Confidence, Achievement, Respect, Enthusiasm

Policy Title: Computing

Policy Folder: Subjects

Last Review: May 2022

Next Review: May 2025

Led By: Louise Halliwell

Responsible Committee: SD Committee

Introduction

Alongside our curriculum intent, our CARE values (confidence, achievement, respect, enthusiasm) underpin everything that we do as a school. We all aim for our school to be a happy place where good behaviour is expected and all children enjoy their educational journey.

At Lantern Lane, we aim to be a Dyslexia Friendly School. It is our intention that pupils will be able to achieve their cognitive potential in computing, regardless of any difficulties spelling, reading, writing or any other traits commonly associated with Dyslexia. In order to achieve this potential, teaching will apply principles of quality first teaching such as reducing cognitive load and providing scaffolding. Where reading is required, appropriate support will be provided (for example, paired reading, pre-reading opportunities, inclusive tech). Pupils will be given a variety of ways to show their understanding across a sequence of learning, appropriate to the learning intention (for example diagrams, labelling, cloze activities, oral presentations, group work).

In our teaching of computing, we also contribute to the development of the children's spiritual, moral, social and cultural understanding by using the internet as a gateway to explore big issues and providing opportunities for children to explore their creativity and imagination when developing digital products. We consider the benefits and potential dangers of the internet as well as exploring the moral issues surrounding the use of data, trust, copyright and plagiarism. Social development is considered through promoting good online etiquette and through collaborative learning. Cultural development fosters an awareness of the children's audience when communicating in a digital environment.

We aim to prepare our children for their future by giving them the opportunities to gain knowledge and develop skills that will equip them for an ever-changing digital world. Knowledge and understanding of ICT is of increasing importance for children's future both at home and for employment. Our Computing curriculum focuses on a progression of skills in digital literacy, computer science, information technology and online safety to ensure that children become competent in safely using, as well as understanding, technology. These strands are revisited repeatedly through a range of themes during children's time in school to ensure the learning is embedded and skills are successfully developed. Our intention is that Computing also supports children's creativity and cross curricular learning to engage children and enrich their experiences in school.

This policy has been written to formally record the teaching, monitoring and assessment of computing at Lantern Lane Primary & Nursery School.

The policy aims to:

- Identify what is intended to be taught and how it should be implemented.
- Identify the overall structure and framework of the computing curriculum in the school.
- Identify the ways in which we will ensure that children make progress in this subject throughout their time at the school.
- Describe how impact of the quality of education in this subject will be evaluated.
- Identify school procedures to monitor and evaluate the computing curriculum.

This policy will be reviewed every three years by the subject co-ordinator, as part of the school's policy review cycle. The policy will, however, be reviewed earlier if there are changes to the National Curriculum, or other significant changes which impact on the teaching and assessment of this subject. The implementation of this policy is the responsibility of all teaching staff

Intent

At Lantern Lane Primary School, we follow the Early Years Foundation Stage Framework (2021) and the National Curriculum (2014). We fully support the purposes of the National Curriculum (2014) in computing, which looks to provide every child with:

"A high-quality computing education equips pupils to use computational thinking and creativity to understand and change the world."

Through the learning and opportunities we plan for at Lantern Lane, and through rigorous formative assessment, we aim to support each child in the development of each of the following key aims of the computing curriculum:

- Understand and apply the fundamental principles and concepts of computer science, including abstraction, logic, algorithms and data representation
- Analyse problems in computational terms, and have repeated practical experience of writing computer programs in order to solve such problems
- Evaluate and apply information technology, including new or unfamiliar technologies, analytically to solve problems
- Be responsible, competent, confident and creative users of information and communication technology.

Through our engagement with the National Curriculum and our commitment to providing outstanding provision for every child in the subject of computing, we intend the following:

To prepare our children for their future by giving them the opportunities to gain knowledge and develop skills that will equip them for an ever-changing digital world. Knowledge and understanding of ICT is of increasing importance for children's future both at home and for employment. Our Computing curriculum focuses on a progression of skills in digital literacy, computer science, information technology and online safety to ensure that children become competent in safely using, as well as understanding, technology. These strands are revisited repeatedly through a range of themes during children's time in school to ensure the learning is embedded and skills are successfully developed. Our intention is that Computing also supports

children's creativity and cross curricular learning to engage children and enrich their experiences in school.

Implementation

We use the National Curriculum scheme of work as the basis for our planning in computing but we have adapted this to our local context, building on the successful units of work already in place. We ensure that there are opportunities for children of all abilities to develop their skills and knowledge in each unit, and we plan progression into the scheme of work, so that the children are increasingly challenged as they move through the school.

Learning in Year 1 to Year 6 is arranged half-termly and each year group revisits skills and specific programmes in order for the children to develop and enhance their understanding and skills with computing foci or specific hardware.

The subject leader has written and continually reviews the curriculum map for computing. This details the objectives and skills to be taught for each year group. Teachers use the curriculum map for their year group, and knowledge of prior learning from the curriculum map, in order to develop a coherent and comprehensive conceptual pathway through the new learning. In computing, the key knowledge to be taught for each unit of work is carefully detailed in the curriculum map and knowledge organisers are available to support staff knowledge and development.

We aim to give our pupils the life-skills that will enable them to embrace and utilise new technology in a socially responsible and safe way in order to flourish. We want our pupils to be able to operate in the 21st century workplace and we want them to know the career opportunities that will be open to them if they study computing. We want children to become autonomous, independent users of computing technologies, gaining confidence and enjoyment from their activities. We want the use of technology to support learning across the entire curriculum and to ensure that our curriculum is accessible to every child. Not only do we want them to be digitally literate and competent end-users of technology but through our computing lessons we want them to develop creativity, resilience and problem-solving and critical thinking skills. We want our pupils to have a breadth of experience to develop their understanding of themselves as individuals within their community but also as members of a wider global community and as responsible digital citizens.

We recognise that in all classes children have a wide range of ability in computing, and we seek to provide suitable learning opportunities for all children by matching the challenge of the task to the ability of the child.

We achieve this by:
setting tasks which are open-ended and can have a variety of responses;
setting tasks of increasing difficulty, some children not completing all tasks;
providing resources of different complexity, depending on the ability of the child;
using teaching assistants/teachers to support children individually or in groups.

What good teaching and learning looks like in computing at Lantern Lane:

Teachers	Pupils
EYFS	
• Share age related software and model how to use it with children • Talk about how technology is used around the home and at school • Provide a range of tasks that enhance the EYFS curriculum through technology eg art packages and learning games • Provide hardware children can use to accomplish a task eg taking a photo or recording sound	• To know that information can be retrieved from computers. • To interact with age-appropriate computer software. • To recognise that a range of technology is used in places such as homes and schools. • To select and use technology for particular purposes.
KS1 and 2	
• Identify the software that supports their teaching and understand how to use it (seeking support when required). • Use resources that support their knowledge of what they are teaching eg iLearn2.co.uk or Scratch website. • Sequence lessons in logical steps so skills can be mastered. • Remind children of the need to work safely online in school and at home. E-Safety is fundamental to our futures and the way we live. • Teachers check children's understanding and support them to use software. • Teachers use questioning and tasks to check in on children's prior learning. Progression within each year group reflects skills they will have previously been taught.	• Children work safely online using appropriate language and reporting any concerns. • Children work effectively on a shared device showing the ability to take turns and discuss processes and actions. • Children should be challenged to persevere, especially when debugging in coding. • Children should know how to use a range of software to accomplish tasks. • They should complete tasks that teach and embed computing skills (eg word processing/excel/saving files) and use these across a variety of tasks and topics. • Learn about specific applications that support computing eg art packages, Scratch, GarageBand etc • Understand that we are all part of a much larger, global network when we work online.

Feedback

Feedback in computing should be completed in line with the Lantern Lane Primary School Feedback Policy.

When choosing the correct form of feedback, teachers should use their knowledge of their class, individual groups and pupils whilst also considering the main purpose of the feedback they are giving.

In addition, it is recognised that the type of feedback chosen is likely to vary accordingly to the age or learning stage of the child.

Feedback should be given as close to the point of learning as possible, e.g. within the lesson; at the end of the lesson, or at the start of the next lesson in the sequence of learning.

The following feedback codes are used across KS1 and KS2 to ensure consistency and a clear message for children.

The use of codes is intended to make feedback accessible to all children including our dyslexic children and those with SEND (with this being regularly monitored by the SENCo and/or Dyslexia Lead).

Code	Explanation		Code	Explanation
E	You have used equipment to support your learning.		GW (with initials)	A teacher or teaching assistant guided your work here.
✓ Beside LO.	You are ***developing learning*** in relation to the learning objective.		PW/PW	You worked together with a partner on your work here.
✓✓ Beside LO.	You are ***securing learning*** in relation to the learning objective.		CR	You have a correction to complete here.
✓✓✓ Beside LO.	You are ***mastering learning*** in relation to the learning objective.		CH	You have a challenge to complete here.
●	Answer to individual question is incorrect. Complete a correction in purple pen.		✓	Self-assessed. Answer to individual question is correct.
✓	Answer to individual question is correct.		●	Self-assessed. Answer to individual question is incorrect. Complete a correction in purple pen.
VF	Verbal feedback. Your teacher has explained further to support your progress.		WCF	You will receive your feedback as a whole class in the next lesson.

For written pieces of work in computing, both the related enquiry question (see curriculum details on the Lantern Lane website) and the skills being taught will be identified. The teacher will indicate the degree that these have been met with the same √ system detailed above. Feedback in foundation subjects will predominantly relate to the subject-specific learning but may also feature some response in respect of core subject targets personal to the child, group or class.

A question or challenge may be given to support deeper thinking on the part of the pupil, where the teacher considers this to be appropriate, or a child may be asked to correct their work in some respect. Where this is the case, time will be given in a subsequent lesson for children to respond to the teacher's feedback.

Children in the EYFS are motivated by their relationships with the adults, who know them best. The everyday conversations and celebrations of learning which take place in the moment are what stands out for the children and how they measure their own success. Class rewards systems are designed to ensure that children are shown what is good about their work in a range of ways that have meaning to them, e.g. receiving a sticker, a house point. A discussion will take place when the reward is given about why it has been earnt.

In respect of areas of development, next steps for children are often put into practice before the child has even left the activity. For example, if a child doesn't use a finger space between the first 2 words, they are reminded in the moment to do so. Accordingly, there is no need for extensive written feedback by staff, especially as this will have no meaning to the children themselves. If corrections or a comment are added to a piece of work, this would be when an adult is working directly with a child to reflect on what has been achieved.

Teaching staff will, however, use the following codes to show the context of the piece of work.
GW – this piece of work has been completed with the help of an adult.
PW – this piece of work has been completed with the help of a peer.
Where neither of these codes appears, the assumption is made that the work was completed independently by the child.

Impact

The curriculum in itself is the progression model. We have a well-constructed, well-taught curriculum mapped out in computing at Lantern Lane and this leads to good results because those results reflect what pupils have learned. If children are keeping up with a carefully sequenced, coherent curriculum which builds on prior learning, they are making progress.

The table below provides a framework against which is used to support the evaluation of impact in computing.

The curriculum is progressive and is pitched to be appropriately challenging. Therefore, if teachers know that children are coping well and are able to demonstrate their understanding, then our curriculum is having the desired impact and children are making progress.
Subject leaders undertake a full range of monitoring and evaluation is order to establish that our curriculum is having impact based on the below prompts.

How do we monitor that our curriculum is having impact?

Lantern Lane Primary School

Teachers

- Have they become more knowledgeable?
- Do they have high levels of confidence in implementing all areas of the curriculum?
- Can they articulate to senior leaders and subject leaders what is working well?
- Are they keenly aware of how children are coping with the taught content?
- Do they teach consistently well, applying sound pedagogical practices in all lessons?
- Do they plan coherent learning journeys based on the objectives and skills mapped out by the subject lead?
- Do they seek support from subject leads where they are less confident?

Children

- Can they talk with confidence about what they have learned?
- Are they enthused and interested in a wide range of curriculum areas?
- Can they talk about the specific characteristics and skills associated with each subject?
- Can they share examples of their learning and explain the 'why' behind the work they have produced?
- Do they demonstrate good learning behaviours in all lessons?
- Are they able to explain how their learning within a subject builds on previous learning in that area?
- Are they able the make thoughtful links between subjects?
- Are ALL learners able to access, enjoy and make progress within the curriculum – regardless of their starting points or additional needs?

Children's Work

- Does work demonstrate they take pride in what they produce – do children show the same effort as in maths and English for example?
- Does it show increasing understanding of the key concepts within each subject?
- Does it illustrate developing understanding of the discipline of each subject as well as the declarative knowledge?
- Does it show a coherent teaching sequence has taken place?
- Does it show an emphasis on subject specific vocabulary?

Governors

- Do they give positive feedback about behaviour and engagement in lessons?
- Do they comment on seeing high quality work and outcomes?
- Do they report that leaders are clear about strengths and weaknesses and have clear plans to address areas for development?

Ref: Adapted for Lantern Lane based on work by @DynamicDeps

As our curriculum is the progression model, and formative rather than summative assessment and responsive teaching is the most important type of assessment used by class teachers in the wider curriculum, subject leaders and senior leaders monitor this using the quality assurance model detailed below.

Quality Assurance Model		
Subject Leaders Support and Challenge	**Subject Leaders Independent Quality Assurance**	**Subject Leaders and Senior Leaders Collaborative Quality Assurance**
Through own teaching, model key pedagogy for colleagues: Whole school development priorities relevant to subject area Key aspects of what a good lesson looks like in _____ Known areas of development Individual requests from class teachers Support teachers to: Interpret curriculum maps for subject Plan well-constructed sequences of lessons which build on prior learning Develop own subject knowledge Reflect how well teaching meets what a good lesson looks like in _____ Team teach Keep records of strengths and areas of development for individuals and use this to inform sustained working with colleagues.	Is the curriculum being implemented as intended? Are the elements of what a good lesson looks like in _____ being used? Are all staff developing key priorities within the subject area (both subject specific and whole school priorities)? Is the curriculum meeting the needs of all staff and pupils? Monitoring and evaluation: Planning audits Lesson visits Looking at books Teacher and pupil voice Update records of strengths and areas of development for individuals/teams and use this to inform sustained working with colleagues.	Discussion of subject leaders' judgements and evidence base through termly subject leader meetings. Joint analysis through: Planning audits Lesson visits Looking at books Teacher and pupil voice Updating of whole school SEF based on improvement priorities identified by subject leaders monitoring and evaluation. Collaboratively establish any CPD priorities which are whole/part school.

Inclusion and Special Needs

Lantern Lane aims to meet the needs of all, taking into account gender, ethnicity, culture, religion, language, disability, age and social circumstances. The provision for children with special needs is detailed in the SEND Policy. SEND pupils may be supported by additional adults, different resources or differentiated activities. We have high expectations of all children and strongly believe that all children are able to achieve in computing. Some may take longer to grasp concepts and may need careful scaffolding or extra time/support.

Early Years Foundation Stage (EYFS)

In EYFS, most intended topics are taught over half a term with links made, where appropriate, between both the prime and specific areas of learning. The specifics of what is taught is directed - in part - by the children themselves and their particular interests. The EYFS framework no longer has explicit objectives relating to computing but the following statements from the Development Matters are prerequisite skills for computing within the National Curriculum.

In F1:

Personal, Social and Emotional Development - Managing Self

1. Be confident to try new activities and show independence, resilience and perseverance in the face of challenge.
2. Explain the reasons for rules, know right from wrong and try to behave accordingly.

Expressive Arts and Design – Creating with Materials

3. Safely use and explore a variety of materials, tools and techniques, experimenting with colour, design, texture, form and function

This may take the form of taking photos, using electronic toys, using apps to enhance their provision and beginning to think about coding by following instructions.

In F2:

Personal, Social and Emotional Development

1. Show resilience and perseverance in the face of a challenge.

Physical Development

2. Develop their small motor skills so that they can use a range of tools competently, safely and confidently.
3. Know and talk about the different factors that support their overall health and wellbeing: -sensible amounts of 'screen time'.

Expressive Arts and Design

4. Explore, use and refine a variety of artistic effects to express their ideas and feelings.

This may take the form of taking photos, learning about safety through stories, using apps to enhance their provision, using art packages to practise a wide range of skills and beginning to code through giving instructions with hardware like Beebots.

Role of the Subject Leader

• Ensures teachers understand the requirements of the National Curriculum and supports them to plan lessons. Leads by example by setting high standards in their own teaching.

• Leads continuing professional development; facilitates joint professional development; provides support and feedback for teachers to improve pupil learning.

• Leads the whole-school monitoring and evaluation of teaching and learning in computing by observing teaching and learning in computing regularly; planning whole school improvement; conducting work scrutiny to inform evaluation of progress; conducting pupil interviews.

• Takes responsibility for managing own professional development by participating in external training, independent private study, engaging in educational research and scholarly reading and keeping up-to-date with computing developments.

• Keeps parents informed about computing as appropriate.

• Ensures that the school's senior leaders and governors are kept informed about the quality of teaching and learning in computing.

• Works in close partnership with the school's senior leaders to ensure the learning needs of all pupils in computing are met effectively.

• Keeps the school's policy for computing under regular review.