



# Computing Curriculum Intent statement

*"Computers themselves, and software yet to be developed, will revolutionise the way we learn."*  
Steve Jobs

## What is the intention of our Computing curriculum?

### What are our aims?

In the modern world, technology plays a vital role in all aspects of life. As such, it is crucial that technology is at the centre of everything we do. At Whybridge Junior School, we believe that pupils need to understand how computer systems work and develop their computational thinking skills if they are able to participate effectively and safely in this digital world. Delivering a high-quality computing education equips our pupils to use creativity to understand and change the world.

Moreover, we need to develop children's understanding of information technology (using computer systems to store, retrieve and send information), computer science (programming and understanding how digital systems work) and digital literacy (evaluating digital content and using technology safely and respectfully) through the computing curriculum at Whybridge Junior School. The objectives within each strand support the development of learning across each year, ensuring a solid grounding for future learning and beyond. As well as this, online safety needs to be at the heart of each computing lesson and each lesson where technology is used to enhance learning.

At Whybridge Junior School, we follow the 'National Curriculum in England: Computing Programme of Study' and aim to give all pupils a strong understanding of the world around them, whilst acquiring specific skills and disciplinary knowledge to help them to develop their computational thinking skills. **Pupils develop their computational thinking skills in a variety of ways, such as programming and debugging tasks and 'unplugged' activities such as writing algorithms. This will help them to gain an understanding of computing processes, and also an understanding of the uses and implications of programmes today and in the future.**

### What is our rationale?

Computing prepares pupils to participate in the ever-changing world in which they work. Pupils use ICT to find, explore, analyse, exchange and present information responsibly, creatively and without discrimination. ICT promotes initiative and independent learning, with pupils being able to make informed judgements about when and where to use ICT to its best effect.

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 where they are 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. We believe that this rationale for Computing compliments the overall aspiration in our Curriculum Intent Statement at Whybridge Junior School.

## What are the attitudes we want to foster?

- To develop positive attitudes to computing that will start from the time they join the school and will follow into secondary education and beyond.
- To develop resilience through debugging of computer problems and using the skills developed here to solve problems in a variety of scenarios in computing and the world around them.
- To allow technology to be in the heart of pupils independently developing their own cultural capital.
- To constantly place E-Safety at the heart of every lesson which involves the use of technology within school and the wider world.

## How will we implement our Computing curriculum?

At Whybridge Junior School, computing skills are embedded in each unit of work that the children study in a carefully sequenced way and progression of skills are built upon each year. Units are carefully planned to ensure that prior knowledge is built upon, deepened and extended.

Computing is taught discretely, for 1 hour each week. We ensure that the requirements of the National Curriculum are delivered and we have adapted a scheme to meet the needs of the children at Whybridge Junior School. Evidence of pupils' work and progress is saved within a cloud-based system, to allow the children to independently access and amend their learning. Computing lessons are made up of the following strands: Programming, Computational Thinking, Creativity, Computer Networks, Communication/Collaboration and Productivity. Moreover, online safety is at the heart of each lesson, within each strand.

During lower key stage 2, pupils will build upon their knowledge and understanding of algorithms by designing, writing and debugging programs that accomplish specific goals. As well as this, pupils develop their control and simulation of physical systems. Pupils are encouraged to log the bugs they encounter and devise new lines of enquiry based on the debugging process they have gone through. Alongside this, pupils will also develop their logical reasoning to explain how some simple algorithms work. As part of their content creation, pupils will use sequence, selection and repetition in programs, working with a range of variables. During upper key stage 2, pupils will build upon their prior knowledge to develop a deeper understanding of the content delivered in lower key stage 2. They do this through exploring and talking about their ideas; posing their own questions before undertaking an independent enquiry phase and using reasoning to explain their processes, success and conclusions based on the errors they have encountered.

	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Year 3	We are presenters	We are communicators	We are bug fixers	We are vloggers	We are programmers	We are opinion pollsters
Year 4	We are software developers	We are musicians	We are meteorologists	We are HTML editors	We are co-authors	We are toy designers
Year 5	We Are Artists	We Are Game Developers	We Are Cryptographers	We Are Bloggers	We Are Architects	We Are Web Developers
Year 6	We are app developers	We are app planners	We are interface designers	We are market researchers	We are marketers	We are Project managers

## How will we judge the impact of our Computing curriculum?

Our Computing Curriculum has been carefully devised with unit plans which follow a logical, sequential manner which clearly outline what knowledge and skills pupils are expected to acquire. Assessment of Computing aims to evaluate progress and attainment of pupils.

The statutory requirements of the National Curriculum are assessed using Target Tracker. Pupils are assessed against their band objectives, when a criterion has been met within a unit. Computing must be assessed through ongoing teacher assessments, including the use of retrieval exercises and pupil summary exercises.