Intent

At Welholme Academy, we ensure that all of our pupils experience a broad and balanced computing curriculum, which follows a structured, progressive, approach to learning. We believe that Computing is a subject that not only stands alone, but is also woven into other subjects and should be an integral part of all learning. With technology playing such a significant role in society today, we have designed our curriculum with the intent that pupils will leave our school with a wide range of fundamental skills, knowledge and understanding that will equip them for the rest of their lives. We teach our children to become digitally literate, to understand how to use technology purposefully and to use computational thinking so that they become independent problems solvers. This gives our children a chance to succeed in future workplaces and as active participants in a modern, digital world. Our vision is also to provide an overall education, which keeps our pupils safe and prepares them with the tools and strategies they need, to cope with the challenges currently posed in the modern world, such as social media.

Implementation

Teaching and learning should facilitate progression across all key stages within the strands of Digital Literacy, Information Technology and Computer Science. Children will have access to hardware such as; computers, IPads, programmable equipment and software to enable them develop their knowledge and skills. We have a clear and effective sequence of work that provides coverage in line with the National Curriculum. Our pupils take part in weekly computing lessons within our ICT suite and have use of IPads. Computing is taught both discretely and across the wider curriculum, supporting other areas of learning across the school.

In Foundation stage and Key Stage 1, children are taught to use equipment and software confidently and purposefully, to communicate and handle information and to develop their problem solving, recording and expressive skills. In Key Stage 2, our children extend their knowledge of communication, investigation and programming and work to understand how to communicate safely.

Our planned curriculum covers online safety each term as we feel this is such an important topic in modern education. We cover a range of issues, starting from Foundation Stage, including current issues such as 'fake news', 'stranger danger', and 'cyberbullying'. We have regular staff training and provide information to parents on our school website.

Below are the learning outcomes that will be covered in each key stage.

	KS1	KS2
CS	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
IT	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
DL	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] offer 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

Staff have CPD opportunities and are supported by our ICT technician and computing leads, so that they have the skills and knowledge that are needed to deliver our computing curriculum effectively.

Impact

After the implementation of our computing curriculum, children at Welholme Academy will be able to join the rest of the world on its digital platform. They will be equipped with not only the skills, knowledge and understanding of how to use technology effectively, but more importantly, they will know how to use technology safely. Children will understand the consequences of using the internet and know how to keep themselves safe online. They will have a secure and comprehensive knowledge of technology and digital systems and will be able to implement the skills they have learnt to use a variety of hardware and software for different purposes. They will be able to write algorithms and programs, identify bugs and find solutions to fix them.