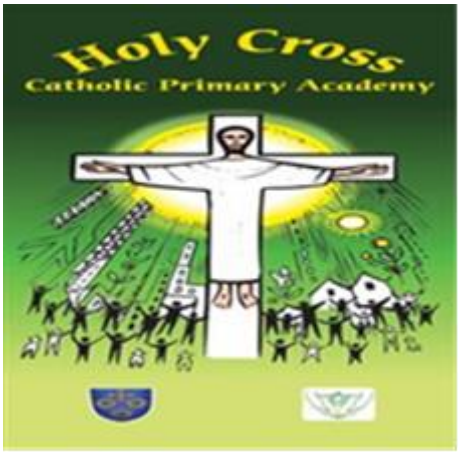

Jesus is the centre of our lives,

Our learning and friendships.

In a safe, happy and caring community

Where all are welcome.

HOLY CROSS CATHOLIC PRIMARY ACADEMY

COMPUTING POLICY JUNE 2022

REVIEW JUNE 2024

Introduction

A high-quality computing education equips children 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 children 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, children are equipped to use information technology to create programs, systems and a range of content. Computing also ensures that children 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.

What do we understand by the term Computing?

We interpret the term 'Computing' to include the use of computers, tablets, cameras and all such digital technology that can be used to acquire, organise, store, manipulate, interpret, communicate and present information.

Aims

At Holy Cross, the purpose of Computing is for all children to be confident digital citizens who have the **knowledge**, **skills**, and **understanding** to use technology **safely**, **creatively** and **effectively**.

Our curriculum for computing aims to ensure that all children:

- 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

Curriculum content

There are three main strands of the Computing curriculum: information technology, digital literacy and computer science.

- **Information technology** is about the use of computers for functional purposes, such as collecting and presenting information, or using search technology.

- **Digital literacy** is about the safe and responsible use of technology, including recognising its advantages for collaboration or communication.

- **Computer science** will introduce children of all ages to understanding how computers and networks work. It will also give all children the opportunity to learn basic computer programming.

Online Relationships

Today's children are growing up in an increasingly complex world and living their lives seamlessly, on and offline. In this environment, children need to know how to be safe and healthy. We include regular teaching of e-safety as well as e-safety enrichment days. This ensures that children feel confident when using computers and the Internet, and know what to do if they come across something either inappropriate or uncomfortable.

The Computing curriculum complements Relationships Education and through the Computing curriculum, the following will be taught:

• That people sometimes behave differently online, including by pretending to be someone they are not.

• That the same principles apply to online relationships as to face-to face relationships, including the importance of respect for others online including when we are anonymous.

• The rules and principles for keeping safe online, how to recognise risks, harmful content and contact, and how to report them.

• How to critically consider their online friendships and sources of information including awareness of the risks associated with people they have never met.

• How information and data is shared and used online.

The following is an outline of teaching & learning in each key stage:

Key Stage 1

Children will:

- 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
- use technology purposefully to create, organise, store, manipulate and retrieve digital content
- 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

Key Stage 2

Children will:

- 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

Cross-curricular Links

Information Communication Technology has many cross-curricular opportunities and, where relevant, will be both integrated and presented in contexts which will be relevant to the children's learning experiences.

Assessment

There is a whole school approach to assessment in Computing. Children's knowledge, skills and understanding are identified and recorded through formative assessment.

Monitoring and evaluation

The Computing Subject Team is responsible for monitoring the standard of the children's work, the quality of teaching, coverage and progression of the Computing curriculum. They are also responsible for supporting colleagues in the teaching of computing, for being informed about current developments in the subject, and for providing a strategic lead and direction for the subject in our school.

Equal opportunities

We will ensure that all children are provided with the same learning opportunities whatever their: gender, culture, race, disability or learning difficulties.

All children have equal access to ICT and computing and all staff members follow the equal opportunities policy. Resources for SEN children and gifted & talented will be made available to support and challenge appropriately.

Health and safety

The school is aware of and addresses the health and safety issues involved in children's use of ICT and computing.

Security

- The ICT and computing technician will be responsible for regularly updating anti-virus software
- Use of ICT and computing will be in line with the school's 'acceptable use policy'
- Parents will be made aware of the 'acceptable use policy' at school entry
- The school complies with all appropriate legislative requirements such as those contained in the Data Protection and Computer Resources Acts