St Thomas of Canterbury Catholic Primary School

Where every child is special

Computing Policy

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The **CHILD**

The whole **CHILD**

Nothing but the CHILD

OUR SHARED VISION

Every child at St Thomas of Canterbury is special and will achieve their full potential academically, socially, spiritually and emotionally through the provision of a loving community and rich and varied learning opportunities and the highest quality teaching and learning.

Every staff member at St Thomas of Canterbury will feel valued and enabled to provide the opportunities that we want for our children and to do so as part of a loving community which has the highest expectations of and for all.

Every Governor at St Thomas of Canterbury will feel valued and enabled to act as a critical friend to the School and to be accountable for the School's strategy. They will play a visible role supporting all children, their parents and staff at School and in the wider community, to provide the best environment possible for learning and spiritual growth.

OUR MISSION STATEMENT

God's love is at the heart of our Catholic School family.
We show this in our respect, kindness and love for others and by treating other people as we wish to be treated ourselves.
We will encourage everyone to be the best that we can be.

OUR AIMS

- To guide our children to grow in the love of God and build relationships that will enable them to make a positive contribution to the School and society.
- To develop an exciting, challenging and creative curriculum that produces confident and successful learners who are the best that they can be.
- To develop high quality learning that enables every child to flourish, to discover their talents and be lifelong learners.
- To establish a teaching and learning environment that encourages everyone to enjoy, to achieve, to be inclusive, to be healthy, and to stay safe.
- To nurture a strong partnership between home and School.
- To have respect and understanding for our School, our community and our world, helping our children to become responsible citizens and good role models.

OUR GOLDEN RULE
We treat others as we would like to be treated

Introduction

This document is a statement of the aims, principles and strategies for the teaching and learning of Computing at St. Thomas of Canterbury Catholic Primary School.

What is Computing?

Computing comprises a variety of systems that handle electronically retrievable information. Computers are the most obvious of these but also includes programmable robots, microphones, calculators, and digital cameras. Computing is an integral part of the whole curriculum and as such there are two areas: the skills and the application. The latter is in the majority of cases experienced through the complete curriculum. From September 2014 Computing replaced the subject Information and Communications Technology (ICT). The new curriculum is divided into three main areas of teaching: Computer Science, Digital Literacy and Information Technology. Consequently there is now a greater emphasis of the teaching of computer science looking at coding and how computers respond to our programming.

The importance of Computing

'A high-quality computing education equips pupils to use computational thinking and creativity to understand and change the world. Computing has deep links with mathematics, science, and design and technology, and provides insights into both natural and artificial systems. 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'. Computing Curriculum 2014.

Aims

The national curriculum for Computing aims to ensure that all pupils:
  o   can understand and apply the fundamental principles and concepts of computer science, including abstraction, logic, algorithms and data representation
  o   can analyse problems in computational terms, and have repeated practical experience of writing computer programs in order to solve such problems
  o   can evaluate and apply information technology, including new or unfamiliar technologies, analytically to solve problems
  o   are responsible, competent, confident and creative users of information and communication technology.

Aims of our school

  o   To enable each child to experience Computing across the curriculum as part of a whole school approach.
  o   To meet the requirements of the National Curriculum — for Computing at Key Stages One and Two and in the Technology aspect in the Early Years Foundation Stage.
  o   To encourage the pupils to enjoy Computing and tackle all applications with confidence and a sense of achievement
  o   To integrate Computing effectively within the classroom to the benefit of all pupils.
  o   To ensure that equal opportunity is given to all pupils to develop their capabilities in Computing.
  o   To use information sources and Computing tools to solve problems and develop computational thinking and support learning in a variety of contexts.

o   To understand the implications of Computing for working life and society.

Principles of the Teaching and Learning of Computing

Computing is treated as a core subject at St. Thomas of Canterbury School. Pupils should be taught to effectively use tools and information sources to analyse, process and present information, and to develop programming and computer science skills. An Online Safety lesson is taught each half term and the pupils experience all aspects of Computer Science, Digital Literacy and Information Technology each term.

Computing is important because:
o   It is an integral part of our daily lives and we are preparing the pupils for their future
o   Its use is widespread in the modern technological world and is likely to continue to grow
o   It is an important medium for learning and study at all educational levels.

Computing is seen as a cross-curricular subject in the National Curriculum and indications for its use are given in other subject areas.

Strategies for the Teaching of Computing

Computing is taught as a discrete subject (once a week in the dedicated Computing Suite) but is also used to support and enrich the teaching of other subject areas. The emphasis in our teaching with Computing is on the use of computers as a support to learning thus:
From Foundation Stage all pupils are made familiar with basic aspects of using a computer including printing and efficient use of keyboard and mouse
Most activities in Computing are allied to other work carried out away from the computer
As pupils' progress through the school they are given increasing control of their use of ICT, gaining growing independence in their understanding and application of Computing.

The predominant mode of working in Computing is individually with each child having access to their own computer in the Computing Suite, although learning partner and small groups work may be used where appropriate.

The major part of the pupils' learning comes through hands on experience although group or class discussion may be used to gather data, set challenges and analyse results.
The ICT Technician may also support teaching in Computing, and may assist with:

o   Loading and saving work, mainly in EYFS and KS1
o   The reading involved in some early years activities
o   Helping pupils to edit or improve their work
o   Sorting out problems caused by the misuse of a program. The majority of pupils in upper KS2 should be able to use ICT effectively with little or no assistance.

Equal Opportunities

The computer use is carefully managed so all pupils are given equal opportunities. Computing use is not seen as a stick or a carrot (to be withdrawn as a punishment or offered as a reward for good work or behaviour) but is offered as an entitlement for all pupils.

All pupils, including pupils for whom English is an additional language, gifted pupils and those with special educational needs should be able to benefit from their Computing education. We aim to offer all pupils within the school an appropriate yet challenging experience of Computing. The individual pupil's needs and ability should determine the appropriateness of the task, but all pupils should have equal opportunity to develop their skills in this curriculum area.

Quality First Teaching

Pupils with special needs have the same Computing entitlement as all other pupils and are offered the same curriculum. As with all other subject areas, Quality First Strategies are also implemented during Computing lessons.

However, in addition, particular applications of ICT are used for pupils with difficulties in learning, who need to be motivated to practice basic skills regularly and intensively, and thus benefit from use of programs in which skills practice is set in the context of a motivating game.

Pupils who have difficulties in language may use Word Processing more frequently for handwriting to improve the appearance and accuracy of work and to provide added motivation. Laptops and/or a spellchecker may be used for pupils with a particular learning difficulty. The Inclusion Leader will decide these needs after discussions with the class teacher and where appropriate, outside agencies. Pupils of high ability may be extended through the use of programs, which offer challenges and opportunities for investigation.

Progression and Continuity

Planning for the use of Computing is a process in which all teachers are involved, wherein
Suggestions for Computing activities are developed by the class teacher in collaboration with the Computing Leader – With the introduction of the new curriculum in 2014 the Computing Leader worked with local schools to produce a Computer Science Scheme of Work which has been shared and implemented by all staff and is continually reviewed and updated
Year group planning meetings are used to discuss the use being made of ICT across the curriculum and ensure consistency of approach and standards
ICT is integrated into all curriculum areas as well as discrete Computing learning
In conjunction with the Assessment Leader, all year groups have a Computing Learning Journey which both the pupils and teacher use to inform ongoing assessments of Computing that clearly show progression throughout the school

Recording, Reporting and Marking

Formative assessment is used to guide the progress of individual pupils in Computing. It involves identifying each child's progress, determining what each child has learnt and therefore what help is required to take the child on to the next stage in his/her learning. Formative assessment is mostly carried out informally by teachers and pupils in line with the school's assessment for learning policy.

An individual Computing Skills Diary for each lesson is kept in pupils' books and a class tracking is recorded using the schools assessment system, O-track. This will ensure that individual pupils do not bypass essential aspects of the subject. Information about the child is gathered throughout the year through observation, informal discussion with the child, and occasional specific assessment tasks. As previously mentioned both the pupils and teacher use the Computing Learning Journey to track their progress throughout the year.

Pupils are encouraged to carry out regular self and peer assessment set against the success criteria for the task. Teacher feedback to pupils about their progress in Computing is usually done whilst a task is being carried out, through discussion between the pupil and teacher.

Reporting to parents is done on a termly basis through parent consultations and annually through a written report. Reporting on Computing will focus on their experience of using different programs and the child's ability to use the computer with confidence.

Health and Safety

Health and Safety issues in Computing include taking care with:
- The use of the Computing suite
- Setting up and moving equipment including the sound system and laptop trolley
- Establishing appropriate working conditions including the correct height for chairs at workstations, and limited time spent in front of beam from data projectors
- General electrical safety
- Using the internet appropriately and safely also recognising the impact cyber bullying can have on an individual

Teachers should be aware of the correct connections between the various parts of their computer.

The class teachers should report any problems they are unable to remedy to the Computing Leader and/or technician, or to the head teacher.

Role of the Computing Leader

The Computing Leader's role is to:
- Take the lead in policy development and the integration of Computing into schemes of work designed to ensure progression and continuity in pupils' experience throughout the school.
- Support colleagues in their efforts to include Computing in their development of detailed work plans, in their implementation of those schemes of work and in assessment and record keeping activities.
- Monitor progress in Computing and advise the head teacher on action needed.
- Take responsibility for the purchase and organisation of resources for ICT.
- Disseminate information to colleagues as appropriate.
- Keep up to date with key developments in Computing county and nationwide
- Support staff training, especially with the computer science aspects of the new curriculum
- Work closely with the Online Safety Leader

Future Developments

As Computing is a fast developing subject, replacement and chip dating of equipment is essential in order to achieve the best possible results.

The main priorities for development in Computing within the school involve:
- To continue a programme of training for the staff to develop Computing skills focusing on the use of peripheral hardware across the curriculum, including training on programming and coding
- To develop teacher understanding of how to integrate Computing effectively across the curriculum
- To develop the use of Assessment for Learning (AfL) in the Computing Curriculum
- To continue to develop a Computing Curriculum that adopts the mastery approach and is challenging for all pupils

This policy of St Thomas of Canterbury School upholds the school's ethos and Mission Statement. It must be read in conjunction with and implemented in accordance to the school's policies for Health & Safety, Equal Opportunities, Inclusion, Safeguarding and Online Safety. Copies of these policies are available from the school website.