Whimple Primary School

Computing Curriculum Statement, Knowledge and Skills Progression

Subject Vision: "What a computer is to me is the most remarkable tool that we have ever come up with. It's the equivalent of a bicycle for our minds." Steve Jobs
Technology is everywhere and will play a pivotal part in 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, not 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 (especially social media) to model positive use. We recognise that the best prevention for a lot of issues we currently see with technology/social media is through education. Building our knowledge in this subject will allow children to effectively demonstrate their learning through creative use of technology. We recognise that technology can allow children to share their learning in creative ways. We also understand the accessibility opportunities technology can provide for our children. Our knowledge-engaged curriculum has to be balanced with the opportunity for children to apply their knowledge creatively which will in turn help our children 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 so that children have the independence and confidence to choose the best tool to fulfil the task, effectively preparing children for life in the twenty-first century.

Statement of Intent:

We intend to build a computing curriculum that:

- Develops pupil's learning and results in the acquisition of knowledge of the world around them.
- Ensures all children can understand, apply and analyse the fundamental principles and concepts of computer science, including abstraction, logic, algorithms and data representation in computational terms, and have repeated practical experience of writing computer programs in order to solve such problems.
- Prepares children to live safely in an increasingly digital British society where children can evaluate and apply information technology, including new or unfamiliar technologies, analytically to solve problems.
- Enables children to find, explore, analyse, exchange and present information.
- Develops the skills necessary for children to be able to use information in a discriminating and effective way.

We encourage children to know more, remember more and understand more in computing so that they leave primary school computer literate. Computing skills are a major factor in enabling children to be confident, creative and independent learners and it is our intention that children have every opportunity available to allow them to achieve this.
Whimple has chosen to follow a skills-progression curriculum model with knowledge underpinning the application of skills. Through Whimple's 6Rs and Skills Builder whole school programme, we develop and celebrate general skills of questioning, observation, creativity, problem solving and resilience that are embedded in our approach to children's engagement with their computing learning. The 2002 Education Act requires schools to provide a 'balanced and broadly based curriculum' which promotes the spiritual, moral, cultural, mental and physical development of children at our schools and prepares them for the opportunities, responsibilities and experiences of later life. We intend to deliver the 2014 National Curriculum in a purposeful, engaging and creative way by providing a broad curriculum that ensures that there are enough subjects on the timetable and a balanced curriculum that ensures that each subject is given sufficient space on the timetable to deliver its distinct contribution. The school curriculum is broader than the National Curriculum and our intention is to give children a richer and deeper experience that is not limited by the National Curriculum.

Statement of Implementation:

At Whimple Primary School, our Computing curriculum follows a clear, effective scheme of work that provides coverage in line with the National Curriculum and ensures appropriate progression in knowledge and skills. Teaching and learning facilitates progression across all key stages within the strands of digital literacy, information technology and computer science. Children have access to resources which aid in the acquisition of skills and knowledge. They have access to the hardware (computers, tablets, and programmable equipment) and software that they need to develop knowledge and skills of digital systems and their applications. Wider Curriculum links and opportunities for the safe use of digital systems are considered in curriculum planning and cross-curricular links are exploited wherever possible to strengthen learning and make it more purposeful and memorable. Through our curriculum, children have the opportunity to explore and respond to key issues such as digital communication, cyber-bullying, online safety, security, plagiarism and social media. The importance of online safety is made explicitly clear, with units of work based around the themes of online safety and topical issues regarding online safety regularly reviewed and discussed as necessary. Parents are informed when issues relating to online safety arise and further information/support is provided if required. As well as opportunities underpinned within the scheme of work, children will also spend time further exploring the key issues associated with online safety.

Our computing curriculum is based around the planning and resources of the Teach Computing Curriculum. The children's learning organised into half-termly units, focusing on one of the following themes:

- Computing systems and networks
- Creating media
- Programming
- Data and information

The Teach Computing Curriculum has been written to support all pupils. Each lesson is sequenced so that it builds on the learning from the previous lesson, and where appropriate, activities are scaffolded so that all pupils can succeed and thrive. The units for key stages 1 and 2 are based on a spiral curriculum. This means that each of the themes is revisited regularly (at least once in each year group), and pupils revisit each theme through a new unit that consolidates and builds on prior learning within that theme. This style of curriculum design reduces the amount of knowledge lost through forgetting, as topics are revisited yearly.

Statement of Impact:

Through our Computing curriculum, we prepare our children to be able to play active roles in tomorrow's rapidly changing world. We enable our children to become creative problem-solvers, both as individuals and as part of a team. Using the knowledge gained in this subject, children are able to effectively demonstrate their learning through the creative use of technology. Children are given the opportunity to apply their knowledge creatively which encourages them to become skilful computer scientists. We embed computing across the whole curriculum to make learning creative and accessible.

The impact of our curriculum will be seen when talking to and observing children and by looking at the work they produce. Pupils are able to improvise, adapt and overcome problems. They feel supported and secure in making mistakes and understand there will always be areas for improvement.

This Curriculum Statement should be read in conjunction the whole school overview of learning for this subject.