

# **Curriculum Intent - Computing**

At St Bernard's, we want our children to become masters of technology. Technology is everywhere and plays a pivotal part in our children's lives. Therefore, we want to model and educate our children on how to use technology positively, responsibly and safely. We want our children to be creators and not just consumers and our broad curriculum encompassing computer science, information technology and digital literacy reflects this. We want our children to understand that there is always a choice with using technology and as a school, we utilise technology (social media and class dojo) to model the positive ways in which it can be used. We recognise that the best prevention for many issues we currently see with technology and social media is through education.

We recognise that technology can allow children to share their learning in many different and creative ways. We also recognise the accessibility opportunities that technology can provide for our children. Our knowledge rich curriculum has to be balanced with the opportunity for children to apply their knowledge creatively which will, in turn, allow our children to become skilful computer scientists.

We encourage staff to try and embed computing across the whole curriculum to make learning creative and accessible. We want our children to be fluent with a range of tools to best express their understanding and hope by Upper KS2, children have the independence and confidence to choose the best tool to fulfil the tasks and challenges set by their teachers.

## **Aims**

**The national curriculum for computing aims to ensure that all pupils:**

1. Can understand and apply the fundamental principles and concepts of computer science, including abstraction, logic, algorithms and data representation
2. Can analyse problems in computational terms, and have repeated practical experience of writing computer programs in order to solve such problems
3. Can evaluate and apply information technology, including new or unfamiliar technologies, analytically to solve problems
4. Are responsible, competent, confident and creative users of information and communication technology.

# **Implementation**

The teaching and implementation of the computing curriculum at St Bernard's Catholic Primary School is based on the National Curriculum and is supported by the Lancashire Key skills.

Whilst the key skills in computing are taught discretely, we aim to embed the children's learning throughout the wider curriculum.

We encourage our children to encourage and enjoy the curriculum that we deliver. We constantly ask the **WHY** behind their learning and not just the **HOW**. We want our learners to discuss, reflect and appreciate the impact that computing has on their learning, development and wellbeing.

The way that pupils showcase, share, celebrate and publish their work will best show the impact of our curriculum. We also look for evidence through reviewing pupils' knowledge and skills digitally and regularly observing learning.

Progress of our computing curriculum is demonstrated through outcomes and the record of coverage in the process of achieving these outcomes.

## **Subject content**

### **Key stage 1**

#### **Pupils are taught to:**

1. understand what algorithms are; how they are implemented as programs on digital devices; and that programs execute by following precise and unambiguous instructions
2. create and debug simple programs
3. use logical reasoning to predict the behaviour of simple programs
4. use technology purposefully to create, organise, store, manipulate and retrieve digital content
5. recognise common uses of information technology beyond school
6. 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 are taught to:**

1. Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts
2. Use sequence, selection, and repetition in programs; work with variables and various forms of input and output
3. Use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs

4. 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
5. Use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content
6. 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
7. Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact.

## **Impact**

**Summative assessments take place throughout the year and teachers record the progress and attainment against the National Curriculum expectations of attainment. Teachers use this information to inform future lessons; ensuring children are supported and challenged appropriately. Children in Foundation Stage are assessed within the technology strand of Understanding the World.**

**Further information is gathered through floor book scrutinies, lesson observations and pupil questionnaires; highlighting strengths and achievement and any improvements, knowledge and skills that still need to be embedded.**