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Computing Policy

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**Computing Policy**

This policy outlines the structures in place to ensure that Southcoates Primary Academy delivers a high quality computing curriculum for all learners.

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**Intent**

**Purpose of Study**

Southcoates Primary Academy follow the ELT Computing Curriculum, a trust-wide computing scheme developed by The Enquire Learning Trust. At Southcoates Primary Academy, we believe that it is vital for all our pupils to learn from and about Computing, so that they can understand the world around them. Through teaching our computing curriculum, we aim to equip our children to participate in a rapidly changing world where work and leisure activities are increasingly transformed by technology. It is our intention to enable children to find, explore, analyse, exchange and present information as well as having the skills to manipulate, develop and interpret different forms of technology in an ever-changing world.

In such a fast-moving curriculum, we are constantly looking at new ways of delivering relevant and exciting activities, while still delivering the fundamental skills needed for computing. Using technology safely and responsibly is a main priority and ensuring all pupils are able to use the internet and equipment appropriately is of paramount importance. We encourage our pupils to make links across the curriculum, the world and our local community, to reflect on their own experiences, which are designed in our curriculum, allowing horizontal and vertical links with previous year groups.

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 level suitable for the future workplace and as active participants in a digital world.

Our ambitious computing curriculum is now structured in 3 areas that allow all pupils from EY to year 6 to progress through different categories of knowledge. These are: Digital Literacy, Information Technology and Computer Science.

Each area of the curriculum gives pupils time to practice and rehearse the knowledge needed to be proficient at computing and be ready for the next age of learning.

**Aims**

The curriculum 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.

**Implementation**

**Organisation**

The **Subject Leader Audit for Computing** outlines the three pillars of Computing: Digital Literacy; Information Technology; and Computer Science into units of study across each academic year.

The **Termly Progression Document for Computing** details the procedural and declarative knowledge that will be taught in each phase, each term.

* Early Years objectives have been written in line with the **Early Years Framework**, with most of the Computing objectives relating to the ‘Understanding the World’ Area of Learning and Development.
* The objectives for Years One to Six cover the expectations of the **National Curriculum**.
* The Computing curriculum at Southcoates plans for opportunities to embed learning related to our Curriculum Drivers: Safe Behaviours, Positive Role Models and Awareness of the World.
* The progression of technical vocabulary relating to Computing is also planned for on the **Termly Progression Document**.
* Using the objectives from the Termly Progression Document for Computing and each phase’s Medium Term Plans, **Short Term Planning** is conducted by teachers to plan the sequence of lessons that will enable the high quality teaching of the objectives.

The **Substantive Knowledge Progression Document for Computing** outlines how progression is planned for, with opportunities to recap and build on prior learning.

**Impact**

Children will be confident users of technology, able to use it to accomplish a wide variety of goals, both in school and at home.

Children will have a secure and comprehensive knowledge of the implications of technology and digital systems which is important in our ever-evolving society.

Children will be able to apply the British Values of democracy, tolerance, mutual respect, rule of law and liberty when using digital systems.

Children will be able to solve problems in computational terms, and have repeated practical experience of writing computer programs in order to solve such problems.

Children will be able to evaluate and apply information technology, including new or unfamiliar technologies, analytically to solve problems

Children will learn how to be responsible, competent, confident and creative users of information and communication technology.

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| **Pedagogy** |

**Rationale**

The SPA Curriculum aims to provide our children with teaching, opportunities and experiences that will help them to flourish and grow into successful citizens who will make positive contributions to the world around them. Underpinning our curriculum are our Curriculum Drivers:

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| Safe Behaviours | E-Safety is a fundamental component of our curriculum and our Computing ethos. Children become safe and responsible internet users and respectful and positive towards other users. Children know the difference between what should and shouldn’t happen and gain sound understandings of how to handle unsafe incidents. |
| Positive Role Models | It is very important that the children value their learning. Teachers are committed to providing a positive and impacting experience for children in their studies of Computing. They will gain skills that could potential shape and forge their careers and provide them a modern means to express themselves and communicate effectively. |
| Awareness of the World | Computing is a fast-growing industry and an ever-evolving element of everyone’s day-to-day lives. It is a key element to many career paths and lines of work in today’s society and our Computing Curriculum aims to provide children with opportunities to develop applicable skills. These skills will help to enrich their lives both privately, socially and professionally. |

**Resources**

Children explore various apps and software suits on both Apple iPads and Windows laptops. They use these in a variety of ways:

* Programming games and software
* Image and video editing
* Publication software
* Internet search engines
* Emails
* Digital game development
* App development

**Opportunities to Revise, Repeat and Build on Prior Learning**

Our SPA Curriculum has been designed by Southcoates’ teachers to ensure that the objectives progress as the children move through their years at Southcoates. Opportunities to revise, repeat and build on prior learning are built into our Long Term Plans, Medium Term Plans and Short Term Plans.

The specific progression of procedural and declarative objectives can be found in the Substantive Knowledge Progression Document for Computing.

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| **Assessment** |

**Assessment for Learning**

Ongoing assessment is carried out within lessons through questioning, discussion and observation to check the children’s understanding. Teachers monitor the application of newly learned skills. Teachers and pupils engage in focussed discussions about how to make progress, and ongoing assessment for learning influences the following teaching inputs and lesson design.

**Formative and Summative Assessment**

Early Years:

Termly Early Years assessments in relation to the Areas of Learning and Development outlined on the Early Years Framework are inputted on the Bromcom system. The code Y (Yes) or N (No) is inputted to indicate whether or not each child is on track to achieve the Early Learning Goal by the end of the year.

Years One to Six:

Formal teacher assessments for Years One to Six are conducted biannually at the following assessment points:

* Mid-year assessment: class teachers make an end of year prediction based on whether or not the child is on track to achieve the expected standard by the end of the year. (Assessments are based on each child’s attainment in relation to the end of phase objectives outlined on the Termly Progression documents and Medium Term Plans.)
* End of year assessment: class teachers make a final judgement to indicate whether the children are working towards, have achieved, or have exceeded the expected standard. These grades are reported to parents on the mid-year Annual Reports, and the End of Year Reports. The following codes are inputted onto the Foundation Subject Assessment Tracker to record the level at which each child is working:

WTS – Working Towards the Expected Standard

EXS – At the Expected Standard

GDS – Greater Depth Standard

The children’s learning is assessed against end of **phase** expectations. The following assessment grid is used to show the judgements given in Years One, Three and Five in relation to the end of phase expectations:

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|  | End of Phase Standard |
| ETS | WTS | EXS | GDS |
| Y1 | WTS | EXS | GDS |  |
| Y2 |  | WTS | EXS | GDS |
| Y3 | WTS | EXS | GDS |  |
| Y4 |  | WTS | EXS | GDS |
| Y5 | WTS | EXS | GDS |  |
| Y6 |  | WTS | EXS | GDS |

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| **Culture** |

**Opportunities for All**

Southcoates Primary Academy is committed to the inclusion of all pupils, within the school curriculum and participation in all aspects of school life.

All pupils that are engaging in subject-specific study are taught age appropriate objectives as outlined on the ELT Computing Curriculum Overview. Teachers ensure that these objectives can be accessed by all pupils through the use of scaffolding, personalised teaching and additional support. Teachers adapt teaching methods to suit the needs of individual learners, and to remove barriers where possible, to give every child the opportunity to succeed and achieve.

Children who are confidently achieving age related expectations are challenged to deepen their learning by being given opportunities to apply their skills in a variety of situations, dependent on the task being undertaken.

**Fostering a Love of the Subject**

Southcoates Primary Academy highly values all subjects, and is committed to ensuring that every child has access to high quality experiences as well as an ambitious progressive and embedded curriculum.

To raise the profile of Computing, and to ensure that children understand the importance of the subject outside of the Computing Curriculum, the following opportunities and experiences are organised for our children:

* Digital Leaders are appointed in every classroom to support with the learning in Computing and to organise quizzes, competitions and to champion excellence in the subject.
* Visits to and visitors from areas of STEM in the workplace to raise aspirations of the children.
* ‘Un-plugged’ computing sessions (teaching Computer Science through engaging physical games and puzzles that use tangible media such as cards, string, crayons and physical movements) and ‘debugging’ challenges.

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| **Subject Monitoring and Improvement** |

**Subject Leadership**

* Computing is overseen by the Assessment and Standards Faculty. The Assessment and Standards Faculty meet every other week to discuss:
* Outcomes of monitoring.
* Additional whole school opportunities and experiences to enrich learning and personal development.
* CPD requirements.
* Assessment.
* Curriculum development.
* The Subject Leader for Computing and the Subject Leader for Science work in partnership to complete the monitoring cycle and to work on curriculum development and improvement for both subjects.

**Subject Triangulation**

The curriculum, teaching and learning and outcomes of Computing are monitored, developed and improved using an annual cycle of monitoring: subject triangulation.

Each year, a cycle of teaching and learning lesson observations, pupil voice interviews, work scrutinies, curriculum coverage/planning reviews and assessment analysis informs the subject leader of the quality of education for design and technology.

Enquiry Review Meeting to feedback findings and discuss areas for improvement.

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**Subject Improvement**

Subject leaders feed back findings from the Subject Triangulation monitoring cycle to all teachers at the termly Enquiry Review Meetings. In these meetings, strengths, areas for improvement and CPD requirements are discussed. Good practice is shared to help to continually raise the standard of teaching and learning. The Enquiry Review Meetings are attended by all Teachers, Subject Leaders and members of the Senior Leadership Team, enabling constructive and productive conversations that aid continuous reflection, development and improvement of the curriculum.

**CPD**

* Subject Leaders are given opportunities to attend CPD events run by The Enquire Learning Trust.
* Subject Leaders are able to request staff meeting slots to upskill teachers and to deliver updates and training.
* Teachers and Subject Leaders are encouraged to work together to discuss areas for improvement, and to identify areas where extra CPD may be required.
* Subject Leaders attend local Subject Leader Network Meetings to network with Subject Leaders from local schools.