Computing Policy

Rationale

Computing prepares pupils to participate in a rapidly changing world in which work and other activities are increasingly transformed by access to varied and developing technology. Pupils use digital tools to find, explore, analyse, exchange and present information responsibly, creatively and with discernment. They learn how to employ digital devices to enable rapid access to ideas and experiences from a wide range of people, communities and cultures. Increased capability in the use of digital devices promotes initiative and independent learning, with pupils being able to make informed judgements about when and where to use information technology to best effect, and to consider its implications for home and work as well as the future.

Compliance Statement

We at St. Thomas' agree to follow the National Curriculum 2014 guidelines.

We also support the vision statement in 'Every Learner' (Essex LA):

"In Essex, every learner is entitled to a curriculum rich and varied, challenging and inspiring, which enables every individual to fulfil her or his potential to the highest possible standard; so that all, for the benefit of all, are able to shape their destinies and create a better world."

In line with Ofsted's 'Safe use of new technologies' document we also agree to:

- audit the training needs of all staff and provide training to improve their knowledge of and expertise in the safe and appropriate use of new technologies

- work closely with all families to help them ensure that their children use new technologies safely and responsibly both at home and at school

- use pupils' and families' views more often to develop e-safety strategies

- manage the transition from locked down systems to more managed systems to help pupils understand how to manage risk; to provide them with richer learning experiences; and to bridge the gap between systems at school and the more open systems outside school

- provide an age-related, comprehensive curriculum for e-safety which enables pupils to become safe and responsible users of new technologies

- work with their partners and other providers to ensure that pupils who receive part of their education away from school are e-safe

- systematically review and develop their e-safety procedures, including training, to ensure that they have a positive impact on pupils' knowledge and understanding.

Organisation

At St. Thomas' we operate a two year timetable within the Lower School (Years 3 and 4), and within the Upper School (Years 5 and 6). Between 45 minutes and 1 hour per week is allocated to discrete Computing lessons, and this is timetabled in the afternoons ensuring access to the Computing Suite. Computing is usually taught as a separate subject during these times, but the sessions are also used for other subjects when the teacher can see that information technology will facilitate the learning objective of the lesson. In the mornings the Computing Suite is timetabled for the teaching of mathematics and English. Each teacher is given one 30 minute session every week for maths and one hour long session every three weeks for English.

There are also five pupil computers in every main classroom and four within the support rooms that are for use at any point during any lesson as directed by the teacher. Children also have access to Laptops within the classroom, sharing a bank of 16 laptops between year groups.

Computing is seen as a subject and a resource; we recognise the need to teach key skills, but also understand the role it plays in accessing higher order learning in other subjects.

Teaching and Learning

The Key Stage Two programme of study will be taught in order for children to learn the knowledge, skills and understanding that pupils of different abilities and levels of maturity are expected to have by the end of this key stage.

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A range of teaching and learning strategies will be used to develop pupils' knowledge, skills and enthusiasm. Progression is built into the scheme and many units build upon skills acquired in earlier work. As Years 3&4 and 5&6 are grouped together it is important that the level of skill should be higher in Years 4 & 6 so that progression is maintained. Pupils will be taught as a whole class and in small groups. In many lessons some individual intervention may also be used where appropriate (see Scheme of Work).

The Scheme of Work is underpinned by assumptions about the aims and purposes of teaching Computing at Key Stage 2, which also underpin the National Curriculum objectives for Computing. 'These are that Computing should offer opportunities for children to:

- design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts
- use sequence, selection, and repetition in programs; work with variables and various forms of input and output
- use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs
- understand computer networks including the internet; how they can provide multiple services, such as the world wide web; and the opportunities they offer for communication and collaboration
- 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 (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information
- use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact.

(National Curriculum for Computing 2014)

Each lesson should be structured to have clear objectives which are shared with the pupils. Often the lesson will include mini plenaries which will help assess teaching and learning, inform future planning and encourage the pupils to reflect on or share what they have learnt. Work is usually saved, sometimes printed and displayed or used as part of a project. Work may be taken home.

Special Educational Needs, Equal Opportunities and Differentiation

Computing offers opportunities for every pupil regardless of gender, cultural, intellectual or social differences. We aim to make appropriate provision for pupils identified as having special educational needs (SEND). Indeed, Computing is increasingly used as an important aid for those children with SEND (e.g. helping with writing tasks). However, the most effective teaching in the classroom for children with special educational needs is the same as for all children; that is teaching which is relevant and will encourage, interest and motivate them. There are many ways in which the work could be adapted to meet the needs of the full ability range. For example:

- ❖ Varying input
- ❖ Changing content or even the task
- ❖ Availability of resources
- ❖ Grouping pupils
- ❖ Support from LSAs, the class teacher or other adults
- ❖ Response/ Outcome

Disability Equality Scheme

At St Thomas of Canterbury Church of England Junior School we recognise our duties and responsibilities under the Disability Discrimination Act as outlined in our Disability Equality Scheme and Action Plan. (December 2007) It is our aim that through specific and accurate planning, resource allocation, differentiated teaching and use of adult intervention and support (where necessary), that every child, irrespective of disability, will have full access to the curriculum and feel and be enabled to participate actively in developing to their full potential their skills, knowledge and understanding. We will ensure that all 'reasonable adjustments' are made to help both children and adults with identified special needs and disabilities to participate in the Computing curriculum.

Learning Across the Curriculum

Key Skills

As well as making its own distinctive contribution to the primary curriculum, Computing contributes to other subject areas. Explicit links are made through the Scheme of Work to other subject areas; similarly, other Schemes of Work make links regarding how Computing is used. All curriculum leaders recognise the need to include digital devices as a tool for learning and resources are regularly added to the school network. The weekly planning meetings offer staff opportunities to discuss how Computing may be used.

Personal, Social and Health Education and Citizenship

The Computing Scheme of Work provides opportunities to promote PSHE and Citizenship in a number of ways. These include the opportunity to:

- contribute to debate by working with others;
- gather information and make choices by using the Internet and e-mail with their peers and others;
- teaching responsible use of the internet
- learn social skills and a sense of social and moral responsibility, for example through collaborative writing.

Assessment, Recording and Reporting

Assessment will be ongoing and will include observation, questioning and marking of work. Weeks at the end of each unit are set aside to assess the children's skills progression against the key skills taught in a unit of work. Assessment will be in line with the whole school assessment policy. Evidence of coverage and standards will be retained by the Computing Curriculum Subject Leader. In many instances it will be preferable to keep work simply saved on the network rather than print out. Curriculum coverage and individual attainment will be reported to parents, colleagues and schools in the next phase. Alongside teacher assessments, children should also take an active role in evaluating their own learning and progression.

We also use information technology as a staff to monitor and record assessment information.

Health and Safety

Through the leadership of the Headteacher and Senior Leadership (including Computing Leader), alongside the governing body, the school aims to provide outstanding e-safety practise, as outlined by Ofsted criteria for schools, 2014:

In the context of an inspection, e-safety may be described as the school's ability to protect and educate pupils and staff in their use of technology and to have the appropriate mechanisms to intervene and support any incident where appropriate.

The breadth of issues classified within e-safety is considerable, but can be categorised into three areas of risk:

- **Content:** *being exposed to illegal, inappropriate or harmful material*
- **Contact:** *being subjected to harmful online interaction with other users*
- **Conduct:** *personal online behaviour that increases the likelihood of, or causes, harm.*

(Ofsted: Inspecting e-safety, 2014)

Training and awareness is an important mechanism for the school to deliver our e-safety provision. CEOP certified trainers (Brentwood Extended Services) will deliver e-safety specific training to staff, pupils and parents on a bi-annual basis, with the Computing Subject Leader obtaining a higher level of training (obtained in July 2014). Pupils will be taught aspects of e-safety for three weeks in every term during their time at the school.

Display

Display is an important means of achieving quality in work. It is also a means of promoting communication and sense of achievement. Displays around the school can convey the message that the children and staff are confident and competent with Computing. We also have specific Upper and Lower School display boards in the Computing Suite to promote the current topic that the different year groups are working on.

The role of the Curriculum Subject Leader

The Curriculum Subject Leader will monitor, advise, promote confidence and model good practice amongst staff and pupils. They will also evaluate, monitor and update the Scheme and its resources. The Policy and

Scheme of Work are regularly reviewed. They also make most of the purchasing decisions in consultation with the school's Senior Leadership Team.

The Computing Technician oversees technical issues and troubleshooting. A teaching assistant also helps to maintain printers and cleans all of the computers. Therefore, if a teacher has a teaching and learning question they would probably ask the Curriculum Subject Leader; if it was a technical query they would approach either the Computing Technician or the relevant teaching assistant and if neither were available they would note the query on the Computing issues board in the small staffroom.

Monitoring and Evaluation

The Curriculum Subject Leader, the Headteacher and Deputy Headteacher monitor and evaluate the Computing curriculum throughout the year.

Work should be monitored to ensure that the policy is being carried out in each class across the school. The Computing Subject Leader will carry out these monitoring exercises at least once a term. (see Subject Leader Yearly Planner)

Various areas are monitored including: the quality of teaching; the learning environment; the implementation of the Computing curriculum policy; planning, recording and reporting; analysis of assessment; progression in learning; continuity; perceptions of children; the standards of achievement and the use of resources.

Resources

The Computing Curriculum Subject Leader will ensure that staff and pupils have access to and experience of software and hardware that excite and facilitate. The resources at St. Thomas' are constantly under review, with an audit each year and a long term plan, which ensures regular updates are budgeted for as part of the School Development Plan.

Currently the school boasts a fast and reliable network of 106 PCs; 32 of which are in the custom built Computing suite. All classteachers have a school laptop and have a PC in their classroom. The classroom PCs are all connected to Interactive Smart Boards. The excellent provision of Computing throughout the school means that there is a 3:1 pupil to PC ratio. The school also has 64 Laptops spread across all year groups of the school. Such high levels of access afford consistent opportunities for blended learning (using devices alongside other types of learning). Each classroom also has a high spec digital camera. The school also owns two digital flip cameras, 16 digital Dictaphones, four visualisers and five printers, one of which is colour. All of these resources can be accessed by staff and children at any time.

In the event of any equipment being damaged or lost, staff are advised to report the loss to the Computing technician as soon as possible. Damaged equipment will be repaired by a suitably qualified person.

Role of the Governing Body

Every governor takes a special interest in at least one curriculum area or focus in the school. At present there is a named governor for Computing who supports the Curriculum Subject Leader and keeps up to date with policies, strategies, procedures, etc. through regular visits. These visits are used to become familiar with and monitor Computing teaching, observe lessons first hand and to promote levels of accountability, challenge and support. Following a governor visit, a written report is submitted to the Computing Subject Leader/Headteacher and discussed at a full governing body meeting.

Review

The policy will be reviewed at least every 3 years, or as new guidance becomes available to schools from the Local Authority (LA) or Department of Education (DfE).

Policy reviewed: May 2015

Next policy review date: May 2018

References

National Curriculum Programme of Study for Computing, 2014

https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/239033/PRIMARY_national_curriculum_-_Computing.pdf

Ofsted: Inspecting e-safety

http://www.slideshare.net/Ofstednews/inspecting-esafety-in-schools

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