, however the art of teaching is not determined by time and it is expected that teachers will act professionally within these guidelines to allocate appropriate and effective amounts of time to each area as they feel fit. Some subjects or units of work may be taught in blocks; or more frequently during themed weeks, therefore the weekly figure is nominal only.

It is our belief that consolidation of learning and knowledge is fundamental; and therefore creating 'Awe and Wonder' within our curriculum is key to this. The development of Lowbrook Theme Weeks has been hugely influential with our pupils in achieving this. Annually, the Academy holds a Science Week, a Maths Week, a Book Week, an Arts & Culture Week and a Sports Week. Experts from the world outside school are planned for and invited in to work with the children; class trips and visits to industry are organised; specialists come to school to work with the children; equipment beyond the school's means are used; and parents join us at school to tell us about how elements of that curriculum area is used in their work place.

Natural events, visitor opportunities and local initiatives will also grab our attention and warrant curriculum exploration. If an opportunity arises, staff are encouraged to use it. If it snows, there will be **no** snow day for us. Instead, how snow forms, the structure of a snow flake and the designing of tools to keep our school open may well become our focus for the day.

Other Domains are cross-curricular such as English or ICT. In the Foundation Stage 1 and 2 the overlap of Areas of Learning makes hourly time allocation inappropriate. Pupils at Key Stage 1 have opportunities for child-initiated or directed play. In line with the recommendations outlined within the Cambridge Review each class works towards 30% of the curriculum being designed around our own distinctive locality. The curriculum will be planned and delivered by the class teachers, specialist teachers, higher level teaching assistants, teaching assistants and where appropriate coaches, artists and musicians. Specialist subjects such as Music, PE and Art are, at times, taught by specialist teachers employed within the school.

Subject	Primary Phase (Year 2)		Primary Phase (Year 3-6)	
	Hours per Year (in decimal form)	Hours per week (in decimal form)	Hours per Year (in decimal form)	Hours per week (in decimal form)
Language, Oracy and Literacy	234	6.5	234	6.5
Mathematics	198	5.5	198	5.5
Science & Technology	72	2	99	2.75
ICT and Computing (cross curricular)	72	2	99	2.75
Place & Time	54	1.5	72	2
Arts & Creativity	72	2.00	72	2.00
Physical & Emotional Health	83.51	2.33	99	2.75
Faith & Belief	23.76	0.66	36	1.00
Citizenship & Ethics	23.76	0.66	27	0.75

A description of how individual subject planning is related to the planning strategy.

Please note that with the exception of Language, Oracy & Literacy and Mathematics, these allocations are approximate depending on each classes themes being covered.

## Domain Summary – Primary Phase (Years 2-6)

### Language, Oracy and Literacy

English is one of the core subjects of the National Curriculum. We define this Domain as Language, Oracy and Literacy and do not hesitate in placing this domain at the heart of our curriculum. It is our belief that Language, Oracy and Literacy are the passports to life and therefore they must take priority at Lowbrook. This Domain includes spoken language, phonics, reading, writing, literature, wider aspects of language and communication, modern foreign languages, ICT and other non-print media.

### Oracy

We recognise the power and influence of the spoken word. The 2014 National Curriculum refers to this as **Spoken Language** and reflects the importance of spoken language in pupils' development across the whole curriculum. –cognitively, socially and linguistically.

The National Curriculum objectives are included in all lessons and all pupils are taught to speak clearly and convey ideas confidently using Standard English. They are encouraged to justify their ideas with reason; ask questions to check understanding; develop vocabulary and build knowledge; negotiate; evaluate and build on ideas of others.

Vocabulary boards for Mathematics and English are displayed in all classrooms and are changed termly. The children are taught to give well-structured descriptions and explanations and develop their understanding through speculating, hypothesising and exploring ideas. Teachers all model how to clarify thinking and help all the children to organise their ideas for expressing spoken language.

As a school we aim to further build upon, and enhance the objectives as defined in the 2014 National Curriculum, as spoken language underpins the development of reading and writing. It is this purpose of study in the National Curriculum that this school's curriculum is enriching and developing, building on from the research and recommendations within the Cambridge Review.

Spoken Language is central to learning and cognition and many more opportunities are now provided to expand the use of Exploratory Talk, debate and discussion across all domains. The Cambridge Review is a huge advocate of learning and development through dialogue and we recognise that metacognition through this is an integral part to every lesson.

*“From a psychological and pedagogical perspective, there is persuasive evidence that voice and dialogue support both learning and metacognition, enabling children to become independent and reflective learners.” GFTTT Cambridge Review.*

The school has its own public speaking assessments with certificates given in every year. Our aim is to give the children the confidence to speak and the forum to be heard.

An emphasis on Oracy is also placed in the school's Philosophy Circles. During these lessons, children are taught how to create their own philosophical questions. They then choose one question that is the focus of a philosophical enquiry, or dialogue. For example, the question might be, “Is it ever ok to steal?”

The teacher, acts as facilitator, supporting the children in their thinking, reasoning and questioning, as well as the way the children speak and listen to each other in the dialogue. The role of the

facilitator is crucial to ensuring quality dialogue and progress, as well as integration with the curriculum. After the enquiry the children and facilitator reflect on the quality of the thinking, reasoning and participation, and suggest how they could improve; either as individuals or as a group.

Philosophy Circles are a weekly and regular timetabled activity to ensure that the children develop their skills and understanding over time.

### **Vocabulary Development**

*“A rich vocabulary supports learning about the world, encountering new ideas, enjoying the beauty of language. A rich vocabulary enhances an interview, allows one to see humour in wordplay, shores up what an individual wants to say, and especially wants to write. It is clear that a large and rich vocabulary is the hallmark of an educated individual.”*

Bringing Words To Life – Isabel L. Beck, Margaret G. McKeown and Linda Kucan

Children’s acquisition and command of vocabulary are key to their learning and progress across the whole curriculum. Teachers develop vocabulary actively, building systematically on pupils’ current knowledge and make links between known and new vocabulary and discuss the shades of meaning in similar words. Understanding through comprehension of the meaning of words is encouraged and modelled across all Domains and language which defines subjects in their own right is a feature of all lessons.

At Lowbrook Academy, we believe that it is important to support our pupils’ development of vocabulary by providing them with a range of vocabulary learning strategies that they can use to confidently explore any unfamiliar words they encounter. We promote academic vocabulary by ensuring subject specific vocabulary is taught not only within Language, Oracy and Literacy lessons but also through all Domains: Tier 2 (words that are not necessarily specific to subject Domains but require pupils to have a ‘mature’ vocabulary in order to comprehend the meaning of the word) and Tier 3 (subject specific words and key terms). Pupils are introduced to key subject specific vocabulary (Tier 3 words) at the start of each curriculum topic, ensuring that pupils are exposed to academic and subject specific vocabulary multiple times, interweaving the vocabulary throughout the term and year.

From reading and writing, chances arise naturally to learn more vocabulary. At Lowbrook, we demonstrate to pupils how to understand the relationships between words, nuances in meaning, and how to understand and use figurative language. Additionally, it is important that pupils know how to work out and clarify meanings of unknown words, and words with more than one meaning. Standard English is always encouraged, and pupils are taught to control their speaking and writing consciously for different audiences and purposes.

### **Pupil voice**

By listening to our pupils we will become a better school. The Cambridge Review is a huge advocate of pupil voice and listening to what children had and have to say.

*“Some argue that exploring children’s experiences of teaching and learning provide valuable insights into the difficulties and challenges children experience in their learning.”* GFTTT Cambridge Review.

We recognise the importance of listening to our learners and their opinions about their school and their education, and their view of the world.



In any lesson it is important that all children are fully involved in the learning activities if they are to make the best progress. Teachers usually have a question and response session as part of a lesson; whilst this provides the opportunity for individual children to respond to the teacher, the use of 'response partners' as a strategy means that all children get the opportunity to think, discuss and express themselves orally.

## **Drama**

Through drama we provide children with opportunities to use the international language of theatre, where every child can explore the world of other places, times and cultures and to examine differences and similarities within their own environment. Children are given opportunities to adopt, create and sustain a range of roles and respond appropriately to others in role. In carefully constructed lessons they can improvise, devise and script drama for one another and a range of audiences as well as rehearse, refine, share and respond thoughtfully to drama and theatre performances.

*'As pupils develop confidence and control of this medium they are able to communicate shared understanding and tell stories in dramatic form'* Marigold Ashwell - Drama in schools.

Drama is aligned strongly to the Arts and Creativity Domain, but is creatively used across all Domains.

## **Phonics**

The Rose Report and recommendations (DFE 2009) has, for now, settled the debate regarding phonics. Research indicates its effectiveness and importance and since the Rose Review phonics has become a compulsory component of the Primary Curriculum. Synthetic phonics has been embedded into the Lowbrook curriculum and begins once the children enter the Foundation stage. The programme of phonics used at Lowbrook is largely *Letters and Sounds* however aspects of other phonics programmes such as Jolly Phonics and the Ruth Miskin approach are also used.

The programmes of study for reading in the 2014 National Curriculum consist of two dimensions: word reading and comprehension. Skilled word reading involves both the quick working out of the pronunciation of unfamiliar printed words (decoding) and quick recognition of familiar printed words. Phonics is essential in the teaching of early reading as it underpins the understanding that the letters on the page represent the sounds in spoken words.

## **Writing**

The 2014 National Curriculum is largely used and children are given the opportunity to write every day. The programmes of study for writing consist of two components: transcription (spelling and handwriting) and composition (articulating ideas and structuring them in speech and writing). Writing down ideas fluently depends on effective transcription. Effective composition involves forming, articulating and communicating ideas, and then organising them coherently for a reader. The skills of writing are taught within Language lessons however there is a firm expectation that these skills are carried into every subject. The teaching of grammar is taught within Literacy lessons and where appropriate in isolation so as to reinforce understanding. The two statutory appendices on spelling and on vocabulary, grammar and punctuation are incorporated into our Grammar teaching. The high standards of writing in Literacy must be maintained in other subjects for example Time and Place. To help raise standards in writing, the children take part in 'Big Writing' lessons every week. It is based on a philosophy by Ros Wilson (a former teacher, LA advisor and Ofsted



Inspector). Children develop their writing voice through fast, fun, lively and mainly oral activities based on vocabulary, connectives, openers and punctuation (VCOP). The premise is that if a child can say it, a child can write it. Every classroom reflects the importance of VCOP with high quality displays. In addition to the Big Write the teachers also use writing strategies devised by the poet and author Pie Corbett. Where possible the children will be writing for an audience and for a purpose.

### **Spelling, Punctuation and Grammar**

Opportunities to rehearse spelling and sentence level writing skills is planned into English lessons and discrete Phonics, Spelling, Punctuation and Grammar sessions. It is vital that pupils learn correct grammatical terms in English, and that these terms are integrated within teaching. Punctuation is taught in line with the 2014 National Curriculum.

There is a robust policy for spelling within the school that explores phonics, spelling rules and patterns including exemptions to rules. Spelling benchmarks are set for children throughout the school. The children are taught strategies for learning spellings to assist them with this work. All children have appropriate spellings to learn weekly as well as termly Spelling Stars which include high frequency words. Between weekly spelling and the Spelling Stars, the 2014 National Curriculum word lists for all year groups are covered and are embedded in lessons. It is good practice in this school to retest children on the Spelling Stars they have previously achieved as an appropriate tool to consolidate past learning.

### **Reading**

The teaching of reading is paramount on entry to school. It begins with a love of books through shared reading and storytelling and utilises the skills learnt through phonics and sight reading. The school utilizes a large range of reading schemes and technologies, including computers, iPads and even Kindles, as a medium of engaging with quality literature. We continue to seek innovative ways to promote a life-long love of reading and a positive relationship with Literature. Reading schemes that are used are drawn from a wide range of publishers, with Collings Big Cat and Oxford Reading Tree being the main ones. All Reading Scheme books are colour banded into Reading ages using PM Benchmark. The school also has a well-used and extensive library. Every child will have at least one reading book at any time. Reading in the 2014 National Curriculum is based upon two interlinked elements – word reading and comprehension. The word-reading element of the curriculum is based on phonics. Progression in comprehension is provided primarily through the increasing challenge of the texts that children read. In addition to the difficulty of the text, the level of challenge also comes from the complexity of the questioning, the tasks set, and the quality of the answers that staff are willing to accept. Comprehension skills develop through pupils' experience of high-quality discussion with the teacher, as well as from reading and discussing a range of stories, poems and non-fiction.

Discrete comprehension lessons are taught at least once a week in every class so that children can learn the skills of retrieval, inference and deduction. It is imperative within the Lowbrook curriculum that the children are exposed to an extensive range of authors and genre reflecting the classics right through to the popular culture of modern day authors. Kipling, Dickens, Shakespeare and Morpurgo are to name but a few authors that the children at Lowbrook will have quality exposure to. In addition to moving through the Lowbrook reading scheme and the free reading literature will be studied in context across all the domains. For example historical perspectives could be studied during the Time and Place Domain when a class is investigating the events of World War 2. The Diary of Anne Frank would be an obvious choice here. Each classroom has a good stock of stage appropriate Literature from a variety of respected authors.

Children are actively encouraged to read books from this carefully chosen selection. Monitoring of reading logs ensures that children sample a broad and balanced variety of genre. Staff include a wide variety of genre by new and established authors within their teaching. Guided, Shared and Reciprocal Reading is an integral part of the learning experience for our children.

It is our aim for all children who have attended Lowbrook to be fully literate and have a love of books and reading.

### **Modern Foreign Languages (MFL)**

The school will teach about other cultures and languages within this domain. Our teaching often refers to aspects of MFL for example when it gives a better understanding and skill in English (Latin, French, Italian, Spanish or German).

The importance of **ICT** and Computing within this Domain.

*“Within the space of a few years schools have advanced far beyond what used to be called computer assisted learning, in which computers, like text books, were a pedagogical aid largely within the control of teachers. Now in such matters children are increasingly autonomous. Much of their out of school learning is electronic and out beyond the reach of their parents or teachers. They exchange messages and information by texting on their mobile phones and through online networking sites such as mySpace, Facebook, Twitter and Bebo. They seek material pretty well at will, using mobile phones, PC’s and laptops which are increasingly standard property in English households. In such matters, as Hargreaves shows, they are not merely passive surfers who read, watch and listen, but peerers who use electronic media to share, socialise, collaborate and create” Cambridge Review 2010.*

The Lowbrook curriculum treats ICT and Computing both as the cross curricular tool which it obviously is, and as an aspect of language curriculum which demands a rigour no less than should apply to the handling of the written and spoken word, and to traditionally-conceived text, information and evidence. Where teachers lack the required language and knowledge skills required ICT will be used to effectively promote MFL within the Domain.

### **Mandarin**

Mandarin Chinese is one of the fastest growing languages in the world, and it links well with other Domain areas such as Place and Time.

Having forged a partnership with the Swire Chinese Language Foundation, children at Lowbrook are being taught Mandarin from Year 2 upwards. Lessons are taught by a Chinese teacher from the Swire Foundation as well as more basic language by the class teachers themselves. Some lessons focus on learning Mandarin while other sessions focus on singing and arts/crafts.

In Key Stage 1, pupils learn to use basic vocabulary including words for numbers, colours, animals and food. They also learn some Chinese songs.

In KS1, the pupils learn basic sentences including greetings, self-introductions and conversations. The children also learn about Chinese calligraphy, using brush pens.

In Key Stage 2, the pupils learn basic sentences including greetings, self-introductions and conversations. The children also learn about Chinese calligraphy, using brush pens and learn how to write Chinese characters.

## Mathematics

“Mathematics is a creative and highly interconnected discipline that has been developed over centuries, providing the solution to some of history’s most intriguing problems. It is essential to everyday life, critical to science, technology, engineering and necessary for most forms of employment” NC England, 18 July 2014.

Lowbrook is now teaching the 2014 National Curriculum Programmes of Study in each year group as a basis for its curriculum and is adopting a ‘Mastery approach’ as outlined in the National Centre for Excellence in the teaching of mathematics. Teachers are reinforcing an expectation that all pupils are capable of achieving high standards in mathematics and teaching is underpinned by methodical curriculum design and supported by carefully crafted lessons and resources to foster deep conceptual and procedural knowledge. The school is teaching through the new distinct domains – Number- Measurement- Geometry and Statistics and will ensure all children make rich connections across the mathematical ideas to develop **fluency, mathematical reasoning** and competence in **solving** increasingly sophisticated **problems**. Also we will enable each child to apply their mathematical knowledge to science and other subjects.

Mathematical competencies are introduced early as is the rote learning of times tables these are seen as procedural tools to quicken problem solving at a later stage. This complements the rigorous approach to mental fluency arithmetic throughout the school.

*‘Fluency comes from deep knowledge and practice. Pupils work hard and are productive. At early stages, explicit learning of multiplication tables is important in the journey towards fluency and contributes to quick and efficient calculation. Practice leads to other number facts becoming second nature The ability to recall facts from long term memory and manipulate them to work out other facts is important’ NICE October 2014*

Our robust and coherent approach to using research surrounding the teaching of mathematics has undoubtedly increased progress and attainment across our school; as has our use of precise questioning in class (Blooms Taxonomy) to test conceptual and procedural knowledge, this allows us to assess pupils regularly and identify those needing intervention and support. We provide our children with high quality textbooks which allows pupils to return to topics studied, for consolidation and revision. These are becoming an important link between home and school as are the Mathematics Strategy booklets produced for parents in all year groups.

Financial literacy is also taught across this Domain; it is sometimes referred to as enterprise learning. Financial literacy is more than just learning about monetary computation, it extends into science and technology to include human and environmental impact.

Throughout the school we provide all children with full access to the curriculum, enabling them to achieve confidence and competence – ‘mastery’ in mathematics. We aim to equip the children with the mathematical skills, understanding and knowledge which will be of use to them in everyday life now and in the future. We want them to have fun and enjoy mathematics.

We believe through high quality teaching children:

- are given the confidence to be comfortable with numbers,

- are able to use and spell mathematical vocabulary
- will learn and practice mathematical skills,
- are able to make connections across mathematical ideas
- will have an exceptional knowledge and understanding of Geometry and measure and be able to apply this to the real world,
- will apply knowledge in other subject areas
- will have well developed mental mathematical skills,
- are taught to use their mathematics in problem solving and everyday life.
- are able to use a variety of technology to assist in their learning

Mathematics is taught daily as a discreet subject and is interwoven throughout other the curriculum areas. It is taught for at least 1 hour per day throughout the school (with the exception of Foundation stage).

### Science and Technology

*“A high-quality science education provides the foundations for understanding the world through the specific disciplines of biology, chemistry and physics. Science has changed our lives and is vital to the world’s future prosperity, and all pupils should be taught essential aspects of the knowledge, methods, processes and uses of science. Through building up a body of key foundational knowledge and concepts, pupils should be encouraged to recognise the power of rational explanation and develop a sense of excitement and curiosity about natural phenomena. They should be encouraged to understand how science can be used to explain what is occurring, predict how things will behave, and analyse causes.”* National Curriculum 2014.

*“The Science of today is the technology of tomorrow.”* Edward Teller

Science is our way of understanding the world we live in. Our Science and Technology curriculum has changed in light of the 2011 Cambridge Review and 2014 National Curriculum, and ‘Scientific Enquiry’ is now termed **‘Working Scientifically’**.

The principles of ‘Working Scientifically’ specify an understanding of the nature, processes and methods of science children should acquire in each year group, and is not taught as a separate strand. ‘Working scientifically’ is embedded within the content of biology, chemistry and physics, focusing on the key features of scientific enquiry, so that pupils learn to use a variety of approaches to answer relevant scientific questions.

In Science and Technology, children are taught scientific process through carrying out investigations. Types of scientific enquiry children will encounter over both key stages include:

- observing over time; pattern seeking;
- identifying, classifying and grouping;
- comparative and fair testing (controlled investigations);
- research using secondary sources.

Pupils should seek answers to questions through collecting, analysing and presenting data.

There were some new topics as part of the 2014 National Curriculum, such as ‘Evolution, inheritance and reproduction,’ ‘Teeth and the digestive system,’ and ‘The Human circulatory system and impact of exercise, drugs and diet.’ All topics are mainly of an investigative nature and incorporate the principles of ‘Working Scientifically’ which entails different elements in each Key Stage and within Key Stage 2.

It is our intent that pupils will be inspired by Design and Technology. We will aspire for them to be creative while designing and making products that solve real and relevant problems within a variety of contexts, considering their own and others needs, wants and values. Pupils will be taught to take risks, be resourceful, innovative and enterprising. Through evaluation of past and present design technology pupils will develop a critical understanding of its impact on daily life and the wider world.

It is the further intention of this Domain that children will understand the principles of nutrition and learn how to cook.

Children will leave Lowbrook ready for Secondary school with the skills and knowledge to excel in the Secondary Science and Technology curriculums.

### **Implementation**

The allocation of time set out below is the starting point for planning, however the art in teaching is not determined by time and it is expected that teachers will act professionally within these guidelines to allocate appropriate and effective amounts of time to each area as they feel fit.

Some subjects or units of work may be taught in blocks; or more frequently during themed weeks, therefore the weekly figure is nominal only. In the Foundation Stage 1 and 2, the overlap of Areas of Learning makes hourly time allocation inappropriate. Pupils at Key Stage 1 have opportunities for child-initiated or directed play.

In line with the recommendations outlined within the Cambridge Review each class works towards 30% of the curriculum being designed around our own distinctive locality. The curriculum will be planned and delivered by the class teachers, specialist teachers, higher level teaching assistants, teaching assistants and where appropriate coaches, artists, **scientists** and musicians.

	<b>Primary Phase (Year 2)</b>		<b>Primary Phase (Year 3-6)</b>	
	<b>Hours per Year</b> <b>(in decimal form)</b>	<b>Hours per week</b> <b>(in decimal form)</b>	<b>Hours per Year</b> <b>(in decimal form)</b>	<b>Hours per week</b> <b>(in decimal form)</b>
<b>Science and technology</b>	72	2	99	2.75
<b>ICT and Computing (cross curricular)</b>	23.76	0.66	47.88	1.33

Design and Technology will be linked to Science lessons and will be a main focus in terms 2, 4 and 6. As part of this Domain, children will learn to design products, make them (including prototypes) using a range of materials and processes and then evaluate their designs, suggesting areas for improvement using working scientifically through these challenges.

Science and Technology is taught as a discrete subject through units of work, which are largely based on the National Curriculum objectives, the Hamilton Trust research and lesson plans incorporating wider research and resource materials as appropriate to the year group and child.

Design and Technology objectives from the National Curriculum are linked to Science units to make their learning experience more meaningful and relevant. Further Science and Technology is taught throughout other Domains as and where appropriate.

If an opportunity arises, staff are encouraged to use it. If it snows, there will be **no** snow day for us: instead, how snow forms, the structure of a snow flake and the designing of tools to keep our school open may well become our focus for the day.

Natural events, visitor opportunities and local initiatives will also grab our attention and warrant curriculum exploration and time in this Domain.

Understanding nutrition and the skills of cooking are deemed important at the Academy and are therefore taught in each year groups. The school has its own gardens for growing and learning about seasonality.

It is our belief that consolidation of learning and knowledge is fundamental; and therefore creating '***Awe and Wonder***' within our Science and Technology curriculum is key to this. The development of the **Science and Technology Week** has been hugely influential with our pupils in achieving this. Annually we design a whole week of science where age-appropriate activities, experiments and lessons are designed into our curriculum. Experts from the world outside school are planned for and invited in to work with the children; trips are made to Secondary School labs; Science Specialists come to school to work with the children; equipment beyond the school's means are used; visits to industry and Science Museums are planned; and parents join us at school to tell us about how Science and Technology is used in their work place.

Science and Technology week is a highlight of the Academic year and is used to complement and enrich our weekly curriculum.

### **Information Communication Technology (ICT) and Computing**

It is the view of the Academy that ICT and Computing is not conceived as a separate Domain. This is also the view of the Cambridge Review. The three aspects of Computing i.e. Computer Science, Information Technology and Digital Literacy which are essential to a modern concept of literacy and to an effective communication are within Language, Oracy and Literacy. The many other applications of ICT and Computing are developed through the other domains.

Computing is used as a resource, communication and learning tool. It prepares children for life in the environment beyond school. This is supported by a range of computers and equipment available to all classrooms including:

- laptops and IWB
- Visualisers
- Ipads
- C.D players
- Computing Software and Apps



- Netbooks
- DSi's
- Lego Mindstorm, pro bots and bee bots
- Digital cameras
- GPS devices
- Control technology equipment- Lego robots controlled with sensors

ICT and Computing skills and the use of specific software, apps, and where applications are taught in the ILE, classrooms and outdoors where appropriate. The use of the laptops, iPads, and the ILE are timetabled to ensure that all classes have the opportunity to make appropriate and meaningful cross-curricular links between ICT and other subjects. At Lowbrook we aim to ensure pupils understand what algorithms are, how they are implemented as programs on digital devices, and how to execute programs by following sequences of instructions, e.g. scratch.

In Year 3 all children are taught to touch type as a skill that will complement ICT and computing across all Domains. Please refer to the ICT provision map for details of year group coverage.

### **Place and Time**

This principally includes how History shapes culture, events, consciousness and identity and the lessons which it offers to our understanding of present and future; and geographical study of location, other people, other places and human interdependence, locally, nationally, and globally. Like the arts, this domain and its contributory disciplines stand in need of proper public and political recognition of their importance to children's understanding of who they are, of change and continuity, cause and consequence, of why society is arranged as it is, and of the interaction of humankind and the physical environment. In opening up children's understanding of these matters the domain may range beyond the boundaries of what is conventionally included. This Domain is central to the advancement of a number of proposed aims, notably, respect and reciprocity, interdependence and sustainability, local, national and global citizenship and culture and community. Place and Time is taught as part of a topic based approach where children are encouraged to:

- Research independently,
- Use artefacts and historical documents,
- Record information in a variety of forms,
- Develop opinions and attitudes towards historical events,
- Recognise the influence that history has had on the present,
- investigate the human and physical features of their local area and contrasting localities,
- ask questions about the world around them,
- experience purposeful fieldwork studies,
- use a range of technology and digital equipment,
- find important links between Time and Place and core curriculum subjects,
- use their own school setting as a resource for sustainability,

Place and Time, not only provides links to other curriculum areas but lies at the heart of the children's everyday lives, showing how the past can impact upon the present and ultimately, the future. The domain area aims to equip children with the basic skills required to be confident and capable members of the community, as well as appreciate the importance of the role they play in respecting and preserving the society they are a part of. Lastly, Place and Time provides a platform with which children can communicate their ideas and query the existing world around them. For



many, Place and Time will be the first time that ‘big questions’ about the world have been asked and is an opportunity for such questions to be debated and philosophised.

### **Arts and Creativity**

*The renaissance of this domain which takes in all the arts, creativity and the imagination, is long overdue. A vigorous campaign should be established to advance public understanding of the arts in education, human development and culture in national life. There should also be a much more rigorous approach to the teaching of arts in schools. However, creativity is not confined to the arts. Creativity and imaginative activity must inform teaching and learning across the curriculum.”*  
*Cambridge Review 2010.*

This Domain is based on Art and Creative work across a wide range of platforms and domains. Work is derived and developed within:

- Combined Arts
- Dance
- Literature
- Music
- Theatre
- Visual Arts
- Library Study
- Gallery Visits
- Film
- Contemporary Craft and heritage
- Exploration

Through these platforms all children are encouraged to express their ideas and feelings and communicate with each other and engage within the wider community.

All of our work in the Arts is based on the seven Arts Council quality principles:

1. Striving for excellence and innovation
2. Being authentic
3. Being exciting, inspiring and engaging
4. Ensuring a positive and inclusive experience
5. Actively involving children and young people
6. Enabling personal progression
7. Developing belonging and ownership

Our Arts and Creativity Domain consolidates learning and knowledge through creating ‘Awe and Wonder’. The development of the school’s Arts and Culture Week has been hugely influential in our pupils achieving this. Held annually, external experts are planned for and invited in to work with the children to extend their knowledge and expertise in the arts – these may include local artistes, dance troupes, craft specialists and musicians. Class trips and visits to theatres and galleries are organised and parents visit the school to share their background and cultures. The week culminates with class performances and an International Food Fair which is attended by parents and pupils

## **Art**

Art, craft and design embody some of the highest forms of human creativity. Our high quality art and design curriculum engages, inspires and challenges pupils, equipping them with the knowledge and skills to experiment, invent and create their own works of art, craft and design. Art and Design is taught as a discrete area and is often linked to topic work in other domains. We are increasing our use of 'artistes' in school to further enhance our creative curriculum and we use artistes in residence on a rotational basis across all year groups.

Our aim is for all children to:

- Produce creative work, exploring their ideas and recording their experiences
- Become proficient in drawing, painting, sculpture and other art, craft and design techniques
- Evaluate and analyse creative works using the language of art, craft and design
- Know about the great artists, craft makers and designers, and understand the historical and cultural development of their art forms.

## **Music**

Music plays an important part in the life of the school and we are supportive of OFSTED's claims that music can have a considerable impact on the whole school. Our aim is for all children to:

- Play and perform in sole 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

Children throughout the school are invited to join the choir and are able to perform to audiences throughout the academic year. Our large choir participates in many community and charity events, some of these are in partnership with other schools. There are opportunities to be taught to play a musical instrument by specialist teaching and visiting instrumental teachers.

All children have the opportunity to play untuned percussion instruments. We believe that children should be given the opportunity to showcase their talent and pupils are regularly given forums to

perform e.g. Christmas Productions, Class Assemblies and the annual Arts & Culture Week performances to name but a few.

Music is primarily taught by a specialist 'artiste' as a discrete area and often cross curricular links are made with art, dance and work in other domains. Professional musicians are regularly used to extend and enhance the music curriculum. Lowbrook has an excellent range of tuned and untuned instruments to support this curriculum.

### **Dance**

At Lowbrook Academy, dance enables pupils to express themselves creatively and imaginatively and to communicate with others effectively. As a school, we aim to give children the opportunity to use dance across the curriculum as an effective means of communicating ideas. Practical learning can be crucial to understanding.

Our aim for all children is to:

- enjoy the subject and study it with a sense of achievement
- develop an understanding and appreciation of a range of dance skills and styles
- develop and extend their own interests and abilities
- develop the capacity and confidence to express ideas and communicate them through dance
- have opportunities for presenting performances individually and in groups
- evaluate their own, and others' contributions to dance and suggest improvements.

### **Drama**

Drama has an important part to play in the personal development of all Lowbrook pupils. It develops skills such as teamwork, creativity, leadership and risk-taking. Through Drama our pupils can explore a new role, try out and experiment with various personal choices and solutions to problems faced by characters in literature or historical figures or those that mirror problems from their own lives. This happens in a safe environment, where actions and consequences can be examined, discussed and experienced without the dangers and pitfalls that such experimentation could lead to in the real world. Drama stimulates the imagination and allows our pupils to explore issues and experiences in a safe and supportive environment; it teaches them the skills of empathy and sympathy. It promotes self-esteem and provides all pupils with a sense of achievement. Drama opportunities are exploited whenever possible through all curriculum areas for example hot seating is a regular feature in lessons. The school regularly use our local Arts centre Norden Farm to view and participate in performances and the upper years perform in Shakespearian workshops at The Globe Theatre.

The Academy is currently a Gold Artsmark school and continues to develop creativity through this framework.

*Creativity, of course is not confined to the arts, but it also entails what the Robinson enquiry called the 'democratic definition' of creativity, which 'is equally fundamental to advances in the sciences, in mathematics, technology, politics, business and in all areas of everyday life' and which has four features: pursuit of purpose, the use of imagination, originality, and the exercise of discriminating judgements of value. The arts are indelibly creative, and properly pursued they achieve the aim of*

*‘exciting the imagination’ which features in our list of 12 aims. But we have also stressed that both creativity and imaginative activity can and must inform teaching and learning across the wider curriculum. Cambridge Review 2010.*

We have sustained partnerships with ‘artistes ‘ in all discrete areas and together with our numerous arts community projects, standards of work in art and the performing arts are constantly extended with challenging work and fresh approaches.

### **Physical and Emotional Health**

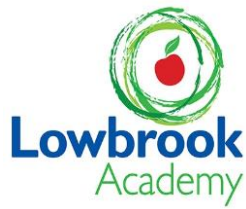
This Domain deals with the handling of human emotions and relationships and with the human body, its development and health, together with the skills of agility, coordination and teamwork acquired through sport and PE as conventionally conceived. In line with the Cambridge Review we believe that it makes sense to group together physical and emotional health, and indeed for health as such to be named as a mandatory component of the child’s curriculum for the first time. Our aim is to develop enjoyment and an understanding of physical fitness and how the body works, teamwork and participation. During the twice weekly hour long sessions all children participate in a range of physical activities including:

- Gymnastics
- Athletics
- Swimming
- Dance and Movement
- Skills and Games

PE is a foundation subject in the National Curriculum. Teachers refer to and use the objectives for each key stage. In key stage one, children participate in team games, developing tactics and defending. Through dance they perform using simple movement patterns and develop balance, agility and coordination. In Key stage two the children use running, jumping, catching and throwing in isolation and in combination. The children develop flexibility control and balance through gymnastics and athletics. All children receive specialist teaching and participate in a range of adventurous activity such as kayaking and climbing.

The sports premium funding allows the school to fund all children unable to swim 25meters to receive extra coaching, ensuring all children are confident swimmers by the end of the primary phase. Premium funding is also used to provide specialist training ensuring all children receive high quality coaching and staff are confident with high subject knowledge.

Lowbrook is an active member of the Charters Sports Partnership. Sex education is delivered within this Domain and has close links to Science and technology. A comprehensive Sex and Relationships policy underpins this teaching and is to read in conjunction with this policy. Sport is by nature competitive and we believe that if children are to truly excel in this subject competition must be an integral part of their learning. As an Academy we plan inter house tournaments which provides every child with the opportunity to compete and these are therefore included in the curriculum. Teams will be entered wherever possible into Borough-Wide Competitions enabling our most talented pupils to be given the opportunity to perform at the highest possible level. PE, like any other curriculum area is differentiated to cater for all abilities ensuring that all children gain a positive experience from their learning.



Complementing this physical work will be the theory, knowledge and understanding of our body and what makes us healthy and a close link to the SEAL activities and objectives within the citizenship and ethics domain developing the children's emotional literacy.

### **The Daily Mile**

In 2016 an all-weather running track was installed so that the children could continue to run the Lowbrook mile during the winter months. The #dailymile as it is now known, began at St Ninian's School 3 years ago. The results were obvious but still surprised even the most discerning of fitness fanatics. They found that; obesity levels dropped, behaviour in class improved and after about 4 weeks the parents reported that the children also eat and sleep better. It therefore made sense for us to emulate this programme here at Lowbrook.

After the first year, we found that the school field was too muddy for us to continue. This summer we were successful in attaining a grant from Spoore, Merry and Rixman to install a small all-weather track that the children could run around. Here's hoping that the school experiences the same benefits as St Ninian's and the now thousands of schools that run the daily mile around the country.

Our competitive nature is never far from school development, however, as always we are sensitive to those that find this type of activity challenging and we will find innovative and motivational ways of engaging these children- e.g. rewards, heading off in similar ability groups, etc. The Growth Mindset approach is therefore applied to the daily mile, rewarding effort. This is linked to the science of exercise throughout the school at appropriate ages reinforcing the link between exercise and health.

### **Faith and Belief (RE)**

The teaching of RE has been a statutory requirement since the 1944 education act and is a key component of our funding agreement with the DFE. ***The Academy trust shall make provision for the teaching of religious education and for a daily act of collective worship at the Academy.***

The Units of Work in RE are taught as a discreet subjects, following the Berkshire agreed syllabus however if curriculum links can be exploited we do so. For example the linking to Ethics and Citizenship to religious teaching makes imminent sense.

The main focus of KS1 is to learn about Christianity and Judaism. As well as Judaism and Christianity, KS2 also learn about other world religions, including Buddhism and Sikhism. The aim of the 2014 National Curriculum is question based and includes much discussion as well as research and enquiry. This approach takes very seriously the philosophy that children are free to make their own choices and decisions concerning religion and belief. Faith and Belief does not try to persuade, but rather to inform and develop the skills with which evaluation can take place.

The Faith and Belief curriculum has been designed into specific units and agreed by the Governing body.

The Cambridge Review perspective:

*Religion is so fundamental to this country's history, culture and language, as well as to the daily lives of many of its inhabitants, that it must remain within the curriculum, even though some Review witnesses argued that it should be removed on grounds that England is predominantly a secular society or that religious belief is a matter for the family. Non-denominational schools should teach*

*about religion with respect and understanding, but they should also explore other beliefs, including those questioning the validity of religion itself.*

The school currently has a statutory responsibility to undertake a daily act of worship. Parents have the statutory right to withdraw pupils from RE and worship if they so wish.

### **Citizenship and Ethics**

At Lowbrook we aim to educate the child as a whole person. Much of the Citizenship and Ethics curriculum is delivered through the use of SEAL (Social and Emotional Aspects of Learning) materials. Linked to this, we have 'Philosophy Circles'. During these lessons, children are taught how to create their own philosophical questions. They then choose one question that is the focus of a philosophical enquiry, or dialogue. For example, the question might be, "Is it ever ok to steal?" Through these questions and discussions, pupils can discuss issues, feelings and concerns. They are also able learn about how to deal with feelings and conflict, how to keep themselves safe and the skills of resilience and self-reliance. 'Philosophy Circles' are a weekly and regular timetabled activity to ensure that the children develop their skills and understanding over time.

Older children are trained as Play Leaders and Peer Mediators to help younger children learn these skills outside the classroom during recreational time.. Health professionals are a valued resource for this domain and are used wherever possible. Citizenship objectives that are not covered by SEAL are taught as part of this of Domain and in assemblies.

The Domain of Citizenship and Ethics has both Global and national components and includes the values, moral codes, customs and procedures by which people act, coexist and regulate their affairs. This domain stems from widespread concern about growing selfishness and material greed. It intersects clearly with a number of our aims: encouraging respect and reciprocity and promoting interdependence and sustainability, celebrating culture and community and exploring knowing, understanding and making sense.

We have a School Council and these children meet with every class before bringing representation to the Senior Leadership Team. Pupil voice is an integral part of our ethos at Lowbrook.

The schools Domain of Citizenship and Ethics which incorporates SEAL and existing practices such as Philosophy Circles and Peer Mediation are essential if the school is to achieve its overall aim and go a long way to developing and enhancing the school's positive ethos created and encompassed by our vision.

### **British Values**

The understanding and exploration of British Values pervades this Domain. These values are: -

- Democracy
- The rule of law
- Individual liberty
- Mutual respect for and tolerance of those with different faiths and beliefs and for those without faith.

## **Areas of Learning & Development – Foundation Stage and Year 1**

The Early Years Foundation Stage, which underpins the curriculum, is distinct in its identity. The curriculum is planned in accordance with the framework 'The Early Years Foundation Stage Statutory Framework March 2017'.

Under the guiding theme of Learning and Development there are seven clear areas of learning:

The prime areas are:

### **Communication and Language**

Phonic skills are developed through daily phonic lessons through which the children begin to learn to read and write. The phonics programme is based on the DCSF's 'Letters and Sounds' document. Directed play activities and circle time allow opportunities for speaking and listening.

### **Physical Development**

PE lessons are timetabled to take place every week, following gymnastic, dance and games schemes of work. In addition children's fine and gross motor skills are developed through topic based activities.

### **Personal, Social and Emotional Development**

Children engage in a range of activities enabling them to play co-operatively and develop positive relations. In addition children participate in weekly circle time activities promoting positive relationships and sensitivity to others.

### **Maths**

Daily Mathematics lessons teach children the key skills such as counting, addition, subtraction, shape recognition and money. Further mathematical activities are planned throughout the week relating to the topic being taught.

### **Understanding the World**

History, Geography and Science for the basis for topics that are studied across the Foundation Stage. Children also begin to learn ICT skills.

### **Expressive Arts and Design**

Discrete music lessons are included in the weekly timetable, following the Music Express schemes of work. Children also take part in other daily creative activities allowing them to explore media and materials and use their imagination. These activities are usually linked to the current topic.

The development of each child is recorded through the use of assessment scales which provide an accurate and detailed insight into the progress made by the individual. Observations made of each child in a variety of environments and learning situations ensure that an accurate recording of individual attainment is made. With a comprehensive view of the level of development for each child, an appropriate and challenging curriculum can be delivered to ensure the needs of the individual can be met effectively.



These areas of learning are extended and combined with the National Curriculum as the children progress into Year 1 before they enter the schools primary phase and work within the eight Domains outlined above.

### **E-safety**

E-safety will be a focus in all areas of the curriculum and staff will reinforce e-safety messages across the curriculum. The e-safety curriculum will be broad, relevant and provide progression, with opportunities for creative activities and will be provided in the following ways:

- A planned e-safety curriculum is provided as part of Computing / Physical and Emotional Health lessons/ other lessons and will be regularly revisited
- Pupils are helped to understand the need for the Pupil Acceptable Use Agreement and encouraged to adopt safe and responsible use both within and outside school
- Staff act as good role models in their use of digital technologies, the internet and mobile devices
- In lessons where internet use is pre-planned, it is best practice that pupils are guided to sites checked as suitable for their use and that processes are in place for dealing with any unsuitable material that is found in internet searches.
- Where pupils are allowed to freely search the internet, staff are vigilant in monitoring the content of the websites the young people visit. Where Smoothwall identifies possible breaches these are investigated immediately.

### **Equal Opportunities**

All pupils will have equal entitlement to access the Curriculum as delivered through the School's Policies and Schemes of Work.

### **Review of Policy**

The Policy will be reviewed as necessary, in the light of any changes made to the School Curriculum and/or the National Curriculum.

### **Related Policies**

Charging and Remissions  
Single Equality and Disability Equality Scheme  
Assessment

SEND  
Early Years Philosophy

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The Governing Body approved this policy on date: **7<sup>th</sup> December 2018**

Signed:

Chair of Governors

Signed:

Executive Principal