



Computing Policy

The Curriculum at Our Lady of Lourdes RCPS

At Our Lady of Lourdes, our Computing School Policy is developed in accordance with the National Curriculum for Music (2014) and The Early Years Foundation Stage Statutory Framework (2023).

Throughout this Policy, the term 'Computing' includes the Understanding the World elements of Foundation Stage Curriculum, alongside National Curriculum for Computing for Key Stage 1 and 2.

Our Computing curriculum is designed with the support of Bolton Schools ICT Service (BSICT) to deliver the National Curriculum (2014) and Early Years Foundation Stage Statutory Framework (2023) as well as 'Education for a Connected World' (2020), ensuring that children have a wide range of opportunities to experience computing and develop their knowledge, understanding and skills.

Our school implements the curriculum through discreet Computing teaching, although links with other subjects are obvious and encouraged. Foundation Stage planning for Understanding the World shows how we engage our Reception and Nursery children in early computing learning experiences.

Planning for computing ensures that the subject receives its correct time allocation and allows progression over the key stages. Teachers plan work to cater for all abilities, including provision for pupils who are 'More Able & Talented' or those who have 'Special Educational Needs'. Wider opportunities for STEAM are available to pupils.

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.

Aims

Computing at Our Lady of Lourdes 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.

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.

When teaching computing in EYFS, enabling environments should be well planned and paramount to the lesson.

Each area of learning and development must be implemented through planned, purposeful play and through a mix of adult-led and child-initiated activity. There should be elements of:

- **playing and exploring** - children investigate and experience things, and 'have a go' e.g. move like a programmable robot following instructions
- **active learning** - children concentrate and keep on trying if they encounter difficulties, and enjoy achievements e.g. put instructions into order physically, program toys to move
- **creating and thinking critically** - children have and develop their own ideas, make links between ideas, and develop strategies for doing things e.g. predict the outcome of a set of instructions, or matching symbols to simple grids and the directions that will be taken

Teaching Methods

Children take part in weekly lessons which include:

As part of our planning process, teachers plan the following:

- A cycle of lessons for each subject, which carefully plans for progression and depth concentrating on the musical skills suited to the age group;
- Challenge questions for pupils to apply their learning in a philosophical/open manner;
- Learning outside the classroom to enhance the learning experience;
- Appropriate curriculum themed home learning tasks which children complete with adults at home;

To ensure computing progression in our curriculum, the plan for each year group focuses on a set of skills to be developed over the year. The skills that children will learn have been divided into three key areas:

- Computer Science
- Information Technology
- Digital Literacy

In EYFS, it is important that children have regular opportunities to engage with technology, enabling them to explore and play with a wide range of tech. The quality and variety of what children see, hear and participate in is crucial for developing their understanding, self-expression, vocabulary and ability to problem solve. The frequency, repetition and depth of their experiences are fundamental to their progress in understanding the world.

Please see the Skills Progression Document for more detail.

Adaptation

It is recognised that all pupils must be given opportunities to show what they know and can do. Recognising the different abilities within a class means that teachers must plan at a class, group and individual level.

This involves:

- Using a range of teaching styles which match the experience of all pupils within the class and begin to cater for different abilities

Various strategies are employed to allow pupils to achieve:

1. Common tasks, which will expect different outcomes.
2. Stepped tasks, with a common starting point but which aim to extend More Able & Talented pupils.
3. Grouping, in which pupils work on a task designed for that group.
4. Different resources, same task, which modifies the amount of information given to some pupils.
5. Independent learning - finding answers from a range of resources.
6. Challenges to stretch the thinking of those who have achieved the lesson objective.

Assessment and Recording

Teachers allow for assessment to be made during the course of a lesson using discussion, question and answer techniques and in encouraging pupils to communicate findings to others. This will be recorded in lesson evaluations. At the end of each unit of work in EYFS, Key Stage 1 and 2, teachers will record achievement of pupils using our school assessment procedures. This will identify the expectations for each unit and pupils who achieve at a level above or below these expectations will be identified. This will provide formative assessment and inform future planning needs.

This Policy will be reviewed by the Computing Subject Leader following consultation with the Curriculum Lead 2025.