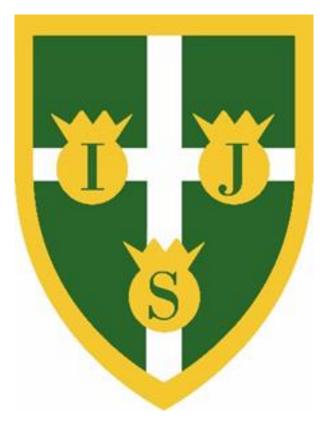# Ingrave Johnstone

Church of England Primary School

Computing Policy

Agreed by Governors: Summer 2022

Review Date: Summer 2025

<u>**Ingrave Johnstone Church of England Primary School**</u>
<u>**Computing Policy**</u>

Introduction

This document will set out our principles, aims and objective and strategies for the teaching and learning of computing at our school. We aim to always create a positive and challenging learning environment that stimulates thought-provoking questioning to enable and prepare children for the wider-world. This policy was developed in Summer 2019 by the computing coordinator, reflecting the consensus of opinion of the teaching staff and approved by the Governing body. The implementation of this policy is the responsibility of all members of staff.

Purpose of study

'A high-quality computing education equips pupils to use computational thinking and creativity to understand and change the world. Computing has deep links in mathematics, science, and design and technology. It provides insights into both natural and artificial systems. The core of computing is computer science, in which pupils are taught the principles of information and computation, how digital systems work, and how to put this knowledge to use through programming. Building on this knowledge and understanding, pupils are equipped to use information technology to create programs, systems and a range of content. Computing also ensures that pupils become digitally literate – able to use, and express themselves and develop their ideas through information and communication technology – at a suitable level for the future workplace and as active participants in a digital world.'

    (National Curriculum for England, DfE 2013)

Aims of Computing

At Ingrave Johnstone our aims 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, competent, confident and creative users of information and communication technology

Curriculum organization

- The teaching style we adopt is as active and practical as possible.

- Not all children have access to IT equipment at home. We provide suitable learning opportunities for all children by matching the challenge of the task to the ability and experience of the child.
- Computing is taught on a weekly basis, allocated at least one hour for KS1 and KS2.
- In EYFS, computing is planned and taught weekly where tasks can be either whole class or small group activities.
- In KS1 and KS2, children are taught as a whole class and tasks are differentiated accordingly to age and ability. All computing lessons in KS1 and KS2 are taught in accordance with the Switched on Computing syllabus.
- Computing topics are taught in a spiral curriculum with each topic being revisited each year. This ensures a clear progression across the school.
- Any software and programs on the school system is reviewed and added to when necessary.
- An Internet policy has been developed in order to allow the safe and efficient use of the Internet for both staff and pupils in an educational context.
- In computing, as with all subjects, in order to develop the continuity and progression of teaching and learning, a balance between whole class, individual and group work, and direct teaching, pupil investigation and skills practice should be planned throughout the school.

Inclusion

All children should have access to the use of computing technologies regardless of gender, race, cultural background or physical or sensory disability. Where use of a school computer proves difficult for a child because of a disability, the school will endeavor to provide specialist equipment and software to enable access. Children with learning difficulties can also be given greater access to the whole curriculum through the use of these technologies. Their motivation can be heightened and they are able to improve the accuracy and presentation of their work. This in turn can raise self-esteem.

Planning for Computing in the early years needs to be considered carefully if children are to begin to gain confidence in the use of a variety of technologies. A range of appropriate hardware, software and activities needs to be offered.

Links to the school development plan

- The computing coordinator produces an action plan annually and, when appropriate, after meeting with a governor.
- An audit of resources is undertaken regularly to ensure that hardware and software are kept as up to date as possible and that obsolete or broken machines are scrapped or repaired.

Cross-curricular links

Computing contributes to teaching and learning in all areas. For example, graphics work links in closely with work in art, and work using databases supports work in mathematics, while the Internet proves very

useful for research in humanities subjects. Information technology enables children to present their information and conclusions in the most appropriate way.

Resources

- There is a whole school scheme of work, 'Switched On Computing', in which teachers use to aid them in planning for their weekly lessons. This scheme of work also enables teachers to have access and knowledge of a variety of programs and software which accompany these particular units. From this, teachers then have the opportunity to add the software to the system through the IT technician. This computing scheme has been implemented as of October 2018, with teachers planning for their year group with a bespoke/personalized program of study based on the new National Curriculum and current scheme of work.
- The school has laptops within the school building for the use of the children within and outside of their computing lessons.
- Each class also has at least one designated class laptop for the children's use within the classroom. All laptops are linked to the school network with appropriate software for all children around school to use.
- There is a variety of other IT equipment in school including Beebots, CD players, visualizers, interactive whiteboards, recording equipment including digital cameras and Ipads.

Staff training

- Auditing staff skills and confidence in the use of information technologies regularly.
- Arranging training for individuals as required.
- The computing coordinator should attend courses and support and train staff as far as possible.
- Staff meetings to occur when appropriate. They will be planned for and delivered to all staff to update them on changes to the curriculum or planning. They will also be used to model how to use new equipment.
- Annual e-safety training must be arranged and completed by all staff working with children.
- All staff must be trained on professional conduct and safer working practices regarding technologies such as Twitter, Facebook, Blogging etc.

Computing technician's role

As a school, we employ an IT technician who is responsible for the maintenance, repair and professional advice. The technician is allocated to us for half a day a week and is responsible for:
- supporting the computing coordinator with hardware issues
- checking and keeping up to date with computer related problems written down in the 'issues' book
- liaising with the computing coordinator and staff on general maintenance issues
- installing new software onto the server and computers

- sourcing parts required for hardware issues
- installing and updating of the school anti-virus software provided by LA
- backing up data from the schools server
- keeping the database of school hardware up to date
- overseeing with the computing coordinator the disposal of decommissioned hardware
- updating the school's website

Record keeping and assessment

- Children's progress is measured against descriptions in the National Curriculum and summative assessments are made at the end of every term. These assessments highlight children who are working above and below the expected level.
- Computing coordinator analyses the data termly to check for gaps and to ensure every child is making progress.
- EYFS base their assessments on the objectives within the Early Learning Goals.
- The annual report to parents, on the child's progress and attainment is informed by the summative assessments.

Health and Safety

- Children should not be responsible for moving heavy equipment around the school. They may load software but should not be given the responsibility of plugging in and switching machines on without a member of staff present if they have not previously been showed how to do this safely.
- Food and drink should not be consumed near Computing equipment
- Staff should ensure that the children are seated at the computers comfortably and be aware of the dangers of continuous use (e.g. eye/wrist strain etc).
- An adult should always supervise children when they are accessing information via the Internet. The service provider does filter information but staff are advised to take great care on the content accessed by children and are ultimately responsible for information accessed by pupils.

Review and evaluation procedures

Monitoring and evaluation is undertaken termly through:
- Looking at samples of children's work through any written work in books and creative work through photographs, teacher notes and evaluations of lessons.
- Pupil questionnaires by both class teachers and computing coordinator.
- Data analysis by the computing subject leader at the end of each term to ensure good progression is being made by all children. Data sheets are then constructed to check for strengths and weaknesses across the different phases.

The everyday use of communication technology is developing rapidly, with new technology being produced all of the time. The Computing coordinator will liaise regularly with staff, both at staff meetings and informally, to monitor the effectiveness of the policy and the Computing curriculum. Meetings with subject coordinators will also ensure that the use of information technologies across the curriculum is planned for and evaluated.