

# RUSKIN INFANT SCHOOL AND NURSERY



## Computing Policy

Revised: January 2020

Revised by: Ben Morris

To be reviewed by: January 2021

This school policy reflects the consensus of opinion of the whole teaching and support staff and has the full agreement of the governing body.

# RUSKIN INFANT SCHOOL AND NURSERY COMPUTING POLICY

## **Rationale**

The use of Information and Communication Technology (ICT) is an integral part of the National Curriculum and is a key skill for everyday life.

The school believes that ICT and Computing:

- gives pupils immediate access to a rich source of materials
- can present information in new ways which help pupils understand access and use it more readily
- can motivate and enthuse pupils
- can help pupils to focus and concentrate
- offers potential for effective group working
- has the flexibility to meet the individual needs and abilities of each pupil

This policy document sets out the school's aims, principles and strategies for the delivery of the Computing Curriculum.

## **Equality statement**

Ruskin Infant School and Nursery (including Ruskin Childcare) defines itself as a school free from discrimination. We will not discriminate against a pupil or prospective pupil by treating them less favourably because of their:

- Sex,
- race,
- disability,
- religion or belief,
- sexual orientation,
- gender reassignment,
- pregnancy or maternity

The school, through its policies and staff practices will also not discriminate against a pupil because they are associated with a person that displays the 'protected characteristics' as listed above.

Ruskin Infant School and Nursery defines four kinds of unlawful behaviour in relation to the Equality Act 2010, as

- direct discrimination
- indirect discrimination
- harassment
- victimisation

No unlawful behaviour will be tolerated in any way.

## **The school's aims for Computing**

At Ruskin Infant School and Nursery, we understand that a high-quality computing education is essential for pupils to understand modern information and communication technologies (ICT), and for them to use these skills to become responsible, competent, confident and creative participants of an increasingly digital world.

At Ruskin Infant School and Nursery we aim to:

- Develop the understanding of how to use ICT and computing safely and responsibly.
- Provide a relevant, challenging and enjoyable curriculum for ICT and computing for all pupils.
- Meet the requirements of the National Curriculum programmes of study for ICT and computing.
- Use ICT and Computing as a tool to enhance learning throughout the curriculum.
- Respond to new developments in technology.
- Equip pupils with the confidence and capability to use ICT and computing throughout their later life.
- Enhance learning in other areas of the curriculum using ICT and computing.
- Develop their ability to apply ICT to support their use of language and communication.
- Give children opportunities to explore their attitudes towards ICT, its value for themselves, others and society, and their awareness of its advantages and limitations.

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- ***Procedures and Roles***

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## ***Curriculum Management***

The Subject Leader will facilitate the use of Computing in the following ways:

- By updating the policy and scheme of work and provide updates for the governing body.
- By ordering/updating resources.
- By providing or organising INSET so that all staff are confident in how to teach the subject and have sufficient subject knowledge.
- Keep staff informed of new developments/research.

- By taking an overview of whole school planning to ensure that opportunities occur for pupils to develop ICT capability and that progression is taking place.
- By supporting staff in developing pupils' capability.
- By attending appropriate courses to update knowledge of current developments.
- By management of the technician to ensure the smooth running of ICT systems.
- Making sure all staff understand the system for logging faults and use of the Internet/Email.
- Monitoring the curriculum.
- Liaising with the IT technician to maintain software licences and their deployment.
- By seeing that all parents are consulted and informed about internet safety issues.
- By ensuring staff and pupils adhere to the practices and procedures in the 'Acceptable Use Policy'.

Parents are required to give signed authorisation before their child can use the Internet, either in guided or in independent school work. The parents are however assured that their child's use of the Internet at school is always supervised and as safe as filtering will allow.

- ***Assessment***

Teachers will assess children's work through on-going formative assessment.

- On completion of a learning experience or a piece of work, the teacher assesses the work, and uses this assessment to plan for future learning.
- Teachers will utilise skilled questioning techniques to gather assessment information.
- Verbal feedback is given to the child to help guide his/her progress.
- Older children are encouraged to make judgements about how they can improve their own work..
- Samples of work or observations should be kept and stored on the Google drive for students under 'student share' or in class folders on the server.
- Computing skills should be monitored regularly in relation to the Computing curriculum.
- Teachers should assess unit requirements with reference to children's knowledge, understanding and skills. Other opportunities for assessment will arise from cross-curricular work.
- Assessment against the National Curriculum allows us to consider each child's attainment/achievement and progress against expected levels and objectives. This ensures that our teaching is matched to the child's needs.

## ***Monitoring and reviewing***

The monitoring of the standards of the children's work and of the quality of teaching in Computing is the responsibility of the Subject Leader and Head Teacher. The Computing Governor will also be involved in this process on a regular basis. From time to time the co-ordinator may be requested to submit information and analysis of computing or present information to the Head Teacher or governors. The Subject Leader has specially-allocated time for carrying out the vital tasks of reviewing planning, samples of the children's work, and of visiting classes to observe the teaching of Computing.

## ***Health and Safety/Security***

This policy runs in conjunction with the 'Acceptable Use Policy' which outlines the roles, responsibilities and procedures for the acceptable, safe and responsible use of all on-line technologies to safeguard children and adults. This also ensures that GDPR is followed accurately.

Children are aware of the safety requirements when accessing computers which are taught throughout the units of work. Online safety is promoted throughout the planned units of computing as well as being discussed in other areas of the curriculum where applicable. For example during an English lesson when children are using technology to take photographs they are made aware of the importance of keeping themselves safe online. This can also be discussed in PSHE and class reflection sessions.

Children are taught by teachers how to sit when using the computer and the need to take regular breaks if they are to spend any length of time on computers.

The schools laptops and iPads are securely locked away in secure trollies when not in use. It is every member of staff's responsibility to put equipment away correctly when they have finished using it. The school has an alarm system installed. Each computer system has individual security against access to the management system. The files are backed up regularly. The virus checker is updated regularly. The School Bursar is the Virus Protection Officer.

All staff laptops and iPads will be stored away out of sight or taken home each night. When replacing equipment they will be encrypted to ensure data is safe. All relevant staff have been supplied with an encrypted memory stick.

We employ a technician to keep our equipment in good working order. Members of staff report faults to the ICT coordinator using a reporting book

that is kept in the office for easy access. The technician will also set up new equipment, and install software and peripherals. Copyright and licensing regulations will be adhered to at all times. All equipment will be PAT tested yearly.

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- **Curriculum**
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The objective for teaching Computing is to equip children with the technological skill to become independent learners, the teaching style that we adopt is as active and practical as possible. While at times we do give children direct instruction on how to use hardware or software, the main emphasis of our teaching in Computing is for individuals or groups of children to use computers to help them progress in whatever they are studying.

Each class is allocated computing time each week at an appropriate time when children can have access to their own laptop/ iPad, to accomplish their Computing scheme of work units. Each class also uses the equipment to apply their skills in other subjects.

It is recognised that all classes have children with a wide range of ICT abilities. This is especially true when some children have access to ICT equipment at home, while others do not. The school provides suitable learning opportunities for all children by matching the challenge of the task to the ability and experience of the child. It is achieved in a variety of ways:

- Setting tasks which are open-ended and can have a variety of responses.
- Setting tasks of increasing difficulty (not all children complete all tasks).
- Grouping children by ability in the room, and setting different tasks for each ability group.
- Providing resources of different complexity that are matched to the ability of the child.
- Using classroom assistants to support the work of individual children or groups of children.

### ***Early years Foundation Stage- Technology***

It is important in the Foundation Stage to give children a broad, play-based experience of technology in a range of contexts, including outdoor play. Technology is not just about computers. Early years learning environments should feature Technology scenarios based on experience in the real world, such as in role play. Children gain confidence, control and language skills through opportunities to 'paint' on the whiteboard or programme a toy. Recording devices can support children to develop their communication skills. This is particularly useful with children who have English as an additional language. Children can use educational apps on iPads.

## **Key Stage 1 - Computing**

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

- Understand what algorithms are, and how they are implemented.
  - Create and debug simple programs.
  - Predict the behaviour of simple programs.
  - Create, organise, store, manipulate and retrieve digital content.
  - Recognise common uses of ICT beyond school.
- Use technology safely and respectfully, keeping personal information private, and to identify where to go for help and support when they have concerns online.

## **Key Stage 2 – Computing**

We also understand the journey that children continue to make as they move to the junior school and KS2. With an understanding that the overview of what they should be taught is:

- Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems, and solving problems.
- Use sequence, selection, and repetition in programs.
- Work with variables and various forms of input and output.
- Explain how some simple algorithms work, and how they can detect and correct errors.
- Understand computer networks, how they can provide multiple services, and the opportunities they offer for communication and collaboration.
- Use search technologies, understand how results are selected and ranked, and be able to critically evaluate digital content.
- Select, use and combine a variety of software on a range of devices to design and create programs, systems and content that accomplish specific goals.
- Use technology safely, respectfully and responsibly, recognise acceptable behaviour and identify a range of ways to report online concerns.

The school uses the Rising Stars Computing scheme to deliver the Computing curriculum through units planned in line with the National Curriculum. This allows for clear progression and is designed to enable pupils to achieve stated objectives. Staff will follow medium term plans with objectives set out in the national curriculum and plan suitable learning experiences using the Rising

Stars scheme. This must be planned on the schools medium term planning format which allows for the scheme to be adapted to suit the children's understanding. The scheme must be adapted to ensure the school's technology is suitable. Online safety must not be discussed as a stand alone issue and should be discussed in most computing lessons and other aspects of the curriculum to develop children's awareness and resilience when they encounter an issue.

The teaching of Computing contributes to teaching and learning in all curriculum areas. It also offers ways of impacting on learning which are not possible with conventional methods. QR code readers are available on the iPads for teachers to use throughout the curriculum. Teachers will also use interactive boards in their everyday practice to support teaching and learning for a range of curriculum areas.

### ***English***

Computing can be used as a major contributor within the teaching of English. Children's reading development is supported through talking stories. As the children develop mouse and keyboard skills, they learn how to edit and revise text on a computer. They have the opportunity to develop their writing skills and word processing skills through inputting and editing their work. Children can use iPads for speaking and listening activities to record and evaluate their own work and the work of others.

### ***Mathematics***

Children use Computing in mathematics to collect data and make predictions. They use Microsoft Excel to present this data in various ways. Children can use technology to explore and apply their understanding of shape and position and direction.

### ***Science***

Software is used to animate and model scientific concepts, and to allow children to investigate processes which it would be impracticable to do directly in the classroom. Digital microscopes are also used on a whole class basis and individually.

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

Computing makes a contribution to the teaching of PSHE and citizenship in that children in Computing classes learn to work together in a collaborative manner. They also develop a sense of global citizenship by using the Internet. Through discussion of online safety and other issues related to electronic communication, the children develop their own view about the use and misuse of Computing, and they also gain an insight into the independence of ICT

users around the world. It is important that children develop resilience when using technology and understand that they must protect themselves.

### ***Art and Design***

Computing offers opportunities for children to be creative. Children in Key Stage One are required to explore taking photographs and creating videos. Throughout the school children have opportunities to create pictures using paint programs on laptops and iPads. Children can also consider the presentation of their work when using Microsoft Office.

### ***English as an Additional Language***

At Ruskin Infant and Nursery School Computing is taught to all children, whatever their ability and individual needs. Computing forms part of the school curriculum policy to provide a broad and balanced education to all children. Through our Computing teaching we provide learning opportunities that enable all pupils to make good progress. We strive hard to meet the needs of those pupils with special educational needs, those with disabilities, those with special gifts and talents, and those with English as an additional language, and we take all reasonable steps to achieve this. For further details see separate policies.

### ***Resources***

Our school has the appropriate computer-to-pupil ratio, and Internet access. Most software is already installed on PCs and laptops or on Staffshare. Some software is installed only on the class PC.

There are a number of laptops which are on loan to particular teachers and must be returned when teachers leave the post.

In order to keep our school computers virus-free, no software from home will be installed on school computers. Where teachers are transferring files between their home and school, they must have up-to-date virus protection software on their home computers.

Along with desktop and laptop computers, the school has the following:

### **Hardware**

- network, including switch, router and server PC;
- a store box;
- network shared resources, including printers;
- Laptop computers and portable trollies;
- iPads and sync hardware

- interactive whiteboard and screen projection equipment;
- clevertouch whiteboards
- digital stills and video camera;
- tape-based listening centre and digital sound recorder;
- calculators;
- floor robots;
- headphones and microphones;
- overhead projectors;
- card reader for digital memory cards;
- USB drives for portable storage;
- Visualisers

## **Software**

- word-processing and desktop-publishing programs;
- painting and drawing software;
- multimedia presentation program;
- spreadsheet and database programs;
- virus protection.
- On-line interactive programs.
- Interactive whiteboard teaching resources.
- Interactive whiteboard software
- Clever touch software downloadable through cleverstore