Computing Policy

St Cuthbert's Catholic Primary

Approved by:	Governing Body	**Date:**	April 2024
Last reviewed on:	July 2022		
Next review due by:	July 2025		

Contents

1. Introduction

You are unique, talented and loved by God

Every child has the right to an education. (Article 28 UNCRC)

Education must develop every child's personality, talents & abilities to the full. (Article 29 UNCRC)

This policy is written with consideration for the Gospel values of our Catholic school and for our ongoing commitment to the Rights of the Child which underpins our day-to-day practice and ethos. Although direct reference to these considerations are not continuously made, the policy has been written with full awareness of our responsibility and commitment to the faith and rights of our pupils.
As part of the Bishop Chadwick Catholic Education Trust (BCCET), we are committed to upholding the key values of our family of schools in the teaching of mathematics:

- **Excellence**: mathematics is planned, taught and monitored to enable staff and pupils to achieve excellence.
- **Respect**: all of our school family are created in the image of Christ and are treated with equity and fairness. We are committed to providing support, high expectations and challenge for our staff and pupils, no matter their starting point, to help them develop their mathematical ability to the full.
- **Community**: we work as a community to achieve our aims and teach our pupils the value of collaboration and teamwork through mathematics.
- **Gifts**: we support all staff and pupils to enable them to fulfil their potential.
- **Aspiration:** staff and pupils are supported to be the best they can be and we ensure the needs of every individual are met.
- **Celebration**: we recognise and celebrate success, resilience and positivity in mathematics.

Our pupils are all unique individuals with their own strengths, aptitudes, interests and dreams. As a Catholic school community, we support each child to make the most of every opportunity we offer.

2. Vision

At St. Cuthbert's our computing curriculum has been selected and adapted to ensure that our children: gain an understanding of programming; know how to purposefully use Information Technology; know how to be digitally confident, safe and responsible citizens and understand how computer networks work.
Computing is a rapidly evolving field and therefore our curriculum must naturally evolve to ensure our children are ready for their next stage of learning and for using computers and technology in the wider world. We consider the best resources annually and invest in hardware and software to best meet the needs of the pupils and the curriculum.

3. Purpose of study

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.

(DfE 2013)

4. Aims & Intent

The National Curriculum for computing (detailed below in *italics*) 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.*

At St Cuthbert's we also aim for our pupils to:

- understand the learning platforms they will need in the next stage of their education (MS Teams and Office)
- relate responsible use of technology to their work in RSE and PSHE as well as Catholic Social Teaching principles
- become independent learners and to work cooperatively with others
- appreciate and experience real life contexts in computing.

5. School Curriculum Intent

5.1 Early Years

From September 2021 the 'Technology' Strand was removed from 'Understanding the World' and was not replaced with any updated guidance. Computing and technology are still vitally important subjects to deliver to Reception children. A well-planned computing curriculum will ensure children enter Year 1 with a strong foundation of knowledge and gives children opportunities to problem solve. Technology is integrated into the lives of our young children and many of our pupils begin school with an understanding of touch screen technology associated with smart phones and tablets. We ensure that our children learn to be safe online and when using technology and that they meet new forms of technology including keyboards, mice and programmable devices. Children will have the opportunity to explore technology in a child-led way and make links to communication and language, mathematics and physical development.

We follow the Kapow scheme of work for computing which is enhanced through use of other programmes such as Purple Mash.

5.2 National Curriculum for Y1 to Y6

We follow the programmes of study as laid out by the National Curriculum:

Programmes of study for Years 1 to 6 can be found here.
We follow the Kapow scheme of work for computing which is enhanced through use of other programmes such as Purple Mash. We have selected this scheme of work for several reasons:

- Firstly, in the academic year 2023-4 and 2024-5 we are transitioning from a Google School where children access a Google suite of software using Chromebooks and tablets to a Microsoft School. We are in the process of developing and changing hardware and software in order to be inline with our Academy Trust and ensure endpoints for children in KS2 ensure they are secondary school ready. The Kapow scheme provides pupils AND staff with excellent modelling and professional development to make sure learning is of a high standard and our staff are upskilled.
- Secondly, the KAPOW curriculum is in line with Education for a Connected World. This guidance was created to help equip children for life in the digital world, including developing their understanding of appropriate online behaviour, copyright issues, being discerning consumers of online information and healthy use of technology. This underpins our work in PSHE / RSE through the Ten:Ten curriculum.
- Thirdly, in an ever changing technological world, the Kapow scheme is updated regularly ensuring that our curriculum does not stagnate.

5.3 Inclusion

Every pupil has the opportunity to study computing. For students with SEND, technology can provide excellent opportunities for accessing learning, for enabling communication and independence and for preparing them for their future lives and careers.

Dr. Miles Berry (NCCE) states that: *An inclusive approach to computing should ensure an appropriate balance between the foundation (computer science), application (information technology) and implication (digital literacy) elements of the curriculum. For some pupils with SEND, too great a focus on programming and other aspects of computer science at the expense of IT skills and online-safety may do little to prepare them for the practical needs of their subsequent study, employment, and adult life. Particular attention should be paid to ensuring that pupils who are more vulnerable because of SEND have a secure understanding of how to keep themselves safe, and of their responsibilities, when using the internet.* Source

We recognise the importance of adaptive teaching in computing. Pupils come to lessons with wide ranging experiences of technology and good adaptive teaching needs to take this into account. Adaptive teaching might look like scaffolds and repeated practice or using worked examples for some and opportunities for experimentation and exploration for others.

6. Implementation

6.1 Key areas of learning

In the National Curriculum Purpose of Study, the key areas of computer science, information technology and digital literacy are highlighted. The Kapow scheme is therefore organised into five key areas, creating a cyclical route whereby children can revisit and build on previous learning.

- Computer systems and networks
- Programming
- Creating media
- Data handling
- Online safety (this is also taught through our RSE / PSHE curriculum)

6.2 Timetabling and resources

- Pupils are taught computing for one hour each week using timetabled devices
- Pupils also have access to technology and software to support cross curricular learning or follow up work.
- Staying safe online and being good digital citizens is also taught through the RSE / PSHE curriculum and through Internet Safety Day each year

6.3 Classroom Environment

- Classes have displays that link to the online safety they are taught in that year group.
- There are no fixed computers for pupils to access in class; laptops and chromebooks are shared between classes. We have no computer suite.

6.4 Staff Development

Strong subject knowledge is vital for staff to be able to deliver a highly effective and robust computing curriculum. We are committed to the ongoing development of computing.

- Each year, we identify a focus area for improvement which is included in our School Improvement Plan.
- The Kapow scheme of learning includes teacher videos to develop subject knowledge and support ongoing CPD.
- We have links with other schools in our BCCET academy trust and with the IT team who provide staff development e.g. on the use of Teams and Office as part of our transition to a Trust-wide network.

7. Impact

Senior Leaders, computing lead, teachers & teaching assistants are all responsible for monitoring the impact of the computing curriculum to ensure pupils have a positive experience of computing, retain knowledge & apply their learning in their work.

- Teachers and Teaching Assistants use questioning, support and challenge effectively to gauge understanding in lessons and ensure the vast majority of pupils keep up
- At the end of each block of learning, pupils are assessed and teachers will make a judgement about any consolidation that needs to take place
- Timetabling includes additional time beyond the computing lesson to support pupils in applying their learning – this can include basic mouse and typing skills, logging in and password skills, navigating websites and creating media.
- Teaching & Learning is monitored through the Five Strand approach in line with BCCET which includes:
    a. Checking of planning by subject lead / SLT to ensure thorough and timely coverage
    b. Lesson observations
    c. Shared monitoring of work with opportunities for discussion and shared practice to monitor impact collectively
    d. Monitoring of assessment data
    e. Pupil Voice

8. Review

This policy links to

- Curriculum Policy
- Marking & Feedback Policy
- SEND Policy

This policy will be reviewed annually by:

- Computing co-ordinator
- SLT
- Link governor or whole governing body