COMPUTING POLICY

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Policy prepared/reviewed by: Kirstie Sloan

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Linked Policies

This policy is the umbrella policy for Somerville Primary School's curriculum. Each individual subject area has its own policy document or subject statement to add extra detail and clarification. It should be read in conjunction with the Curriculum, Teaching and Learning, Assessment, SEND, Marking and Feedback and Homework documents.

COMPUTING **INTENT** AT SOMERVILLE

Computing is an integral part of our everyday life and will play an immeasurable part in our children's futures. At Somerville Primary school, we will provide all of our children with the skills, creativity and resilience to live and thrive in a world where technology is continuously and rapidly evolving. It is our aim to ensure that all children leave primary school computer literate. We want to model and educate our pupils on how to use technology positively, responsibly and safely. Computing skills are a major factor in enabling children to be confident, creative and independent learners and it is our intention that children have every opportunity available to allow them to achieve this. We ensure that we provide a high-quality computing education which equips children to use computational thinking and creativity.

The Somerville Computing Curriculum is designed to:-

- Meet the requirements of the national curriculum programmes of study for Computing at Key Stage 1 and 2
- Develop the understanding of how to use ICT and computing safely and responsibly.
- Equip pupils with the confidence and capability to use ICT and computing throughout their later life.
- Expose children to new developments in technology to prepare them to live in a world where technology is continuously and rapidly evolving.
- Enable children to build and apply a repertoire of knowledge and skills linked to the three strands of the national curriculum: computer science, digital literacy and information technology.
- Give children the opportunity to 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.
- Children will be responsible, competent, confident and creative users of information and communication technology.
- Use ICT and computing as a tool to enhance learning throughout the curriculum.

Aims based on the three strands of computing:

Computer Science

- To enable children to become confident coders on a range of devices.
- To create opportunities for collaborative and independent learning.
- To develop children's understanding of technology and how it is constantly evolving.

Digital Literacy

- To enable a safe computing environment through appropriate computing behaviours.
- To allow children to explore a range of digital devices.
- To promote pupils' spiritual, moral, social and cultural development.

Information Technology

- To develop ICT as a cross-curricular tool for learning and progression.
- To promote learning through the development of thinking skills.
- To enable children to understand and appreciate their place in the modern world

CURRICULUM **IMPLEMENTATION** AT SOMERVILLE

Approach to Teaching and Learning and Pedagogy

Our approach to teaching computing supports our Somerville Curriculum by ensuring that lessons build on prior learning. They provide sufficient opportunities to build 'sticky' knowledge across the school and across subject areas that have been carefully planned. We have a clear and effective, bespoke scheme of work that provides coverage in line with the National Curriculum. Teaching and learning should facilitate progression across all key stages within the strands of digital literacy, information technology and computer science. The LTP for computing shows National Curriculum coverage, progression across year groups and plenty of opportunities to use a wide range of hardware and software.

A detailed MTP for each topic across the school has been created to ensure progression, equip the teachers with the content to teach and lessen the short term planning burden. Every computing MTP contains:

- An entry point activity to excite the children
- Hardware and software chosen specifically to ensure the best outcome for that objective.
- Previous year group knowledge on the topic
- Intent – learning objectives to be covered
- Implementation – sequence of activities and evidence to achieve the Intent objectives
- Impact – TAPS assessment activity to inform assessment judgement
- Specific Key Vocabulary to be addressed throughout the topic
- Sticky links to be embedded
- Unplugged lessons
- Scaffolding is planned in to enable children to achieve to the best of their ability.

How is computing taught at Somerville?

- Computing is taught in blocks each half term to ensure continuity and progression throughout the topic.
- Each child is provided with the Knowledge Organiser for their topic containing: key vocabulary and definitions, key knowledge that will be covered and an example of the hardware or software that the children will be using. The knowledge Organisers will be stuck into the child's book so they can refer back to it throughout the unit.
- At Somerville Primary School, we understand the importance of online safety and that is why we have chosen to teach online safety at the start of each computing unit.
- The teachers follow the Intent and Implementation on the MTP to ensure the children the children cover all the objectives through engaging practical lessons.
- Within each unit, children will have access to the hardware and software needed to develop knowledge and skills of digital systems and their applications. Teachers give the children the opportunity to explore the hardware and software.

Enrichment Experiences

Each MTP has an entry point activity or experience to excite the children, develop their curiosity and love of computing. To keep children in line with technology as it is constantly expanding and changing we ensure that children have access to a wide range of resources as well as providing opportunities for outside agencies to come into school with exciting resources. Children are given the chance to explore new technology and develop their skills

through extra-curricular activities. Those children who are extremely passionate about computing are given the opportunity to become a digital leader in KS2. Within these sessions, the children learn what it is to be a digital leader, they take on computing responsibilities and are given opportunities to enhance their skills through CPD.

Reading and Vocabulary

Key vocabulary is stated clearly on each MTP and teachers must ensure this is the vocabulary they are modelling to the children. At the beginning of each unit, children will be exposed to the vocabulary that they will cover within that unit of work through the use of knowledge organisers. They will explore the vocabulary and use it in context throughout their work. Children will be able to demonstrate they have a good understanding of the vocabulary at the end of the unit when they are assessed using a partially filled out knowledge organiser.

Special Educational Needs and Computing

We ensure all children are accessing the curriculum and meeting their needs within all of our lessons. As some children will find aspects of computing difficult, teachers are required to provide children with the necessary resources to help them achieve their objective. Work within the computing curriculum can be scaffolded to ensure the lesson is accessible for all children and all types of learners. Children can also be supported by their peers within the classroom allowing them both to develop a secure understanding. We have access to a range of resources to allow all children to be able to access the curriculum at their level and to suit their needs.

CURRICULUM IMPACT AT SOMERVILLE

Teachers assess children using formative assessment within each lesson and use this as a tool to be able to identify any children who require support in the next lesson. Progress of our computing curriculum is demonstrated through outcomes and the record of coverage in the process of achieving these outcomes. Children independently complete an assessment task at the end of each unit demonstrating their level of understanding of what has been taught. This is stated within the impact section of the MTP. As well as an impact activity, children complete a partially filled out knowledge organiser. Teachers assess this piece of work and record the level at which the child is working at using the whole school, non-core assessment format. This ensures teachers are aware of individual pupil's progress in computer science, information technology and digital literacy. Each year group completes the assessment to illustrate child attainment and progression through the subject throughout their time in Somerville Primary School. We look for evidence through reviewing pupil's knowledge and skills within their computing books. Pupil voice surveys are carried out to ensure children are showing a good understanding of their learning and making the required progression.

EQUALITY IN COMPUTING EDUCATION

Somerville Primary School is committed to valuing diversity and to equality of opportunity. We aim to create and promote an environment in which pupils, parents and staff are treated fairly and with respect, and feel able to contribute to the best of their abilities. The Governing Body recognises that it is unlawful to take into account anyone's gender, marital status, colour, race, nationality, ethnic or national origin, disability, religious beliefs, age or sexual orientation. Full consideration has been given to this during the formulation of this policy as

it is the governors' aim that no-one at Somerville Primary School should suffer discrimination, either directly or indirectly, or harassment on any of these grounds.

SMSC

When writing this policy and planning for lessons, we have planned in opportunities that allow discussion and learning around pupils social, moral, spiritual and cultural development. Teachers will raise questions in a range of topics and children will also be encouraged to raise their own questions. Computing contributes to SMSC by preparation for the challenges of living and learning in a technology enriched world, making clear guidelines about the ethical use of the internet. Children are taught the importance of Internet and online safety when working online using a variety of different platforms. We ensure that children have the knowledge and tools to report any instances of bullying, cyber-bullying and online safety issues. Children are given the opportunity to explore the moral issues around data and sharing information.

SAFEGUARDING: ONLINE SAFETY

At Somerville Primary School, we ensure that online safety is given a high profile and this is maintained throughout the year. We ensure that the pupil needs are met by the following:

- A relevant up-to-date online safety curriculum which is progressive from Early Years to the end of Year 6.
- Online safety is taught throughout the year at the start of each computing unit.
- Opportunities for learning about online safety are part of our Computing and PHSCE lessons and are reinforced whenever technology is used.
- The school supports the international Safer Internet Day each February.
- Training for staff and governors which is relevant to their needs and ultimately positively impacts on the pupils.
- Through our home/school links and communication channels, parents are kept up to date with relevant online safety matters, policies and agreements. They know who to contact at school if they have concerns.
- Pupils, staff and parents have Acceptable Use Policies which are signed and copies freely available.
- Our online safety policy clearly states how monitoring of online safety is undertaken and any incidents/infringements to it are dealt with.
- Filtering and monitoring systems for all our online access.

RESOURCES

The school acknowledges the need to continually maintain, update and develop its resources and to make progress towards consistent, compatible computer systems by investing in resources that will effectively deliver the objectives of the National Curriculum and support the use of IT, computer science and digital literacy across the school. Computing network infrastructure and equipment has been sited so that:

- Every classroom from nursery to Y6 has a computer connected to the school network and an interactive whiteboard with sound, DVD and video facilities.

- There are …. Laptops across 3 trolleys.
- The ICT suite contains … computers
- Each Y6 classroom has a trolley of 14 Chromebooks with chargers.
- Y3-Y5 have access to 7 Chromebooks per class.
- KS1 have access to 5 iPads per class and 1 iPad trolley.
- FS2 have a trolley of iPads.
- The Beehive base has access to their own small trolley of iPads.
- Each class teacher has their own iPads.
- Internet access is available in all classrooms.
- The school has a computing technician (Mr. Collier) who ensures technology is functional. He provides support to staff in school on a timetabled basis.
- A link governor has been allocated and is in contact with the computing subject lead.