

# Lady Katherine Leveson CE Primary School

## Computing Policy

**Issued: February 2021**

**Next review due: February 2024**



## Policy for Computing

### **School Vision and Rationale**

#### **Our mission is:**

Celebrating together the richness and diversity of life throughout the world; global citizens within our community and beyond.

#### **Our values:**

- Joy
- Stewardship
- Community
- Compassion
- Friendship
- Reconciliation
- Respect

#### **Our aims are to develop:**

- Confident learners
- Joyful learners
- Global learners

#### **Purpose:**

The purpose of this policy is to ensure that all staff working within our school, as well as the wider school community, have a clear and consistent understanding of why and how Computing is taught. This policy outlines the guiding principles by which this school will implement Computing in the National Curriculum (2014) in England.

#### **Rationale:**

At Lady Katherine Leveson Primary School, we recognise the importance of Computing and its importance in an ever- changing technological world. We want all pupils to develop a love for computing and strive to reach their full potential with the vast array of technology available to them. We strive to develop technological curiosity and provided pupils with fun, inspiring computing links within our curriculum. Memorable experiences through visitors and visitors aim to provide pupils with opportunities to learn important life skills such as E-Safety. Throughout the computing curriculum, pupils are challenged to develop as an individual, to overcome problems, discover new skills and strive to be empowered by technology.

#### **Intent**

At Lady K, our aim is to develop 'confident learners' who have confidence in and excitement about technology. We want all pupils to be able to gain a broad subject knowledge and develop a wide range of skills which will stand as a firm foundation for future learning and

their experiences in adult life and the world of work. As ‘joyful learners’, children are actively encouraged to investigate problems and ‘tinker’ with technology. Through this, we hope to develop curiosity and creativity in the subject.

To achieve this, throughout their time in school pupils will access a growing range of devices and software. In our Early Years setting, pupils have opportunities to access various forms of technology, mostly through exploring and play. This helps them to achieve the Early Learning Goal for Technology.

As the children move into Key Stage 1, they access technology in a more formal setting and are introduced to more structured uses for software. This continues into lower and then upper Key Stage 2, where pupils’ knowledge is broadened and their skills refined so that they are able to carry out more complex procedures and use technology affectively to suit very particular requirements.

As ‘global learners’ through thorough planning across each year group, as pupils move through school and their learning journey, they will build upon skills and knowledge that will equip them to best deal with the digital world they live in. We firmly believe that all children are able to achieve their very best. We aim to inspire and excite, whilst ensuring children enjoy what they do – this will encourage engagement in the learning process, something that will stay with them as they grow.

### **Key Principles:**

At Lady K we believe:

- That computing is integral to school life.
- That e-safety is at the core of all computing teaching.
- That computing is able to cater for all children’s individual needs and is used to support a range of learning styles.
- That pupils are empowered to take control of their own computing learning and are able to extend their learning beyond the classroom through increased access to resources.
- That pupils’ learning of the whole curriculum is enhanced through the use of a range of technologies.
- That pupils are prepared for the future and the new technology it holds.
- That staff are supported through CPD as they are paramount to success.

We can achieve this vision by:

- Providing an exciting, rich, relevant and challenging computing curriculum for all pupils.
- Helping children to develop a range of computing skills which will enable them to make effective use of resources for themselves.
- Encouraging all pupils to have the confidence to experiment with new software and apply their developing skills in new contexts.
- Developing an understanding of when computing can give quicker or better results than other methods and also of when it might be inappropriate to use computing.
- Helping children to gain a sense of achievement by developing the patience and

persistence to realise their ideas and recognise the possibilities of going wrong without the feeling of a sense of failure.

Our aims for computing education are to ensure that all pupils:

- Can understand and apply the fundamental principles and concepts of computer science, including abstraction, logic, algorithms and data representation
- 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, respectful and competent users of data, information and communication technology.

Computing education is important because:

- It equips pupils to use computational thinking and creativity to understand and change the world.
- It equips pupils with skills, strategies and knowledge that will enable them to reap the benefits of the online world, whilst being able to minimise risk to themselves or others.
- It has deep links with mathematics, science, and design and technology.
- It provides insights into both natural and artificial systems.
- It equips pupils to create programs, systems and a range of content.
- It ensures that pupils become digitally literate at a suitable level for the future workplace and as active participants in a digital world.
- It prepares pupils to participate in a rapidly changing world in which work and leisure are increasingly transformed by access to new technologies.
- It enables children to employ computing to access ideas and experiences from a wide range of people, communities and cultures.
- It increases capability promotes initiative and independent learning and the ability to be selective about its use.

### **How Computing is Structured through the School:**

By its very nature the computing curriculum is liable to change frequently. The plan for developing the curriculum and managing changes is outlined in the school's Computing Action Plan which is updated at least once a year by the Computing Subject Leader. It includes proposals for future development of the curriculum, use of resources, staff training needs and long-term replacement of hardware. Not all the required changes can be made in the short term because of the cost and training time involved.

The delivery of the computing curriculum at Early Years Foundation Stage and Key Stages 1 and 2 will be taught primarily through the platform Purple Mash, using core units from the Purple Mash Computing Scheme of Work. This has been supplemented in each year group 1-6 by a unit of work that focuses on the use of Microsoft Apps such as Word, Excel and PowerPoint. This ensures we are teaching children to use 'real world' software in addition to that within the Purple Mash platform. It also promotes their digital literacy learning.

As a school, we have chosen the Purple Mash Computing Scheme of Work. The scheme of work supports our teachers in delivering fun and engaging lessons which help to raise

standards and allow all pupils to achieve to their full potential. We are confident that the scheme of work more than adequately meets the national vision for Computing. Furthermore, it gives excellent supporting material for less confident teachers. It also supports Home and Remote Learning.

The implementation of the statements will ensure a continuity and progression of skills, knowledge and understanding across the school by implementing computing skills in meaningful and cross curricular ways.

### **Foundation Stage**

Nursery and Reception pupils are taught through the EYFS curriculum using 'Development Matters' goals and is assessed using the Early Learning Goals where clear outcomes are found in the section related to Understanding the World (UTW). The work is ongoing throughout the year and is differentiated according to ability.

### **Key Stage 1 outcomes:**

- 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.
- 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 outcomes:**

- Design and write programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts.
- 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.
- 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.
- 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.
- 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 worldwide web; and the opportunities they offer for communication and collaboration.

### **Curriculum Links**

Information Communication Technology has many cross curricular opportunities which teachers are encouraged to make the most of.

Computing must be presented in practical contexts which will be relevant to the children's experiences. In computing, pupils must have "hands on" experience.

In Key Stages 1 and 2, computing will be used to support and extend learning throughout the creative curriculum. It will also be used to present and showcase work across the curriculum.

### **Assessment for Learning**

Staff are provided with the curriculum framework from the Purple Mash Whole school curriculum, which ensures that children across all key stages are provided with opportunities to achieve end of key stage expectations. This framework includes a clear progression of skills which ensures that children are making progress. Staff can therefore use the progression documents to ensure that any gaps in pupils learning are targeted and filled.

### **Recorded Work**

Scientific work is recorded in a variety of ways appropriate to the age of the children and their individual needs in each key stage. This can include teacher observations, photographs, print outs, saved files and saved '2dos'.

### **Equal Opportunities**

Consideration is always given in respect of cultural differences and experiences and to children whom English is an additional language. All children with Special Educational Needs are provided with challenging experiences in a flexible manner suited to their individual requirements

We place particular emphasis on the flexibility technology brings to allowing pupils to access learning opportunities, particularly pupils with SEND. With this in mind, we will ensure additional access to technology is provided throughout the school day and in some cases beyond the school day.

### **Staff Development**

At Lady K it is vital that all teachers are confident and competent in the use of computing:

- Scheduled pupil voice sessions and learning walks steer changes and inform training needs.
- We want to provide professional growth by identifying and taking into account individual staff's needs and aspirations and the school's needs.
- Staff are encouraged to improve their own performance and that of others and are encouraged to learn and develop effectively.
- Training for staff and governors is relevant to their needs and ultimately positively impacts on the pupils.
- We are committed to ensuring equality of opportunity and inclusion in the development of all staff.
- Staff understand the impact that the development of people has on the performance of our school, on our teams and on individuals.
- The Senior Leadership Team is supportive of the development of all our staff.

### **Monitoring**

The Subject leader monitors the delivery of computing teaching and the quality of learning across the school. This is done through observations and drop in sessions. The subject leader also scrutinises children's work, talks to children, and reviews the learning environment and medium, weekly and daily planning.

## **Review and Evaluation**

The computing subject leader has the opportunity to take part in the annual whole school evaluation. From this exercise annual priorities for the subject as well as the school are identified and prioritised.

Subject Leader: Miranda Gaywood

## **Resources**

### **Hardware**

A range of resources are available, which successfully supports delivering the computing curriculum and enables all learners to reach their full potential.

All classes have one desk top computer in their room which is connected to the school network and gives access to school resources, software and the Internet. Each class has an Interactive Whiteboard.

Our mobile computing equipment contains 15 laptops. In addition, there are 20 Chrome books and there are also 15 iPads to support learning alongside class iPads.

All hardware appliances are audited each year and updated as hardware is changed or added. We have a commitment to renew equipment regularly to reflect current and developing technologies. Resources are suitably maintained and replenished when needed, which is overseen by the Computing Leader, Solihull EICTS and then BDMAT IT team.

Each teaching member of staff is provided with a school laptop which is registered in line with DfES regulations. Every staff laptop is encrypted for added security.

Their use is monitored in the same way as the school computers are.

- Everyone must log on to the school network using their secure log on.
- All machines should be locked when the user is away from the machine
- Only machines accessing through the cache pilot are allowed (no personal machines or handheld devices).

For insurance purposes, all computing equipment needs to be locked away at the end of the day. Teachers are each responsible for the computers in their room and share responsibility for the computing suite. Each teacher is asked to sign an Acceptable Internet Use Statement. Staff have training in Data Protection and Information Security. In the trolleys, the laptops and iPads must always be placed correctly in the slots so they can be easily accounted for and for charging purposes. The trolley must be locked at the end of each session.

### **Cameras and Video Cameras**

Cameras are available in school and are shared between staff. Staff also have use of iPads which can be used to record images and video. Once staff have finished with images, they are actively encouraged to remove images and copy them onto the school system.

School cameras and tablets are for school use only and should not be taken home. Staff members should not use personal equipment (cameras or mobile phones) to take photographs or other images of pupils.

- All images taken using the school cameras or tablets should be uploaded onto the network and if required for records or classwork, printed out at school. Staff should not keep images of pupils on their memory sticks.

Consent for using images of pupils for use on the school's newsletters, website or for media purposes is obtained from parents upon enrolment to school.

### **Mobile Phones**

The use of mobile phones and other digital devices by pupils in school is not permitted.

The use of mobile phones by staff is only permitted when pupils are not present or in the staff room.

There is a school mobile phone which can be booked out of the school office for staff to take if they go offsite with pupils, for example on a trip, or up to the field. This is for contact purposes only, and no photographs are to be taken with the device.

### **Interactive Whiteboards**

Each class within school has an Interactive Whiteboard and teachers are encouraged to ensure they are being used to their full potential. Where appropriate, lessons make use of digital resources and are interactive as to ensure that the children are fully stimulated and enthused.

### **Software**

A wide-range of software is available on the network to suit the varied curriculum that we cover. There is a suitable selection of software available to facilitate the teaching of computing and create cross- curricular links. Much of the software needed is contained within the Purple Mash platform.

Software is stored in the computing cupboard along with the manuals to enable access to all. An audit of all software and licences is kept. This audit is updated regularly.

Computing resources are valuable and sensitive to the environment in which they are stored. Care should be taken when moving them around school.

### **Health and Safety**

As in all subjects, health and safety aspects need to be considered, planned for and risks removed where possible. In computing all users need to be made aware that to reduce risks of injury we need to:

- Use of correct seating whenever computing is used.



- Ensure that there are adequate ventilation / air changes.
- Monitors should be checked for height and angle of view and moved if necessary (placing them back before leaving the equipment).
- Ensure cabling is made secure and kept out of sight wherever possible.

## **The Internet**

The purpose of Internet access in school is to raise educational standards, to support the professional work of staff and to enhance the school's management information and business administration systems.

The statutory curriculum expects pupils to learn how to locate, retrieve and exchange information using computing. In order to deliver the curriculum, teachers need to plan for and make use of communications technology.

Access to life-long learning and employment increasingly requires computer and communications use and pupils need to develop life skills in their use.

Home and social Internet use is expanding and it is now an important part of learning and communication during leisure time. It brings pupils into contact with a wider range of information, the scope and nature of which may or may not be appropriate for the pupil. Whilst we cannot be responsible for internet use outside of school, at Lady Katherine Leveson Primary we feel it is important to work with children and parents to ensure that all are informed in how to stay safe and use the internet responsibly.

### **How are the risks assessed?**

At Lady Katherine Leveson Primary school, we understand that in common with other media such as magazines, books and video, some material available via the Internet is unsuitable for pupils. It is difficult to completely remove the risk that pupils might access unsuitable materials via the school system but we have a number of systems in place to limit these risks.

- The use of computer systems without permission or for purposes not agreed by the school could constitute a criminal offence under the Computer Misuse Act 1990;
- Methods to identify, assess and minimise risks are constantly reviewed by the school, in partnership with the Local Authority.
- Staff, parents, governors and advisers work to establish agreement that every reasonable measure is being taken;
- Children are regularly given e-safety training at least at the start of every term so that they are aware of how to keep themselves safe, minimise exposure to unsuitable material and how to report anything that they feel is unsuitable.

### **How does school ensure Internet access is safe?**

Our school connections are supplied by Virgin Media Business (VMB), through the West Midlands Public Sector Network (WMSPN) so at Lady Katherine Leveson Primary school we are therefore protected by the Solihull LA content filtering system which is maintained by Solihull EICTS.

There are mechanisms and procedures in place to delete unsuitable websites through global and local blocking strategies and filtering:

- Offensive and illegal material is filtered at a national level.
- Inappropriate sites are then filtered at local level.
- Teachers can bring sites of educational value through the cache pilot by requesting through the SOLGRID ICT support log form, stating their reasons for unblocking the site.

In school, children are taught how to use the internet to search for information. They are taught the skills necessary to do this and also about its appropriateness and safety implications.

- Pupils and teachers are informed that Internet use is supervised and monitored;
- The school works in partnership with parents, the LA, DfE and the Internet Service Provider to ensure systems to protect pupils are reviewed and improved;
- If staff or pupils discover unsuitable sites, the URL (address) and content are reported to the Internet Service Provider via the Computing Subject leader or Headteacher
- Any material that the school suspects is illegal will be referred to the Internet Watch Foundation; □
- Pupils are made aware that the writer of an e-mail or the author of a Web page might not be the person claimed;
- Pupils are encouraged to tell a teacher immediately if they encounter any material that makes them feel uncomfortable.
- Annually the school celebrate 'Safer Internet Day'.

However, computing teaching should be widened to incorporate Internet content issues:

- The value and credibility of Web materials in relationship to other media. The tendency to use the Web when better information may be obtained from books may need to be challenged.
- Pupils are taught ways to validate information before accepting that it is necessarily accurate;
- Pupils are taught to acknowledge the source of information, when using Internet material for their own use;
- Pupils are taught at an age appropriate level about the dangers that the internet exposes and are taught how to keep themselves safe.

### **How is security of school computing systems maintained?**

The Internet is a connection to the outside world that could compromise system performance or threaten security.

- Security strategies are discussed and reviewed with the LA on a regular basis;
- The security of the whole system is reviewed with regard to threats to security from Internet access;
- Virus protection is installed and updated regularly;
- Staff and Pupils scan any data storage devices before connecting them to the school network.

### **How is Internet access authorised?**

All staff and pupils sign an agreement of responsible internet use when they join Lady Katherine Leveson Primary School. They are then reminded of this each year with the invitation to discuss any concerns that may arise from it.

Everyone has a personal log on for which they are responsible. Log ons are monitored by staff and the Local Authority. Additional Log ons are requested through the Computing Subject Leader or Office Manager, and are created by Solihull EICTS.

- Internet access is a necessary part of the curriculum. It is an entitlement for pupils based on responsible use;
- Parents are informed that pupils are provided with supervised Internet access
- Parents, pupils and staff are asked to sign a responsible use agreement form.
- Children are now asked to review this responsible use form each year & sign it again as part of their class.

### **How are complaints regarding Internet use handled?**

Prompt action is required if a complaint is made. The facts of the case need to be established, for instance whether the issue has arisen through Internet use inside or outside school. Transgressions of the rules could include minor as well as the potentially serious and a range of sanctions will be required, linked to the school's behaviour policy.

- Responsibility for handling incidents are given to senior members of staff;
- Parents and pupils will need to work in partnership with staff to resolve issues;
- As with drugs issues, there may be occasions when the police must be contacted. Early contact will be made to establish the legal position and discuss strategies;
- A pupil may have e-mail, Internet or computer access denied for a period of time depending on the nature of the incident;

### **How is parents' support enlisted?**

Internet use in pupils' homes is increasing rapidly. Unless parents are aware of the dangers, pupils may have unrestricted access to the Internet. The school may be able to help parents plan appropriate, supervised use of the Internet at home.

- A careful balance between informing and alarming parents is maintained;
- As and when needed, demonstrations and practical IT sessions for parents are organised to encourage a partnership approach;
- Joint home / school guidelines on issues such as safe Internet use will be established and literature from trusted child safety partners will be passed to parents.

### **E-mail**

E-mail is now an essential means of communication within education and in the wider world.

- Pupils need to use e-mail as part of the National Curriculum 2014 Curriculum.
- Pupils in KS1 and KS2 are exposed to the principal on emails through the Purple Mash Curriculum. Where through their time at Lady K they are exposed to emailing several times in units of work they complete.
- All children are aware that e-mails sent through the school system are filtered.

- Children are made aware that in-coming e-mail is regarded as public. Received e-mail may be examined and could, for example, be pinned to a notice board for collection by pupils;
- Pupils in KS2 are allowed to access personal e-mail from the school system; and are taught to use it responsibly.

The official school email service may be regarded as safe and secure and is monitored. Users should be aware that email communications are monitored. Staff and students / pupils should therefore use only the school email service to communicate with others when in school, or on school systems (e.g. by remote access).

- Users must immediately report, to the nominated person – in accordance with the school policy, the receipt of any communication that makes them feel uncomfortable, is offensive, discriminatory, threatening or bullying in nature and must not respond to any such communication.
- Any digital communication between staff and students / pupils or parents / carers (email, chat, VLE etc) must be professional in tone and content. These communications may only take place on official (monitored) school systems. Personal email addresses, text messaging or social media must not be used for these communications.
- Whole class / group email addresses may be used at KS1, while students / pupils at KS2 and above will be provided with individual school email addresses for educational use

### **Profiles**

Online profiles need to be discussed with children as part of their e-safety training. Children are made aware of the dangers in releasing personal information and are taught to assess risk. Children are made aware that once something is posted on the internet it is very difficult to remove and they are taught to keep their information safe. Children may create online profiles and avatars in secure places e.g. school blogs.

### **Publishing**

At Lady K we recognise the exciting opportunities that publishing online presents.

By publishing work online, children are given a fantastic opportunity to gain a world-wide audience for their work. We want to encourage this but to also encourage responsible use.

- Copyright is always respected.
- Author's own work is always recognised.
- Approval is always sought from an adult before uploading to the web.
- Public chat rooms are not allowed in school; however, children may use managed notice boards and discussion groups.
- Children's images should only be shared after seeking permission from an adult and should be checked against parental permissions list.

### **Video Conferencing**

This is becoming a widely recognised and used educational tool. It allows more personal communication and collaboration but must always be used responsibly and safety.

- Conferencing and webcams may only be used when a member of the teaching staff is present and has given their permission.
- A safe portal must be used.
- When not in use the webcam or recording equipment must have lens cap closed or be disconnected.
- Only children with permission to share their image should be included in a webcam broadcast.

### **School Website**

At Lady Katherine Leveson Primary School we have a fantastic website and social media feed that inspires pupils to publish work to a high standard, for a very wide audience. Our web site celebrates pupils' work, promotes the school, informs parents of up and coming events, enables them to read school policies and can be used to publish resources for projects or homework. It is also used to communicate with parents current and prospective.

As the school's website can be accessed by anyone on the Internet, the security of staff and pupils are considered carefully.

- Home information or individual e-mail identities are not published;
- Only pupils who have permission to use their images are to have photographs published to the website.
- Full names will not be used anywhere on the Web site.
- Children's names will not be placed next to visual media.
- All publishing rules apply (copyright, authors recognition, teacher's permission needed before publishing).