The Good Shepherd Primary Catholic Voluntary Academy

Computing Policy

Mission Statement

Our mission is to develop our children with active and creative minds, a sense of understanding and compassion for others and the courage to act on their Catholic beliefs.

In our school community we celebrate our faith and we work together to achieve our personal potential by trying to live like Jesus and become the person that he wants us to be.

Ratified On:	**March 2021**
Review Date:	**March 2022**
Chair of Governors signature:	**Mrs R Burke**
Head Teacher's signature:	**Mrs M.H.B.Williams**

The Good Shepherd
Primary Catholic Academy
Our School • Our Community

'……with God all things
are possible.'

Matthew 19: 26

'Alan Turing gave us a mathematical model of digital computing that has completely withstood the test of time. He gave us a very, very clear description that was truly prophetic.' George Dyson

THE GOOD SHEPHERD PRIMARY CATHOLIC ACADEMY- COMPUTING POLICY

Introduction

The 2014 National Curriculum introduced a new subject: computing, which replaced ICT. It gives schools the chance to address the challenges and opportunities offered by the technologically rich world in which we live.

Computing is concerned with how computers and computer systems work and how they are designed and programmed. Pupils studying computing will gain an understanding of computational systems of all kinds, whether or not they include computers.

The Acceptable Use of ICT policy and the E-Safety policy are linked with this Computing policy.

Subject Structure

Within the National Curriculum there is a focus on computational thinking and creativity, as well as opportunities for creative work in programming and digital media.

There are three aspects of the computing curriculum: Computer Science (CS), Information Technology (IT) and Digital Literacy (DL).

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.

Aims

To develop the pupils' digital literacy in preparation for their place in the digital world and workplace.

To develop pupils' skills in using technology safely, respectfully and responsibly.

To provide opportunities to enhance learning in all subjects via the use of digital hardware and software.

Effective Teaching and Learning

- Each class throughout Key Stage 1 and Key Stage 2 will have a weekly timetabled session in the Computing Suite and / or with the class set of ipads. Foundation Stage have their own set of ipads, which can be used for discrete adult-led tasks and child-initiated continuous provision.

- IPads will also be available for use by any class or group of children on a weekly booking basis. There are a full class set of ipads for KS1 and KS2.

- Computing will be taught both as a discrete subject through the Purple Mash Computing scheme of work, and in a cross-curricular way, when opportunities present themselves.

- There are direct links between Computing and PSHE – Keeping Safe and Media Literacy & Digital Resilience. The PSHE objectives will be linked to the Computing curriculum during Anti-bullying week and Safer Internet Day each year.

- The Computer Suite PCs and iPads will be used to help pupils access the Computing curriculum, along with a range of other resources such as programmable toys and equipment for unplugged activities.

- The Computing subject leader and the Headteacher will continually monitor the resources required to deliver the Computing element of the National Curriculum.

Framework of the National Curriculum

	Key Stage 1	Key Stage 2
Computer Science	Understand what algorithms are; how they are implemented as programs on digital devices; and that programs execute by following precise and unambiguous instructions. Create and debug simple programs. Use logical reasoning to predict the behaviour of simple programs.	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. Appreciate how [search] results are selected and ranked.
Information Technology	Use technology purposefully to create, organise, store, manipulate and retrieve digital content.	Use search technologies effectively. 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.
Digital Literacy	Recognise common uses of information technology beyond school. Use technology safely and respectfully, keeping personal information private; identify where to go for help and support when they have concerns about content or contact on the internet or other online technologies.	Understand the opportunities [networks] offered for communication and collaboration. Be discerning in evaluating digital content. Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact.

The Foundation Stage

Within the Early Years Foundation Stage (EYFS) all children are provided with a broad, play-based experience of ICT in a range of contexts.
We follow the National Statutory Framework for EYFS in order to build each child's confidence to use technology purposefully, support their learning and meet the objectives set out in Development Matters and the Early Learning Goals. We teach the knowledge, skills and understanding detailed in these documents, as well as incorporating the Characteristics of Effective Learning.
These objectives are as follows:

- Know how to operate simple equipment, e.g. turn on a CD player and use a remote control.
- Show an interest in technological toys with knobs or pulleys, or real objects such as cameras or mobile phones.
- Show skill in making toys work by pressing parts or lifting flaps to achieve effects such as sound, movements or new images.
- Know that information can be retrieved from computers
- Complete a simple program on a computer.
- Use ICT hardware to interact with age-appropriate computer software.
- Recognise that a range of technology is used in places such as homes and schools.
- Select and use technology for particular purposes.

Pupils in the Foundation Stage will experience using technology indoors, outdoors and through role play, in both child-initiated and teacher-directed time. Within Foundation, ICT is not just about computers. Our Early Years learning environments provide ICT based on experiences in the real world. Children gain confidence, control and language skills through opportunities to 'paint' on the whiteboard, use programmable toys, take photographs or short videos using a camera or ipad, having everyday technology in the role-play area and having access to a CD player to listen to both stories and music. Children in Foundation will also have regular opportunities to use the class set of i-pads in order to use age appropriate apps.

Racial Equality & Equal Opportunities Statement

All children have equal access and inclusive rights to the Computing curriculum regardless of their age, gender, race, ethnicity, religion, belief, disability or ability. Good Shepherd Primary Catholic Academy is committed to creating a Christian climate which will enable everyone to work free from racial intimidation and harassment and to achieve their full potential. I-pads and computers are used to enhance learning and access to the curriculum for all SEND children.

Health and Safety, Safeguarding

Staff and pupils should avoid standing directly in front of the whiteboard projector. The projector beam should not be looked at directly.
All iPads will be replaced into the charging boxes by teaching staff or trained pupils in KS2.
Regular E-Safety lessons will be carried out: at least one per term.
Yearly E-Safety meetings will be held for parents.
School will take part in initiatives such as 'Safer Internet Day' and opportunities will be taken to welcome training groups into school to help deliver E-Safety training, e.g. NSPCC and representatives from CEOP.

Assessment

Assessment of children's work in Computing is ongoing. Achievement levels (expected/ emerging/ exceeding) are recorded on a termly basis against assessment criteria from the Purple Mash scheme of work.