



# Kenmore Park Infant & Nursery School



# Computing Curriculum POLICY

September 2023

## Computing Curriculum Policy

### Joint Intent Statement

***At Kenmore Park School it is our intent to promote a safe, yet stimulating and challenging computing culture where all individuals are valued, respected, nurtured, enthused and appropriately prepared for the ever changing world.***

***We want children to become confident, independent users of computing technologies. We want the use of technology to support learning across the entire curriculum and to ensure that our curriculum is accessible to every child.***

#### **1 Aims and objectives**

- 1.2 Computing is changing the lives of everyone. Through teaching computing, we equip children to participate in a rapidly changing world where work and leisure activities are increasingly transformed by technology. We enable them to find, explore, analyse, exchange and present information. We also focus on developing the skills necessary for children to be able to use information in a discriminating and effective way. Computing skills are a major factor in enabling children to be confident, creative and independent learners.
- 1.2 The aims of computing are to enable children: **(Article 17: A right to get information)**
- to enrich and extend learning throughout the curriculum, using the technology safely and responsibly to support collaborative working, independent study and editing initial ideas;
  - to develop computing capability in finding, selecting and using information whilst also ensuring pupils know what to do to keep themselves safe on line and an awareness of appropriate reporting mechanisms as part of e-safety;
  - to use computing for effective and appropriate communication;
  - to monitor and control events both real and imaginary;
  - to apply hardware and software to creative and appropriate uses of information;
  - to apply their computing skills and knowledge to their learning in other areas;
  - to use their computing skills to develop their language and communication skills;
  - to explore their attitudes towards computing and its value to them and society in general. For example, to learn about issues of security, confidentiality and accuracy.
  - to have an appreciation of, and so evaluate computing's potential and its limitations;
  - to aid the most vulnerable pupils including those with special educational needs or physical handicaps, through the use of technology, to increase their accessibility, independence and learning, whilst also monitoring their online behaviour carefully.

## 2 Teaching and learning style

- 2.1 As the aims of computing are to equip children with the skills necessary to use technology to become independent learners, the teaching styles that we adopt are as active and practical as possible. While at first we do give children direct instruction on how to use hardware or software, emphasis of our teaching in computing is for individuals or groups of children to use computers to help them in whatever they are trying to study. So, for example, children might research a history topic by using agreed software, or they might investigate a particular issue on the Internet. Children learning science might use the computer or ipad to draw a graph, analyse data or research. We encourage the children to explore ways in which the use of computing can improve their results, for example, how a piece of writing can be edited or how the presentation of a piece of work can be improved by moving text about etc.
- 2.2 We recognise that all classes have children with widely differing computing abilities. This is especially true when some children have access to computing equipment at home, while others do not. We provide suitable learning opportunities for all children by matching the challenge of the task to the ability and experience of the child. We achieve this in a variety of ways, e.g.:
- setting common tasks which are open-ended and can have a variety of responses; **(Article 12 – A right to give an opinion)**
  - setting tasks of increasing difficulty (not all children complete all tasks), however they have the opportunity to do so;
  - providing resources of different complexity that are matched to the ability of the child;
  - using classroom assistants when available to support the work of individual children or groups of children.

## 3 computing curriculum planning

- 3.1 The school has adopted a sequenced for progression and cross-curricular approach to meet the requirements of the new computing curriculum as the basis for its planning.
- 3.2 We carry out the curriculum planning in computing by including learning objectives in six main areas of study (*computational thinking, programming, coding, using software applications, technical understanding, online communication and social awareness*) to be achieved each half term. The computing curriculum leader works this out in conjunction with the Year Group Leaders, and the children often study computing as part of their work in other subject areas.
- 3.3 Our learning objectives are supported by lessons that can be worked through to achievement ensuring progression and development of a pupil's capability. Through the introduction of topic work, it is the year group's responsibility to record any changes /ideas / links used. The Computing Curriculum Leader with input from Subject Curriculum Leaders and Year Group Leaders is responsible for reviewing, updating and distributing these plans.
- 3.4 The class teacher is responsible the short-term planning and the computing component of each lesson. Their notes list the specific learning objectives of each lesson. The class teacher and the Computing Curriculum Leader often discuss them on an informal basis. Once a unit of work has been completed, it

is reviewed and evaluated by the year group and used to inform future planning by them and recorded by the Computing Curriculum Leader.

**Staff Objectives:**

As a minimum standard of professional competence the teaching staff are expected to:

- Be aware of internet safety policy and Child Protection/Safeguarding Policy
- Monitor the on screen activity of pupils in lessons
- Have an awareness of and monitor the effectiveness of the school filtering processes that block pupils from harmful content and denying them access to harmful content.
- Be capable of using the hardware and software provided to ensure children receive their computing entitlement
- Be able to print work
- Be able to use the internet and find information
- Be able to use a digital camera/iPad to take images
- Be aware of the Acceptable Use in School Policy (AUIS)
- Be able to use an iPad or Android device.

- 3.5 The topics studied in computing are planned to build upon prior learning. While we offer opportunities for children of all abilities to develop their skills and knowledge in computing, we also build planned progression into the planned work, so that the children are increasingly challenged as they move up through the school. (*Article 29 – A right to learn*)

**Pupil Objectives:**

At the end of KS1 children should:

- understand what algorithms are; how they are implemented as programs on digital devices; and that programs execute by following precise and unambiguous instructions
- create and debug simple programs
- use logical reasoning to predict the behaviour of simple programs
- use technology purposefully to create, organise, store, manipulate and retrieve digital content
- use technology safely and respectfully, keeping personal information private; know where to go for help and support when they have concerns about material on the internet
- recognise common uses of information technology beyond school.

**4 Foundation Stage**

- 4.1 Computing is taught in the Nursery classes as a valuable part of the work covered during the term. The Nursery class is part of the Foundation Stage of the National Curriculum. Computing is used initially to introduce / teach the children some basic skills and mouse control. The children have opportunities to use the computers and iPads daily with a variety of software programs.
- 4.2 We teach computing in Reception classes as an integral part of the topic work covered, relating the computing aspects of the children's work to the objectives set out in the Early Learning Goals (ELGs), which underpin the curriculum planning for children aged three to five. The children have many opportunities to use the computers and iPads. Throughout the year they gain confidence and start using the computer to find information and use it to communicate in a

variety of ways. Basic skills practice is still essential for the children and regular practise with typing programs is encouraged.

## **5 The contribution of computing to teaching in other curriculum areas**

5.1 Computing contributes to teaching and learning in all curriculum areas. For example, graphics work links in closely with work in art, and work using databases supports work in mathematics, while loaded software and the Internet prove very useful for research in humanities topics. Computing enables children to present their information and conclusions in a variety of ways. However, they are encouraged to use this information to enhance their work not just to produce the information printed straight from the site.

### **5.2 English**

Computing contributes to the teaching of English. Through the development of their keyboard skills encouraged by the use of typing presentation programs, children learn how to edit and now in Yr 2, revise text. They have the opportunity to develop their writing skills by communicating using appropriate programs.

### **5.3 Mathematics**

Many computing activities build upon the mathematical skills of the children e.g. number patterns and sequencing, fun times-table's games. Children use computing in mathematics to collect data, make predictions, analyse results, and present information graphically.

### **5.4 Science**

Computing can make Science come alive for the children with e.g. speeded up films of growing plants. Virtual experiments that cannot be simulated in the classroom are invaluable. *(Article 17: A right to get information)*

### **5.5 Personal, social and health education (PSHE) and citizenship**

Computing makes a contribution to the teaching of PSHRE as children learn to work together in a collaborative manner. They will develop a sense of global citizenship by using the Internet and e-mail. Through the discussion of moral issues related to electronic communication, children develop a view about the use and misuse of computing, and they also gain a knowledge and understanding of the interdependence of people around the world.

The issue of e-safety is also covered during PSHRE. *(Article 19 – A right to be safe).*

All pupils have equal access to computing and all staff follow the equal opportunities policy. As with all resources we ensure software and programs are not gender or culturally biased. *(Article 30 - A right to practise your own culture, language and religion).*

## **6 Teaching computing to children with special needs**

6.1 At Kenmore Park Infant & Nursery School we teach computing to all children, across all abilities, and including those who have English as an additional language. Computing forms part of our school curriculum policy to provide a broad and balanced education for all our pupils. Every Child Matters in all ways. We provide learning opportunities that are matched to the needs of children with learning and language difficulties.

In some instances, the use of computing has a considerable impact on the quality of work that children produce by increasing their confidence and motivation. When planning work in computing, we take into account the targets in the children's Individual Support Plans (ISPs).

## **7 Assessment and recording**

- 7.1 Teachers assess children's work in computing by making informal judgements as they observe them during lessons. On completion of a piece of work, the teacher reviews it and comments as necessary. At the end of a unit of work s/he makes a summary judgement about the work of each pupil in relation to the programmes of study and record their attainment in SIMS. We use this as the basis for assessing the progress of the children, reporting to parents and to pass information on to the next teacher at the end of the year.
- 7.2 Children save samples of their work in individual folders. This demonstrates the level of achievement in computing for each age and ability group in the school.
- 7.3 The National Curriculum levels of attainment have been introduced into the school. Education City, J2, LGFL, Busy Things and Study Ladder (a web based curriculum linked activity), have been bought into as tools to track individual progress.
- 7.4 The pupils in KS1 self-assess their understanding of computing using agreed feedback approaches which they are familiar with from other subjects.

## **8 Resources**

- 8.1 At present the school is fully networked with Internet Access. It has a computing Suite consisting of 30 workstations and Interactive Smart Board. All learning rooms have workstations and the rest have one plus an Interactive Whiteboard. In addition to the basic programs each year group has a range of suitable software and online programs specifically for use within that Year Group. There are workstations situated in the Intervention Room, Therapy Room, the library, the Welfare Room and Staffroom. We now also have access to a class set of 16 iPads per year group to support learning. We are now able to keep resources for computing, including software, in the Suite.
- 8.2 Along with the computers, at present the school has the following:

### Hardware

iPads, Roamers, Bee bots, IWBs, digital cameras and voice recording devices.

### Software

word processing packages; painting/drawing software; clip art; multimedia programmes; spreadsheets/database programmes; control programme; simulations; On-line talking books; Programmes purchased by Subject leaders; Assessment packages; KPINS Website has access through games; J2, MyUso, LGFL, Busy Things and Bug Club (an online reading support package);

## **9 Monitoring, filtering and review**

- 9.1 The monitoring of the standards of the children's work is the responsibility of the Computing Curriculum Leader, supporting colleagues in the teaching of computing, for keeping informed about current developments in the subject and for providing a strategic lead and direction for the subject in the school. The Headteacher will receive an annual summary report which evaluates the



strengths and weaknesses in the subject and indicate areas for further improvement. The Curriculum Leader has some allocated time for visiting classes to observe / assist the teaching of computing.

- 9.2 As part of staff safeguarding and online safety training, staff are made aware of their expectations, roles and responsibilities around filtering and monitoring systems so that they have the skills and knowledge to safeguard pupils effectively. (KCSIE 2023)

## 10 Internet Use

- 10.1 As part of the school's computing programme, we offer pupils all pupils in KS1 supervised access to the Internet. Before being allowed to use the Internet, all pupils must have their parents'/guardians permission. The signed computing/AUIS Home/School Agreement is evidence of the parents' approval and the children's acceptance of the school rules on this matter. (*Article 19 – A right to be safe*)
- 10.2 Access to the Internet will enable pupils to explore thousands of libraries for information, as well as exchanging messages with other Internet users throughout the world. Families should be aware that some information available on the Internet is not acceptable to us. As a result, we have taken every reasonable precaution to restrict access to such materials on our machines.
- 10.3 Kenmore Park Infant & Nursery School has updated its Internet Policy, now referred to countrywide as an Acceptable Use of computing Systems Policy (AUIS). For further information, please refer to this document.

### 10.4 Virtual Learning Environment (J2 & MyUSO)

J2 & MyUSO is used as a learning platform where children can access a digital classroom that runs alongside their regular classroom (*Article 28: A right to a good quality education*).

All staff and children have individual logins (*Article 8: A right to identity*) and passwords (*Article 16: A right to privacy*) to access J2 & MyUSO from home and school. A staffroom page exists to enable teachers to access school documents such as newsletters. Further development of the integration of this platform, across the curriculum to aid quality teaching and learning provision, is on-going. Surveys of children's access are carried out and used to inform how best to ensure that there are equal opportunities for access.

J2 & MyUSO also provides school information (*Article 17: A right to get information*) and a link for parents wanting to support their children's learning in computing and across the curriculum. This platform should be visited on a regular basis. It is a valuable resource for pupils to develop their computing skills.

## 11 INSET

- 11.1 Staff are aware of the importance and influence that computing plays in the children's lives in today's society. The Computing Curriculum Leader is responsible for informing the Staff of the hardware and software available in the school. The school is responsible for timetabling this INSET into its School Development Plan at least once a term.
- 11.2 It is the Subject Curriculum Leader's responsibility to keep up to date with software and resources appropriate to their curriculum area. They are also

responsible for supporting colleagues (with the computing curriculum leader) in the teaching of that subject using computing as a means of communication, for keeping informed about current developments in the subject and for providing a strategic lead and direction for the subject within the school's curriculum.

- 11.3 To ensure that Staff can make effective use of computing to support teaching and learning, the Computing Curriculum Lead ensures CPD opportunities are planned and incorporates staff on-going development as part of his subject specific school development plan.

## **12 Health and Safety (*Article 19 – The right to be safe*)**

- 12.1 Before being allowed to work in the computer suite all children are made aware of the arrangements if they hear the fire alarm. A copy of the evacuation route and location of fire extinguishers can be found on the wall of the suite. Portable equipment will be checked annually.
- 12.2 Children will also be made aware of the correct way to sit when using the computer and the need to take regular breaks if they are to spend any length of time on computers. Computer Room Rules are also on display within the computing room for reference along with specific rules for the use of Internet and E-mail. The school also has an 'Acceptable Use of computing Systems Policy'.
- 12.3 The school has an alarm system installed. Each computer system has security against access to the management system. The files and network system are backed up regularly. The virus checker is updated frequently.

**Responsible person:** Simon Christopher-Chambers (Computing Curriculum leader)

**Review date:** September 2023

**Next review:** September 2024