

Larkrise Primary School



Computing Policy

Autumn 2024

Achieve Excellence**Statement of Intent**

We aim to enable children to have the experience of a broad range of computing skills in order to be equal in opportunity within all sectors for their futures. All children will be prepared for and aware of the risks of using the internet and social media. They will know how to keep themselves safe online.

Introduction

- The 2014 national curriculum introduced a new subject, computing, which replaces ICT. The use of information and communication technology is an integral part of the national curriculum and is a key skill for everyday life. Computers, tablets, programmable robots, digital and video cameras are a few of the tools that can be used to acquire, organise, store, manipulate, interpret, communicate and present information. It gives schools the chance to review and enhance current approaches in order to provide an even more exciting and rigorous curriculum that addresses the challenges and opportunities offered by the technologically rich world in which we live.
- Computing is concerned with how computers and computer systems work, and how they are designed and programmed. Pupils studying computing will gain an understanding of computational systems of all kinds, whether or not they include computers. Computational thinking provides insights into many areas of the curriculum, and influences work at the cutting edge of a wide range of disciplines.

Intent

We believe that an engaging and motivating Computing curriculum will enable our learners to:

- Use computational thinking and creativity to understand and change the world.
- Make deep links with mathematics, science and design and technology.
- Build knowledge of principles of information and computation, how digital systems work, and how to put this knowledge to use through programming.
- Become digitally literate – able to use, express themselves and develop ideas through information and communication technology.

Implementation

- The Computing Subject Leader and leadership team support staff to deliver a high-quality computing education.
- Computational thinking – the ability to solve problems in a creative, logical and collaborative way – is developed through repeated programming opportunities and opportunities to build understanding and apply the concepts of computer science.

- Pupils become responsible, competent, confident and creative users of information and communication technology.
- Pupils have a growing awareness of how technology is used in the world around them and of the benefits that it provides. They are supported to evaluate and use information technology, including new or unfamiliar technologies.
- Opportunities for communication and collaboration develop understanding of the purposes for using technology and these are used to bring together home and school learning experiences.
- Technology is used imaginatively to engage all learners and widen their learning opportunities,
- Pupils have access to a variety of devices and resources and are encouraged to reflect on the choices they make to use them.
- To develop the understanding of how to use ICT equipment safely and responsibly.

The national curriculum for computing aims to ensure that all pupils:

- Can understand and apply the fundamental principles of computer science, including logic, algorithms, data representation, and communication
- Can analyse problems in computational terms, and have repeated practical experience of writing computer programs in order to solve such problems
- Can evaluate and apply information technology, including new or unfamiliar technologies, analytically to solve problems.
- Are responsible, competent, confident and creative users of information and communication technology.

The Role of the Subject Co-ordinator

- Implement and monitor an appropriate Computing curriculum
- Encourage the use of technology to raise achievement across the curriculum
- Support staff to develop their skills and knowledge in the use of technology for teaching and learning
- Ensuring all teaching staff have and are following the National Curriculum 2014 aims, objectives and programmes of study.
- To support all staff on assessing Computing and monitor progress.

Curriculum Planning

- Planning for Computing is implemented using the core document: The National Curriculum Programme of Study for Computing.
- Planning of Computing is mainly focused around the use of Purple Mash with other elements included as required.
- Medium term planning takes account of differentiation and progression and is based on Purple Mash units for learning.
- Key skills in information technology are developed through Multimedia and Handling Data threads and are integrated into learning in other curriculum areas.
- E-Safety is developed through PSHE and discretely through units on Purple Mash.

Key Stage 1

By the end of key stage 1 pupils should be taught to:

- Understand what algorithms are, how they are implemented as programs on digital devices, and that programs execute by following a sequence of instructions
- Write and test simple programs
- Use logical reasoning to predict and computing the behaviour of simple programs
- Organise, store, manipulate and retrieve data in a range of digital formats
- Communicate safely and respectfully online, keeping personal information private, and recognise common uses of information technology beyond school.

Key Stage 2

By the end of key stage 2 pupils should be taught to:

- Design and write programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts
- Use sequence, selection, and repetition in programs; work with variables and various forms of input and output; generate appropriate inputs and predicted outputs to test programs
- Use logical reasoning to explain how a simple algorithm works and to detect and correct errors in algorithms and programs
- Understand computer networks including the internet; how they can provide multiple services, such as the world-wide web; and the opportunities they offer for communication and collaboration
- Describe how internet search engines find and store data; use search engines effectively; be discerning in evaluating digital content; respect individuals and intellectual property; use technology responsibly, securely and safely
- Select, use and combine a variety of software (including internet services) on a range of digital devices to accomplish given goals, including collecting, analysing, evaluating and presenting data and information.

Computing in EYFS

- Pupils build confidence to use technology purposefully to support their learning for all Early Learning Goals as appropriate.
- Pupils in Foundation Stage class will have experiences using technology indoors, outdoors and through role play in both child-initiated and teacher-directed time.

The Contribution of Computing to Teaching in Other Curriculum Areas

Computing can contribute to all areas of the curriculum, as a research tool using secondary resources. Additionally, it serves well in terms of providing a range of presentational devices from word documents, blogs and through to PowerPoint presentations. Simulation programmes provide opportunities for children to gain some knowledge and experience in carrying out tests (e.g. testing properties of materials in science) or finding out how things work (e.g. the water cycle).

There are a range of visual resources from simple visual references through to educational video links to support most if not all areas of the curriculum.

In **Music** and **Spanish**, Larkrise uses the online resources, Language Angels and Charanga respectively, to deliver the curriculum requirements. Both programmes used are fully interactive and user friendly. ICT equipment is regularly used to enhance the curriculum.

Science

Pupils should be taught to 'work scientifically', developing a variety of approaches to answer relevant scientific questions. These types of enquiry should include:

- Observing over time
- Pattern seeking
- Identifying, classifying and grouping
- Comparative and fair testing (controlled investigations)
- Researching using secondary resources

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

Pupils share their knowledge by creating a program or using presentational software, apps or blogs.

Design and Technology

Use creativity and imagination to design and make products that solve real and relevant problems.

- Develop the creative, technical and practical expertise needed to perform everyday tasks confidently and to participate successfully in an increasingly technological world.
- Build and apply a repertoire of knowledge, understanding and skills in order to design and make high-quality prototypes and products for a wide range of users.
- Critique, evaluate and test their ideas and products and the work of others.

Pupils learn how to take risks, becoming resourceful, innovative, enterprising and capable citizens. This contributes to the development of the attitudes and skills which are part of computational thinking.

Equal opportunities

At Larkrise we plan to provide for all pupils to achieve, including boys and girls, higher achieving pupils, gifted and talented pupils, those with SEN, pupils with disabilities, pupils from all social and cultural backgrounds, children who are in care and those subject to safeguarding, pupils from different ethnic groups and those from diverse linguistic backgrounds.

- The school maintains its policy of equal opportunities as appropriate for Computing.
- Computers and related technology are made available to all pupils regardless of gender, race or abilities.
- The class teacher differentiates work by task, resource or support, to ensure the individual needs of more able and SEN pupils are met.
- The school is aware that not all pupils have the same access to computers at home and this is considered by staff in the planning and delivery of the curriculum.

Assessment, Impact, Recording and Reporting

- Progress is assessed on an on-going basis against the curriculum goals.
- Formative assessment is used by the class teacher and teaching assistant during whole class or group teaching. Children's confidence and difficulties are observed and used to inform future planning.
- Open questions are used to challenge children's thinking and learning.

- Children are encouraged to evaluate their own and others' work in a positive and supportive environment, including peer assessment.
- Teacher's judgments are supported through an electronic portfolio of evidence which provides examples of age-expected attainment on target tracker.
- Information is shared with the school community through the school website, display, celebration events, newsletters, and end of year reports.

Resources

The school acknowledges the need to continually maintain, update and develop its resources and to make progress towards a consistent, compatible pc system by investing in resources that will effectively deliver the strands of the national curriculum and support the use of ICT and computing across the school. Teachers are required to inform the ICT and computing leader of any faults as soon as they are noticed (On Friday we have our technician in to deal with any issues). There is currently a support Computing technician in place to help support the coordinator to fulfil this role both in hardware & audio visual (Lasertech). ICT and computing network infrastructure and equipment has been sited so that:

- Every classroom from EYFS to Y6 has at least 1 laptop connected to the school network and most have an interactive whiteboard with sound and internet facilities.
- There are 2 laptop trolleys and Ipad trolleys in school, which are readily available for classroom use.
- From EYFS- Year 6, each class has an allocated slot across the week for teaching of specific ICT and computing skills
- The laptops are available for use throughout the day so can they can be used in any lesson. A booking system is in place for this.
- The school has an ICT and computing technician who is in school one half day a week.
- A governor will be invited to take a particular interest in ICT and computing in the school.

Monitoring and Evaluating

- The impact of the Computing curriculum is monitored regularly by the Computing subject leader through pupil discussion, samples of work and discussion with teachers and an electronic portfolio.
- Systematic monitoring of all threads of Computing informs the subject leader and school development plan.
- The Computing leader conducts regular audits of the training needs of teachers and teaching assistants to improve their subject knowledge and confidence. Requests for training in Computing can be part of individual teacher's performance management plan.

Links with the Local and Wider Community

Links with the local and wider community are maintained through the regular update of the school's website. Here, past, present and upcoming events are shared and families are kept informed of all relevant information relating to the school calendar. Additionally, links to relevant websites are made available to enable parents and carers to support their child's learning.

Governors

The link Governor for Curriculum will monitor the role of the subject leader annually. Updated subject leader annual report in Computing will be accessible to all governors in order to ensure the governors are updated in general in the development of Computing in our school.

Health and Safety

The school is aware of the health and safety issues involved in children's use of ICT and computing. All electrical appliances in school are tested accordingly. It is advised that staff should not bring their own electrical equipment in to school, but if this is necessary, then the equipment must be pat tested before being used in school. This also applies to any equipment brought in to school by, for example, people running workshops, activities, etc. and it is the responsibility of the member of staff organising the workshop, etc. to advise those people.

- All staff should visually check electrical equipment before they use it and take any damaged equipment out of use. Damaged equipment should then be reported to the ICT technician, Computing lead or head teacher who will arrange for repair or disposal.
- Pupils must not be allowed to plug in equipment.
- They may be allowed to switch on, and to set up the computer or printer as appropriate to their age group. This generally applies to KS2 pupils.
- Computer and audio visual aids equipment must be checked for any signs of wear, and switched off immediately if noticed. A report should be made to person in charge of ICT or audio visual aids, as appropriate. (A regular safety check is made by co-ordinators and on outside contract.)
- Leads are tied in place by the co-ordinator, but individual teachers should either deal with any that come loose, or report to the co-ordinator in charge. Leads should not be allowed to trail.
- Wherever possible, computers are set up for right or left hand use
- Monitors must be at an appropriate height. Teachers should ensure that appropriate height chairs are used, so that the screen is easily seen. It is preferable for children to look down on a screen, and for this to be placed out of direct sunlight.
- Children should not be sitting at a computer screen for in excess of an hour, without a break.
- Areas in which computers are used should have sufficient ventilation.

Online Safety

- A progressive online safety curriculum ensures that all pupils are able to develop skills to keep them safe online.
- Opportunities for learning about online safety are part of PSHE and reinforced whenever technology is used.
- Clear rules for online safety are agreed by each class at the beginning of every year. Parents and pupils sign an acceptable user policy together when a pupil first starts at the school. The class rules are then signed annually by pupils and shared with parents.
- The school supports the international Safer Internet Day each February and provides opportunities for pupils to consider cyberbullying as part of Anti-Bullying week in the autumn term.
- Opportunities are taken whenever possible to reinforce messages of a healthy life style.
- The school has an online safety policy in place that details how the principles of online safety will be promoted and monitored.

Security

- The ICT and computing technician will be responsible for regularly updating anti-virus software.
- Use of ICT and computing will be in line with the school's 'acceptable use policy'. All staff, volunteers and children must sign a copy of the schools AUP.
- Parents will be made aware of the 'acceptable use policy'.
- All pupils and parents will be aware of the school rules for responsible use of ICT and computing and the internet and will understand the consequence of any misuse.
- Every teacher has a signed agreement assigning a laptop to them which is counter signed by the Headteacher and kept in the school office.
- The agreed rules for safe and responsible use of ICT and computing and the internet will be displayed in each Key Stage area.

Reviewed and amended by Jade Scuffil – December 2024

Next Policy Review Date: September 2026