



Computing

Intent, Implementation, Impact Statement

	Key Points
Our Intent	<p>At Griffe Field Primary School, we believe a high-quality computing education equips children with the skills and knowledge in computational thinking and creativity to help them to understand the world that they live in and be able to be ambitious, successful young people. Computing is a significant part of everyone's lives and we believe that children should be at the forefront of new technology to complement and enhance their learning and experiences in a broad and balanced way.</p> <p>Computing has strong links to a variety of other subjects such as mathematics, science, design and technology and therefore we believe that, as an essential part of the curriculum, it is also integrated into all areas of learning, using a range of hardware, software and opportunities.</p> <p>At Griffe Field, we recognise that pupils are entitled to quality software and hardware and a structured and progressive approach to the learning of the skills needed, to enable them to use it effectively.</p> <p>We also recognise the importance of responding to new developments in technology and aim to equip pupils with the confidence and capability to use a range of different devices to enhance their experiences.</p> <p>We strive to provide a relevant, progressive and enjoyable curriculum for all pupils, as well as using it for a tool to enhance learning throughout the wider curriculum.</p> <p>Computing as a stand-alone subject has a number of key components, each of which we aim to teach and fully instill the value of amongst our pupils. These are:</p> <ul style="list-style-type: none"> • Computer Science – Pupils are taught the principles of information and computation, how digital systems work, and how to put this knowledge to use through programming. • Information Technology – Pupils are equipped to purposefully create programs, systems and a range of content in order to develop products and solutions. They will be able to collect, analyse, evaluate and present data and information. • Digital Literacy – Pupils are taught to use, access and express oneself through digital technology, including a critical understanding of technology's impact on the individual and society, at a level suitable for the future and as active participants in a digital world. <p>We also firmly believe the importance of delivering a high-quality E-Safety curriculum, alongside the core values of these three stands. E-safety is embedded throughout the computing curriculum and supports and consolidates the strong presence of E-safety within our PSHE curriculum.</p> <p>As technology develops, so does the need for a better understanding of how to use it in a responsible manner. The education of E-safety is therefore essential, to ensure children are equipped with the skills to recognise risks online, to be critically aware of the materials and content they access online, along with guidance on how to accurately validate information accessed via the internet.</p>

Pupils participate in regular Computing lessons in order to achieve the intent of the Computing and E-safety curriculum at Griffie Field. In addition to stand-alone lessons, skills taught are incorporated into other subjects, given the cross-curricular nature of computing and the opportunities to expand and develop lessons that this brings. Lessons are delivered using a range of devices and through un-plugged activities where necessary.

The delivery of computing and E-safety at Griffie Field is planned in line with the National Curriculum and allows for clear progression as children move through each stage of their education with us. Teachers use the 'Switched On Computing' scheme to support their planning and delivery and this is enhanced by software and guidance provided by 'Purple Mash'. Each year, children are taught the same six strands that fit into the three main components of computing. This allows children to build on and progress from their previous experiences, developing their skills, vocabulary and understanding in order to be active, responsible digital participants.

We have also identified key skills that are required in order to access and achieve key objectives within the curriculum. These are progressive and form our 'non-negotiables' document which teachers will teach and evaluate at appropriate points throughout the year.

At the beginning of each year pupils are taught E-safety as a discrete subject, using a range of support materials from the NOS (National Online Safety) in addition to other resources, such as SMART CREW and 'Internet Safety Centre'. These lessons build on prior knowledge and are adapted/modified to suit the requirements of the pupils within the class and current issues that may be relevant. Each unit after this will have reference to E-safety embedded where required. At Griffie Field we strive to engage parents and carers with the importance of safe and responsible behaviour online and hold an annual meeting, which is modified each year with relevant content and support materials. Pupils also take part annually in 'Internet Safety Day', following the suggested theme, which reflects current issues.

We recognise the need to continually maintain, update and develop resources to ensure the effective delivery of the National Curriculum and support the use of technology throughout the school. This includes:

- Interactive whiteboards in every classroom to enhance and promote effective use of technology for learning.
- 16 laptops for pupil use within lessons.
- 32 iPads for pupil use in both discrete lessons and across the wider curriculum.
- 2 ipads in each classroom as an additional resource to support teaching and learning.
- A range of programmable devices such as BeeBots and Probots.
- A range of plug-in devices to support programming, such as light boxes and controllers
- Data Loggers to collect and analyse data
- 'Class Act' filming kit, which includes a green screen, lights, microphone and accessories to promote pupils' ability to create content.
- Subscription to online content such as Discovery Education, Purple Mash, TTRockstars, NOS and Singup to promote learning in school and remotely through home access.
- The use of 'Microsoft Teams' to promote and support communication and collaboration across the curriculum.

Lessons are planned to provide for and include all children, including those with SEND, higher achieving/gifted and talented pupils, pupils with EAL needs and pupils from all social and cultural backgrounds. Pupils without home access are supported and catered for accordingly.

In Key Stage One, children will learn to understand what algorithms are, how they are implemented as programs on digital devices; and that programs execute by following precise and unambiguous instructions. They will be taught how to create and debug simple programs and use logical reasoning to predict the behaviours of simple programs. They will be shown how to use a range of technology purposefully to create, organise, store, retrieve and manipulate digital content as well as recognise common uses of technology beyond school.

They will be taught to 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.

In Key Stage Two, the children will build on their knowledge and experience from Key Stage One and will design, write and debug programs that accomplish specific goals by decomposing them into smaller parts. They will use sequence, selection and repetition in programs, use logical reasoning to explain how some simple algorithms work and correct errors in their own and existing programs.

Pupils will be taught to understand computer networks, including the internet, and the opportunities they offer for communication and collaboration. They will use search technologies effectively, learn to appreciate how results are selected and ranked, and be discerning in evaluating digital content.

Pupils will be taught to select, use and combine a variety of software (including internet services) on a range of digital devices to create a range of programs, systems and content that achieve given goals.

They will be taught to use technology safely, respectfully and responsibly; recognise acceptable and unacceptable behaviour and be clear how to identify a range of ways to report concerns about content and contact to keep themselves and others safe.

The Impact

After each unit of work, teachers will make a judgement on whether pupils have met, exceeded or are working towards the objectives set. This will also provide information for the subject leader and will be submitted for analysis to track and monitor achievement and progress and the impact that this has had.

Evidence of progression and achievement will be seen in examples of pupils' work stored on the server.

As a result of effective implementation, pupils will be able to apply their skills and knowledge in other areas of learning.

Pupils will be able to share their knowledge of how to be a responsible user of technology through discussion when questioned. They will be prepared for the next stage in their lives, knowing how to be a responsible user of technology in the wider world and most importantly, know where to seek support.

Pupils will be familiar with and will discuss their understanding of the three main strands and will know key vocabulary associated with these.

Confidence in this subject will also mean that pupils are able to be more independent and competent in life skills such as problem solving and logical thinking.