

Computing Policy

'Learning and growing together: inspired by the love of Jesus'

Our Mission Statement lies at the heart of all that we do and helps us to define our sense of direction and purpose.

Our curriculum is designed around what makes a Catholic school distinctive and reflects the key areas identified by The Bishop's Conference of England and Wales 2014. These include:

- The Search for Excellence
- The Uniqueness of the Individual
- The Education of the Whole Person
- The Education of All
- Moral Principles

Intent – How is the school's curriculum is coherently planned and sequenced towards cumulatively sufficient knowledge and skills for future learning and employment?(Ofsted Handbook 2019)

The curriculum for computing has been set in light of the requirements of the National Curriculum:

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.

The curriculum has been **planned** as a clear framework that guides teachers and children through weekly objectives that have been **sequenced** to ensure knowledge, skills and understanding are retained and remembered.

Implementation - Teachers have good knowledge of the subject(s) and courses they teach. Leaders provide effective support for those teaching outside their main areas of expertise; Teachers present subject matter clearly, promoting appropriate discussion about the subject matter being taught. They check pupils' understanding systematically, identify misconceptions accurately and provide clear, direct feedback. In so doing, they respond and adapt their teaching as necessary without unnecessarily elaborate or individualised approaches.(Ofsted handbook 2019)

Computing Curriculum Planning

At St Aidan's Catholic Primary School we use the current National Curriculum as the basis for our curriculum planning in ICT. Our long-term and medium-term plans, taken from the **Knowsley ICT Scheme of work**, give **details** of each area to be taught for each term or half term. It is the ICT subject lead's responsibility to ensure children have the opportunity to build upon **prior learning**, which is taught and developed through the whole school progression map for history.

Aims

The national curriculum for computing 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*

EYFS

We encourage creative work within EYFS as this is a part of the Early Years curriculum. We look to introduce, practise and develop these skills by **teaching and modelling** and then encouraging children to apply these skills independently.

We enhance the **Understanding the World Early Learning Goal** as a starting point for developing early knowledge, skills and understanding in computing:

Understanding the world involves guiding children to make sense of their physical world and their community through opportunities to explore, observe and find out about people, places, technology and the environment

Children recognise that a range of technology is used in places such as homes and schools. They select and use technology for particular purposes.

The range of experience encourages children to **make connections** between one area of learning and another and so extends their understanding.

We provide a **rich environment** in which we encourage and value creativity. We give them the opportunity to work independently, within small groups and alongside other adults.

Key Stage 1

Pupils should be taught to:

- 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

Pupils should be taught 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

At St Aidan's, we know that effective teaching of this subject requires **expertise** and **knowledge** on the part of the teachers. We commit to engaging with training where available for all staff and for the subject leader to remain a point of help and advice.

We look to be persistent in asking children to **remember** what they have learned.

Impact - Pupils develop detailed knowledge and skills across the curriculum and, as a result, achieve well.

Assessment and recording

The impact and measure of this, is to ensure that children at St. Aidan's Catholic Primary are equipped with computing skills and knowledge that will enable them to be **ready** for the curriculum at Key Stage 3 and for life as an **adult** in the wider world.

We want the children to have thoroughly **enjoyed** learning about computing, therefore encouraging them to undertake new life experiences now and in the future.

We measure the impact of our curriculum through the following methods:

- Assessing children's understanding of the topic **before** and **after** the unit is taught.
- Summative assessment of pupil discussions about their learning.
- **Interviewing** the pupils about their learning (pupil's voice).
- Through book **scrutinies** and **learning walks**.
- **Marking** of written work in books and how this **reflects** the planned programme **faithfully**.

We are moving towards a clearer picture of what age related and greater depth will look like in the primary phase.

Resources

We have a wide range of resources to support the teaching of computing across the school which are stored in a central resource area.

Acceptable Use

We have agreed policies for acceptable use for both staff and children which offers specific guidance on the safe use of equipment. Online safety is of critical importance to us and we engage positively with teaching the children about this in the curriculum as well as specific online safety weeks.

We have also developed a policy around the use of devices as part of a Distance Learning Policy as groups may well be asked to engage digitally to carry on their learning from home.

Monitoring and review

Our Computing leader monitors this subject through examples of work for each year group, observing lessons/learning walks and through pupil voice feedback. This monitoring will reflect the 'deep dive' methodology applied to other subjects by senior leaders. It is also the responsibility of our history leader to support colleagues in the teaching of history where and when applicable.