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COMPUTING POLICY

RATIONALE

Computers are part of everyday life. For most of us, technology is essential to our lives, at home and at work. 'Computational thinking' is a skill that children must be taught if they are to be ready for the workplace and able to participate effectively in this digital world. At Norwood, our Computing curriculum is intended to develop children's knowledge and understanding of Computer Science, Information Technology and Digital Literacy.

AIMS AND OBJECTIVES

- To provide all children with continuity and progression in all of the strands of the Computing National Curriculum.
- To model and educate our pupils on how to use technology positively, responsibly and safely.
- To enable all children to be confident, competent and independent users of technology.
- To ensure children are capable of finding, selecting and using information; for example, searching the Internet or databases.
- To experience the use of technology as a tool for learning across the curriculum.
- To ensure children can apply their digital skills and knowledge to their learning in other areas of the curriculum.
- To ensure that children develop an appreciation of the use of technology in the context of the wider world and the issues related to security, personal safety and confidentiality.
- To understand how and when technology can be used effectively, and when it may be more appropriate to complete a task using different methods.

TEACHING AND LEARNING APPROACHES

At Norwood, one of the main aims of our Computing Curriculum is to equip our children with the skills necessary to use technology to become independent learners. Therefore, the teaching style that we adopt is active and practical, drawing upon real life contexts and tangible situations. Our Computing curriculum has two elements. We teach discrete Computing lessons, which give children direct instruction on how to use hardware or software for a particular purpose.

We also place strong emphasis on teaching children how to use technology to enhance learning

in other curriculum areas. This could be using the internet to research a particular topic, or using presentation software to share their learning with other children. We strongly believe that by using technology effectively in other curriculum subjects, it can engage and motivate learners and therefore develop children's knowledge and understanding.

PLANNING

In Reception, and at Key Stage 1 and 2 we adopt a topic approach to the foundation subjects. The planning ensures that, in addition to meeting the National Curriculum requirements, there are frequent and regular opportunities to enhance learning through cross curricular teaching. Computing has strong links across the curriculum and is used to enhance learning whenever possible. Years 3 to 6 have regular access to Chromebooks (currently 25 within each Year Group, 50 across the phase). Children in Reception and Year 1 have access to a set of 24 Android Tablets, which they use within their continuous provision. Years 1 to 6 have 120 iPads to use across the curriculum.

Computing is also taught as a discrete subject. It is planned for in two stages and meets the National Curriculum requirements. The long-term planning shows which Computing unit is taught in each term. The short-term planning has clear objectives for each session of learning. The lesson objectives are differentiated and the planning also identifies the resources, activities and assessment opportunities of each session.

Each session, pupils evaluate personal achievement in relation to lesson objectives. Previously learned skills and knowledge are revised during 'REWIND' activities completed in subsequent lessons. At Norwood, computing planning supports learning across subjects and provides opportunities for students to develop and apply skills in context. It is our intention that, in addition to discrete computing lessons, all year groups have the opportunity to use a range of hardware and software throughout the wider curriculum. This approach improves pupils' motivation and engagement and offers purpose for learning whilst embedding new skills.

The implementation of the curriculum promotes balanced coverage of all three strands of computing: Computer Science; Information Technology and Digital Literacy. During each year group pupils gain experience in each strand, with the complexity of skills increasing as they progress through school. For example, pupils in Key Stage 1 learn what an algorithm is, this leads to the design stage of programming in Key Stage 2: pupils design, write and debug programs and develop skills to explain the rationale behind their algorithm.

Internet Safety is taught regularly, at least once every half term. We deliver this using picture books, which are accessible to all and cover a wide range of issues such as cyber-bullying,

protecting passwords, catfishing and digital footprints. Internet Safety is evident throughout the Curriculum in our RHE work - which we deliver through 1Decision on a weekly basis.

ASSESSMENT AND RECORDING

Pupils' progress is assessed and monitored throughout the year through normal teacher marking (when appropriate), planning and observation. Each individual unit in the Computing Curriculum has a Foundation Assessments grid, which is used throughout the unit to inform progress. Pupils' Computing work is marked by the teacher in line with the School's Marking policy. Each unit of work for Computing has clear learning objectives to assess against. Furthermore, parents are informed of their child's progress at termly parents' evenings and via the annual reports which are sent home in the summer term. Teachers will input student data once a year in Summer term. Subject leaders will analyse this data , ascertaining strengths and weaknesses.

RESOURCES

At Norwood we regularly review the Computing resources we have available that are used to enhance pupils' knowledge and learning within Computing. We regularly update software to ensure the children have access to up-to-date resources and technologies. Computing resources available providing enhanced access to technology include: Chromebooks, iPads and physical computing resources such as Lego WeDo kits, Spheros and Micro:bits for KS2; and Coding Critters and Code and Go Mice for EYFS and KS1.

We recognise the importance of how online resources can be used to enhance learning and have ensured there is reasonable provision of technology available at all times for each year group. Every child is enrolled to take part in the 'Hour of Code' on code.org in December. This can also be accessed freely at home. Every child in KS2 is provided with a Google for Education account. Providing access to the full Google Workspace suite – including Cloud Storage, e-mail facilities, Document, Presentation and Spreadsheet software.

TIME ALLOCATION

The 2014 National Curriculum has no suggested time allocations for each subject. At Norwood Computing will be used to enhance the learning and enjoyment in all subjects. Norwood is committed to ensuring children leave primary school with secure knowledge of computing and have the skills to use technology as an effective tool for learning in all subjects. Therefore, Computing is taught, fortnightly, as a discrete subject with each year group completing four to six units of work a year. Technology is also used as a tool to support learning across the curriculum.

EQUAL OPPORTUNITIES AND INCLUSION

All children will be provided with equal access to the Computing curriculum. We aim to provide

suitable learning opportunities regardless of gender, ethnicity or home background and according to their individual abilities.

SPECIAL EDUCATIONAL NEEDS/GIFTED, ABLE AND TALENTED

Differentiation in terms of learning objectives, tasks, teaching methods and resources are planned for pupils with SEN. All pupils have access to materials and opportunities that are suitable to their specific needs. Computing is a subject where children can often excel, especially if it is a subject that they are passionate about. For this reason, many planned activities offer an open-ended level of challenge, all children are encouraged to stretch themselves. Where possible, apps and websites used in class are also accessible at home, promoting home learning. This allows children that are Gifted and Talented in the subject to extend their learning further.

CROSS-CURRICULAR LINKS

Computing contributes significantly to the teaching of other curriculum areas in our school. It actively promotes skills such as:

- Encouraging children to become independent learners; developing their own lines of enquiry, using the internet and e-books effectively for research.
- Developing teamwork skills; working with partners or small groups to create ebooks, presentations, games and problem-solving activities.
- Developing Speaking and Listening skills; creating presentations, videos, podcasts, etc. that can be shared with others.