Salisbury Primary School

Computing Policy

Reviewed: July 2023

Next Review Date: July 2025

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Salisbury Primary School - Computing

1. Curriculum Statement

Intent

The National Curriculum 2014 for Computing aims 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,

The programmes of study describe a sequence of concepts and knowledge. While it is important that pupils make progress, it is also vitally important that they develop a secure understanding of each key block of knowledge and concepts in order to progress to the next stage. Insecure, superficial understanding will not allow genuine progression: pupils may struggle at key points of transition, build up serious misconceptions, and/or have significant difficulties in understanding higher-order content.

The expectation is that the majority of pupils will move through the programmes of study at broadly the same pace. Pupils who grasp concepts rapidly will be challenged before any acceleration through new content. Those who are not sufficiently fluent with earlier material should consolidate their understanding, including through additional practice and with additional support, before moving on.

Pupils should develop an extended specialist vocabulary in relation to computing. Pupils should also apply their knowledge of maths, science and other curriculum subjects to computing. Staff should use a variety of teaching styles and different contexts to maximise pupils' engagement and motivation to study computing. When teaching computing at Salisbury we intend to provide a curriculum, which caters for the needs of all individuals and equips pupils with the necessary skills and knowledge for them to become successful both in school and in their future working lives.

Implementation

In EYFS, children engage in broad, play-based experiences of computing and ICT in a range of ways and contexts that allow children to explore and flourish freely. Children have a rich ICT resource bank available for them to access daily, within both adult-led activities and continuous provision.

ICT and computing are intertwined throughout a carefully planned curriculum, reflected across the seven areas of learning. Children gain confidence, control and language skills through opportunities to explore ICT in a range of ways, within the classroom and the outdoor learning environment. The Early Years learning environments also feature ICT scenarios based on experiences in the real world, such as in pretend play. We encourage children to reflect on and develop what they already know and have encountered within daily life.

In Key Stages 1 and 2, Computing is taught as a stand-alone subject as well as being incorporated into the wider curriculum areas, as appropriate. At Salisbury we follow the 'Purple Mash' scheme of work in order to fulfil the National Curriculum objectives. Staff regularly discuss/review the effectiveness of this scheme. All lessons planned cover National Curriculum objectives and Purple Mash updates the site regularly, maintaining a high quality coverage of the computing curriculum.

Furthermore, in order to fulfil the national curriculum objectives, class teachers follow the carefully devised, computing long-term plan for their year group. The units of work are organised throughout the year allowing pupils to revisit and enhance prior learning. This allows pupils the opportunity to revisit skills they have acquired throughout the year and in previous years, whilst having the opportunity to develop and enhance their knowledge and understanding further within the unit.

By the end of KS2, pupils should be able to confidently use and understand the relevant vocabulary and have a secure knowledge of computer science, information technology and digital literacy.

Within computer science, pupils should be able to:

- Design, write and debug programs that accomplish specific goals.
- Use sequence, selection and repetition in programs.
- Use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs.
- Understand computer networks, how they can provide multiple services, such as the World Wide Web, and the opportunities they offer for communication and collaboration.

Within information technology pupils should be able to:

- Use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content.
- Select, use and combine a variety of software on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals.

Within digital literacy pupils should be able to use:

- technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concern about content and contact.

Impact

Teaching staff reinforce an expectation that all pupils are capable of achieving high standards in computing. Teachers follow the Purple Mash scheme of work to teach computing across all year groups. Computing lessons are delivered using a range of resources, including Google ChromeBooks, iPads, laptops, power point presentations, questioning, videos and demonstration of practical skills.

As a result, pupils demonstrate confidence and a high level of taught subject knowledge to apply what they have learnt. Furthermore, all pupils are encouraged to be able to understand how to transfer the skills taught in the subject into their everyday lives, and gives them the opportunities to develop these interests in their next stage of learning and beyond.

At Salisbury, teachers make links between the computing curriculum and the wider curriculum; geography, maths, D&T, ensuring pupils have access to a broad and balanced curriculum. Furthermore, pupils are able to engage in further opportunities to learn skills in computing by participating in Safer Internet Day.

2. Teaching and Learning

At Salisbury, computing lessons will last approximately 45 mins to an hour. Across KS1 and KS2 computing is taught once a week. The computing lesson follows the format as below:

- Each pupil is provided with their own allocated Google Chromebook, to ensure pupil autonomy
- Teachers will share a refined and child-friendly learning objective with pupils
- Pupils are introduced to the programme that will be used in the relevant unit of work. During this process, teachers support and model each step as required. The pupils can share and discuss the programme and steps displayed on the board. The class will share their ideas and reasoning with teachers within this part of the computing lesson.
- All pupils then move onto their activity using their own Chromebook to execute the step in the programme, which the teacher has instructed. Pupils complete this process independently or with teacher support if required. During a computing lesson, pupils will complete different activities/steps to extend their understanding and skills at using that aspect of the programme. Where necessary, teachers differentiate the activities, to cater for each pupils' needs and ensure all pupils can access the learning in each computing lesson.
- During the review part of the computing lesson, there is an opportunity for pupils to communicate what they have learned in the lesson in an appropriate and meaningful way. This also enables teachers to gauge the depth of pupils' understanding and knowledge.

3. Assessment

Pupils receive effective feedback through ongoing teacher assessment. The structure of the teaching sequence in computing ensures that pupils are aware of how to be successful in their independent work. Common misconceptions are addressed within the teaching sequence and

key understanding is reviewed and checked by the teacher and the pupils before progression to further depth.

At Salisbury, our on-going assessment in computing focuses on pupils' developing their understanding, knowledge and skills in computer science, information technology and digital literacy. Evidence from lessons, pupils' work and feedback given to pupils, enables the teacher to make accurate judgements about pupil achievement, assessing pupils' understanding of computing knowledge and skills. At the end of the year, pupil outcomes are used to inform future priorities.

4. Planning & Resources

Teachers use Purple Mash to plan and deliver effective and engaging computing lessons. These computing lessons build on previous understanding, knowledge and skills across each year group. In EYFS, children explore computing through the seven areas of learning. In KS1 and KS2, each unit of work is fully prepared and ready to teach (teachers adjust and adapt lessons according to the needs of their pupils). It includes detailed lesson plans, slideshows for the teaching input, differentiated activities to cater for different learners' needs and offers suitable challenges within these lesson plans.

Chromebooks are provided for all pupils in Key Stage 1 and 2 and are located within individual classrooms. The computing subject leaders attend regular training from which leaders put together training on updates in computing and signpost new resources for teachers to enhance professional development and subject knowledge at Salisbury.

5. Organisation

At Salisbury, in KS1 and KS2 computing is taught every week. The school has implemented a blocked curriculum approach to the teaching of computing. This ensures pupils are able to focus for longer on each unit of computing and develop a more secure understanding over time. This approach is also designed to enable pupils to progress to a greater depth of understanding. Subsequent blocks continue to consolidate previous learning so that pupils continually develop their computing knowledge and skills.

At the beginning of each half-term, all teachers deliver an online safety lesson to pupils. This is to remind pupils what online safety is and how they can remain safe online, both within and outside of school. Each academic year, all classes participate in Safer Internet Day, whereby pupils will spend the day or sessions across the week, focusing on different ways of how to stay safe when online, including spotting cyber bullying, how to create safer passwords, and protecting their personal information while online. This continued yearly focus on online safety has been successful and ensures pupils remain vigilant and aware when online.

6. EYFS

The development of basic foundations and skills needed to support children's understanding and application of computing and ICT are intertwined throughout the seven areas of learning

within the Early Years Foundation Stage curriculum and is promoted through cross curricular experiences and learning.

Nursery

Children within Nursery have available to them simple remote-control toys including beebots. Children's independence is encouraged throughout to match their physical skills to achieve a task, complete an activity and explore how things work developing their understanding of the world and personal, social and emotional skills.

Reception

In Reception, children have a variety of ICT equipment available to them to enhance their curriculum including mini-iPads, interactive whiteboards, beebots and recording buttons. These resources are used cross curricular to support and consolidate learning and concepts across all areas of the curriculum. The use of ICT equipment is used throughout both adult inputted sessions and child-led continuous provision. Children are exposed to programmes such a Power Maths and Phonics Bug Club daily; they are encouraged to access reading books interactively and develop comprehension skills. Recording buttons are used by children to support their sentence writing and storytelling. Children will also use recording buttons to receive information and instructions recorded by the teacher when accessing table top activities. These resources are especially useful for children who may have English as an additional language.

Pretend play is a vital part of promoting the use ICT and computing across the Early Years Foundation Stage. This type of play puts learning into context for children, creating everyday situations and scenarios, building on previous experiences. Props such as keyboards, telephones, microphones and torches are made available daily and make various links across the curriculum.

By the end of Reception, children will be showing confidence and independence using and accessing technology and be familiar with learning platforms such as Power Maths, Phonics Bug Club and Purple Mash.

7. KS1 and KS2

We use Purple Mash's computing programme of study which includes high-quality activities, which are structured with great care to build deep computing knowledge, understanding and skills. KS1 and KS2 teachers use Purple Mash's online pupil portfolios to evidence pupils' work and progress within Computing. Within planning and lessons, teachers outline the lesson's learning objective, followed by teacher modelled examples, and tasks for pupils to complete independently. Computing lessons in both key stages follow the same sequence (see the previous section on Teaching & Learning).

8. Equal Opportunities and Inclusion

The school is committed to ensuring the active participation and progress of all pupils in their learning. All pupils will be given equal opportunities to achieve their best possible standard,

whatever their current attainment and irrespective of gender, ethnic, social or cultural background, home language or any other aspect that could affect their participation or the progress of which they are capable.

At Salisbury, differentiation during computing lessons occurs in the level of support provided to different pupils, not in the topics taught. There is little differentiation in the content taught but the questioning and scaffolding individual pupils receive in class as they work through the challenges will differ, with higher attaining pupils challenged through more complex challenges, which deepens their computing knowledge and understanding. Pupils' difficulties and misconceptions are identified through immediate formative assessment and are addressed within the computing lesson.

9. Role of the Computing Team

The Computing team will:

- Work to raise the profile of computing at Salisbury through best practice.
- Provide support for staff to enhance subject knowledge in the teaching and learning of computing.
- Ensure classroom environments are conducive to learning, through effective use of displays and accessibility and availability of resources.
- Ensure that all staff have access to Purple Mash.
- Monitor how the subject is taught and assessed.
- Ensure the progression statements are being followed and met.
- Ensure that all pupils have access to, and receive a broad and balanced curriculum through memorable learning experiences that will enhance their knowledge, skills and understanding.
- Organise, audit and purchase computing resources.

10. Parental Involvement/Home Links

At Salisbury, we recognise that parents and carers have a valuable role to play in supporting their child's computing knowledge and skills.

- Parents are expected to read and adhere to the home-school learning agreement in the event of remote learning.

- Each year group's expectations are shared with parents through termly newsletters so they are able to support them at home with the topics their child is learning.

To be reviewed July 2025