Computing Rationale

Lister Infant Computing Rationale

"Respect for all, Learners for Life"

Our school motto is the motivation behind our school and what makes our school curriculum unique. It is our core belief that entwines and leads the curriculum at our school.

Vision

To create a safe, happy, caring and inclusive school where children, staff, parents and visitors feel valued, are encouraged to succeed, are treated with respect, love learning and actively work together to be the best they can be.

Intent

The Staff and Governors of Lister Infant School aim to offer a stimulating curriculum and environment that allows all pupils to fulfil their potential regardless of race, creed, gender or ability and to develop a sense of their own worth and respect for others. We aim to support our pupils in becoming independent, resilient, lifelong learners with a positive attitude to school and life.

When planning and teaching Computing at Lister Infants our aims are to fulfil the requirements of the National Curriculum for Computing and it is a subject that not only stands alone but is woven and should be an integral part of all learning. Computing, in general, is a significant part of everyone's daily life and children should be at the forefront of new technology, with a thirst for learning what is out there. Computing within school can therefore provide a wealth of learning opportunities and transferrable skills explicitly within the Computing lesson and across other curriculum subjects.

Through the study of Computing, children will be able to develop a wide range of fundamental skills, knowledge and understanding that will actually equip them for the rest of their life. Computers and technology are such a part of everyday life that our children would be at a disadvantage would they not be exposed to a thorough and robust Computing curriculum. Children must be taught in the art form of 'Computational Thinking' in order to provide them the essential knowledge that will enable them to participate effectively and safely in the digital world beyond our gates.

Key drivers:

- To provide an exciting and engaging Computing curriculum that is accessible to all pupils.
- To provide a culturally rich Computing curriculum, relevant to our children so they have breadth of experience.
- To ensure there is breadth, depth and progression in teaching and learning across the Computing curriculum, within and across year groups to increase pupil's knowledge, skills and understanding.
- To have high expectations of all our pupils by providing challenge.
- To be responsible, competent, confident and creative users of information and communication technology.
- To know how to keep themselves safe whilst using technology and on the internet and be able to minimise risk to themselves and others.
- To encourage our children to persevere and aspire to be their best.
- To equip our pupils with the capability to use technology throughout their lives.
- To expose our children to a multitude of enrichment through trips, visitors, enhancements, themed weeks and days to inspire our children and switch them on to learning and achieving.

Implementation

To ensure high standards of teaching and learning in computing, we implement a curriculum that is progressive throughout the whole school. Computing is a foundation subject in the National Curriculum and at Lister Infants implementation of the computing curriculum is in line with 2014 Primary National Curriculum requirements for KS1 and the Foundation Stage Curriculum. This provides a broad framework and outlines the knowledge and skills taught in each key stage.

Computing teaching at Lister delivers the requirements of the National Curriculum through termly units. Teachers use Purple Mash scheme of work as the core basis in the delivery of computing and our school coverage document highlights the knowledge, skills and vocabulary for each year group and is progressive from year to year. .

Our Computing covers the three strands that make up the computing curriculum.

- Computer Science - underlines the knowledge and skills relating to programming, coding, algorithms and computational thinking.
- Information Technology - underlines the knowledge and skills relating to communication, multimedia and data representation and handling.
- Digital Literacy - underlines the knowledge and skills relating to online safety and technology uses all of which are covered at Lister weather combined or discreetly.

Our children in Early Years provision will be exposed to the understanding of internet safety as they explore the world around them and how technology is an everyday part of their learning and understanding of the world.

Computing lessons are broken down into units and two units are taught per half-term. Pupils are building on established skills whilst also embedding previous concepts. Units are practical and engaging and allow computing lessons to be hands on. Units cover a broad range of computing components such as coding, spreadsheets, internet and email, databases, communication networks, touch typing, animation and online safety.

Teachers should ensure that ICT and computing capability is also achieved through core and foundation subjects. Where appropriate and necessary ICT and computing should be incorporated into work for all subjects using our wide range of interactive ICT resources.

Our Computing Progression Model is supplemented by the Purple Mash scheme of work ensuring consistency and progression throughout the school. All teachers are Purple Mash trained to ensure high quality teaching to our pupils. Through our Purple Mash subscription our teachers can deliver thematic, cross curricular lessons that also follow children's interests and provide flexibility. Purple Mash has an online portal of age-appropriate software, games and activities as well as topic materials and materials to support children's learning in other subject areas for all key stages. Through pupils computing lessons they will also use a range of Purple Mash software. Pupils at Lister Infants are fully encouraged to engage with ICT and technology outside of school. Each teacher and pupil at Lister has their own unique Purple Mash login and password. Computing work can be stored and saved using pupil log in details and accessed at home to embed their learning and deepen their knowledge, skills and understanding.

Computing teaching at Lister Infants is practical and engaging and a variety of teaching approaches and activities are provided based on teacher judgement and pupil ability. All classrooms have touch screen interactive boards to enhance learning. Key Stage 1 classrooms have computers and iPads to support learning across the curriculum. EYFS have computers, iPods and a range of technological provision to develop their knowledge and skills. We also have a wide range of resources to support our computing teaching including but not limited to, computers, iPads, iPods, a range of programmable equipment, cameras/video recorders, QR codes and green screen equipment. Pupils may use computers or iPads independently, in pairs, alongside a TA or in a group with the teacher. Teachers and pupils are also aware of the importance of health and safety and pupils are always supervised when using technology and accessing the internet.

At Lister Infants we provide a variety of opportunities for computing learning inside and outside the classroom. Computing and safeguarding go hand in hand and at Lister we

provide a huge focus on internet safety inside and outside of the classroom. Additional to all pupils studying an online safety unit through their computing lessons, every year we also take part in National Internet Safety Day in February. The Computing co-ordinator alongside class teachers will plan additional internet safety lessons and activities to take part in following a specific yearly theme. We also arrange for parent internet safety workshops. Furthermore, all teaching staff have received Online Safety training and will utilise online materials to encourage discussions and support issues as they arise in and out of the classroom and promote the materials to parents/carers. Finally, at Lister we actively encourage parent partnership within the computing curriculum and outside of school. Parents are made aware of online safety issues through school website links, school and class Twitter pages and newsletters. We also provide our families with a online safety advice and signpost key webpages.

Family Links
Parents have a considerable contribution to make to a child's success in school. They are strongly encouraged to be fully involved in their child's education. Parents are invited to review their children's school books (during open afternoons and parent evenings) and to support their child in responding to their teacher's feedback. Parent comments are added to share their view on progress, enjoyment and attainment. Parents at Lister Infants are also encouraged to support the implementation of ICT and computing where possible by encouraging use of ICT and computing skills at home during homework tasks through topics. We also encourage the home use of Purple Mash, Active Learn to support pupil's reading and our Maths Times Tables Rock Stars. We keep our families updated with links and events, communicated through the school newsletter, the school website and Twitter feed. This is also a way we can share lessons and activities with our families and celebrate the school successes.

Inclusion
Our school is an inclusive school and in each class there are children with a range of additional needs including ADHD, Dyslexia, Speech and Language, ASD and moderate learning difficulties. Our school recognises that children, with these different needs, benefit from an adapted lesson to allow all children to be successful and access activities at a level appropriate to their skills and needs. Resources are used to cater to the needs of individuals and support provided by staff as necessary. Any pupils with special educational needs are identified and teachers ensure lessons are catered to suit to every pupil's needs through adapting tasks, using resources and staff as necessary. We want all our pupils to apply what they know with increasing fluency and independence.

Impact

Our Computing Curriculum is high quality, well thought out and is planned to demonstrate progression and build on and embed current skills. We focus on progression of knowledge, understanding and skills in the different computational components and alike other subjects discreet vocabulary progression also form part of the units of work.

We expect all pupils to make progress which we see as knowing more and remembering more of the intended curriculum over time and we hold ambitious endpoints for our children. After the implementation of this robust computing curriculum, the majority of our pupils leave being digitally literate and able to join the rest of the world on its digital platform. They will be equipped, not only with the skills and knowledge to use technology effectively and for their own benefit, but more importantly – respectfully and safely. The biggest impact is they are ready for the digital world and that they are also aware of how to keep themselves safe online.

As children become more confident in their abilities in Computing, they will become more independent and key life skills such as problem-solving, logical thinking and self-evaluation become second nature.

Assessment is key to driving pupil learning forwards and to ensure we cater to every child's needs by identifying the next steps in their learning journey. Feedback contributes to every child achieving the progress and attainment they are capable of.

During the Foundation Stage and KS1 teachers complete ongoing informal assessment to support each child's learning and development and identify the next steps in their learning. Opportunities include teacher observation, questioning, child discussions and oral feedback against the learning objective and assessment criteria for the lesson. Teachers share these next steps with pupils to support children in moving their learning on.

Children are assessed by their class teacher at the end of each term and the data is logged onto the school system mid-year and end of year and used by the Computing Lead, Assessment Coordinator and Senior Management team who track pupil progress. Children not meeting the expected levels are targeted and will receive additional support through precision teaching or continuous provision support to strive towards meeting the expected levels.

The assessment milestones for each phase have been carefully mapped out and further broken down for each year group. This means that skills in Computing are progressive and build year on year. Our staff use Computing milestones when assessing the children at the end of each term and support those who are not working at the expected standard.

At the end of each year teachers complete summative assessments against EYFS and National Curriculum level descriptors. Teachers must make a judgement as to whether the child's learning and development is best described by:

- the description of the level of development expected at the end of the year (expected);
- not yet at the level of development expected at the end of the year (emerging);
- or beyond the level of development expected at the end of the year (exceeding).
 (See assessment policy for further details)

The school implements a termly programme of prioritised monitoring, review and evaluation which includes:
- Book scrutiny (were appropriate)
- Lesson Observations were appropriate
- Pupil Voice
- Learning walks

The coordinator feeds back to the Senior Leadership Team each term by completing a termly report monitoring data for all children including specific groups. As a result of analysing data, actions are shared with staff and monitored by the co-ordinator. Additionally a learning walk takes place where lessons, books and pupil voice are triangulated to ensure high quality learning is happening.

At the end of each year, a subject action plan is devised, monitored throughout the year and reviewed at the end of the following year.

We ensure all staff receive regular CPD in order to provide the highest quality of education to our pupils. Staff who have attended CPD training feedback to other members of staff at staff meetings to ensure good practice is implemented by all. We also invite experts into school to lead whole staff training and the subject lead attends meetings throughout the year with the Local Authority.