



Computing at Grange View CE First School

This is a guide for anyone who is visiting Grange View C.E First School to explain our approach to Computing in school. *Updated February 2023*



OUR INTENT: Why our Computing Curriculum looks like this.

Our aim is to provide a high-quality computing education which equips children to use computational thinking and creativity to understand and change the world regardless of their starting points in life and home environment. At Grange View we give our pupils life- skills that will enable them to embrace and utilise new technology in a socially responsible and safe way in order to flourish and achieve their God given potential. We want our pupils to be able to operate in the 21st century workplace and we want them to know the career opportunities that will be open to them if they study computing, raising aspirations.

Our intention is that computing also supports children's creativity and deep links with other subjects to engage children and enrich their experiences in school. Not only do we want them to be digitally literate and competent end-users of technology, equipped to tackle their next stage of education.

Planning

Our curriculum planning follows a two year rolling cycle to accommodate mixed year classes, The topics have been chosen based on the new curriculum and ensuring the themes are engaging and interesting to the children.

The computing focus for each term has been mapped out to ensure that all areas of the ICT curriculum are covered on a yearly cycle and have been sequenced methodically so that they support and enhance the curriculum topic being taught whilst building on previous knowledge and skills.

Skills progression and end points :

Our progression of skills has been created as a staff to ensure we are all confident in the expectations and key skills needed to be achieved by the end of the year for our pupils.

This allows for effective progression to take place throughout the school, with learning well matched to the pupils age and attainment. The skills are broken down into the three main areas starting from Reception – Year 4

Computing resources:

Computer Science:

- This starts with the use of Beebots and Roamer in EYFS then builds in KS1 to simple scratch programming and the use of turtle in JIT alongside probots. In KS2 they develop more confidence in scratch alongside crumbles and the Hour of Code.

Information Technology:

- As part of school 360 there is a wealth of programs in j2e and JIT that allow for presentations. This is supported through a range of ipad presentation apps including adobe spark video, clips and Padlet as well as Garage Band etc.

Digital Literacy:

- We follow the SWGfL Digital Literacy resources and supplement with recommended videos such as the Smart Crew and relevant e safety stories.

Chromebooks/tablets:

All children have school 360 accounts to log on. They use their log in to access the online resources for Information Technology (IT) as well as the internet and additional allocated websites such as scratch for research and Computer Science.

ipads:

We have 5-6 ipads in each KS1 & 2 class.
An online program is used to manage the apps which range from educational maths and phonics based apps to creative presentations such as imovie and sock puppets.

SUBJECT SPOTLIGHT – STEM WEEK (March)

Computing is part of Science, Technology, Engineering and Maths so has it's spotlight amongst STEM week when we have visitors in and encourage the use of these subjects in future careers.

SAFER INTERNET DAY (February)

We celebrate SID annually throughout the school to promote digital literacy. Listening to stories and doing a range of activities following the annual themes linked to staying safe online.

Time

Each class has a 1 hour slot allocated for discrete computing skills to be taught
The ICT resources are also available for use to support other areas of the curriculum.

Computing across the curriculum:

We encourage ICT to be used to enhance all areas of the curriculum as well as be taught in discrete sessions. Our topic floor books are a vehicle to showcase the learning that has taken place in our topic work. Often children showcase their understanding through the use of ipad apps and this is shared using QR codes within seesaw. We also use School 360 as an online portal to set weekly homework for the children in Y1-4.

Assessment:

Computing is a very practical taught subject with lots of physical applications, through each unit of learning a series of assessment for learning techniques will be used such as no stakes quizzes, show me boards and exit tickets to determine what the children have retained and understood. Formative assessment throughout the lesson will inform the future learning for the children, with adaptations being made where necessary to meet the needs of all. At the end of a unit a pop task will be used to encourage the children to showcase and apply their learning of the computing concept in relation to the intended outcomes.

EYFS:

In Early Years they use the EYFS log in during the summer term to use the chromebooks. Until then, a large proportion of their learning is exploratory with cameras, ipads and interactive apps building the foundations for future learning and enquiry.

Where it all begins: Early Years Starting points.

Technology is an area of the curriculum that the children enter with a baseline at the expected level. Throughout their time in the early years they are provided with a range of experiences using smart TVs to enhance their motor skills and core learning development as well as ipad apps tailored to specific areas. Discrete computing lessons are taught using programmable toys to debug and build algorithm skills and unplugged tasks using barefoot resources. Additionally, in preparation for KS1, they practise simple processing techniques, familiarising themselves with the online learning platform and building mouse control.

Q of E - Pedagogical choices

- A mixture of unplugged tasks alongside the use of different devices and programs provides a wealth of experiences
- Discrete skills lessons are taught weekly alongside opportunities to apply their skills across the curriculum
- Aspects such as algorithms are taught in pairs or threes to encourage collaboration and development of debugging skills.
- Digital literacy is taught both discretely within termly RSHE lessons and signposted within active computing sessions.

Q of E - SEND provision

- A range of devices are available for pupils, with SEND having priority options when choosing a preferred device
- A vast majority of learning takes place in mixed ability pairs, to ensure that support and challenge is available and peer support is encouraged.
- Practical unplugged tasks are used throughout the curriculum to support and engage the slower graspers.

Implementation: How are they knowing more and remembering more?

Quality of Education	Computing is such an important life skill that at Grange View we are keen to enable every child to flourish and thrive. The long term plan has been carefully planned to ensure a spiral approach to each concept, revisiting skills in subsequent years in different contexts. Wherever possible, links to the termly theme have been made to give learning a meaningful context and purpose. Both KS1 and KS2 leads have been on training led by the SLA which helped them collaborate and create the existing long term plan, the S plan for computing identified the national curriculum content being covered in each term which acts as a great point of reference for prior learning and building on previous skills for the children. Expert knowledge can always be obtained from the Computing in Schools or SLA leads as well. Sequences of work are planned with the end goal in mind, fostering a mastery approach of small steps with learning carefully sequenced to build skills gradually upon prior learning. Assessment takes place within the lesson, with teachers adapting their teaching in future lessons to address misconceptions and check understanding. Using a mixture of discrete learning and then computing as a tool to apply across the curriculum, it is intended that these skills and concepts become an asset to their life long learning. The digital literacy expectations are planned clearly for each year group, with learning opportunities resourced and supported in PSHE lessons and a clear progression of depth and understanding explored.
Behaviour and Attitudes	Computing is an area of the curriculum the pupils enjoy. They have a safe and secure environment to explore and develop their skills and build awareness of ways in which they could apply this in real life contexts. Collaborative working encourages our core values of friendship, trust and respect, having to take turns and work on a shared goal. Class dojo and verbal praise is always used as incentives and rewards as well as having a carefully planned and structured learning experience to ensure all can engage and succeed in each lesson. The advantage of computing, is that in remote learning situations, opportunities to access the curriculum can still be made available through our online platform
Personal Development	Computing is an area we often get opportunities to share with parents, either through social media posts and advice, or through family worship and parent workshops. Parents know where to go on our website for advice and are confident knowing who to speak to in school if they had a problem. The curriculum has been planned with a breadth that raises aspirations and provides STEM opportunities. Through partner work, debugging and problem solving throughout the curriculum, the children build their tolerance and respect for others' contributions. Whenever possible, examples of STEM ambassadors are shared with the pupils to build awareness of British values, equality and diversity. Further opportunities to debate and discussion are often presented through picture news discussions. High quality texts are shared with the children to support their awareness of digital literacy, with morals and important messages discussed throughout the year.
Leadership and Management	Computing is monitored through pupil voice termly with the children being able to articulate aspects of their learning and give examples of real life contexts. Digital literacy is evidenced through PSHE floor books and the pupils can use these to recount their learning, the important message and texts or videos that supported their learning. Like with all subjects, an action plan is written each year for computing, this focussed on key priorities that are planned into the SIP. Annually, we celebrate safer internet day, raising awareness further of digital literacy as well as the subject leader training all stakeholders including parents on how to keep pupils safe online. The subject leader has recently been trained as a CEOP ambassador, so is fully qualified to train all stakeholders and other schools. This training provided a wealth of resources shared with staff to further develop and enhance digital literacy in the classroom. Being part of the SLA and Computing in Schools, allows the subject leader and relevant staff to access additional training or professional development. Interventions are not as commonly implemented for computing, however if areas are found to be less secure, class teacher planning with be amended to address misconceptions or gaps in knowledge. Governors are informed termly of subject developments, with termly meetings taking place with the link governor sharing successes, areas for development or key priorities.
Early Years	Computing is no longer part of Knowledge and Understanding of the world, however, at Grange View we continue to give it priority in the Early Years. This ensure that not only do the pupils use technology daily they see a relevant purpose for it. Learning experiences are planned out throughout the terms to support the learning themes and allow for exploration. Every day, prior learning is being built upon with planned repetition of tasks and opportunities. The pupils have experiences with information technology through using the ipads to take pictures, record sounds and make simple creations as well as computer science with the beebots and other programmable toys. Their digital literacy is revisited throughout the year, linked with the PSE strand. They discuss personal information about themselves, telling trusted adults and the importance of stranger danger.



What is it like to be a pupil at Grange View studying Computing on a daily basis?

Computing is a useful skill we can use in later life, we learn lots of different techniques that can be applied in real life contexts to become digitally aware. A range of devices, apps and other technology is used to support our learning and showcase our understanding in other aspects of the curriculum.