

# COMPUTING POLICY



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# Grange Park Primary School Computing Policy

## Introduction to the policy

### Intent

Computers are part of nearly every aspect of modern life. Through teaching computing, we intend to equip children to participate in a rapidly-changing world where work and leisure activities are increasingly transformed and enhanced by technology. Computing skills and knowledge are a major factor in enabling children to be confident, creative and independent learners, which is what we want for all pupils at Grange Park.

We intend to give our pupils the knowledge and understanding that will be essential for a future which is going to be heavily reliant on computers and technology along with the necessary skills and experience to access the opportunities and challenges that they will encounter. This includes enabling them to be independent critical thinkers who can use their knowledge and understanding to problem solve.

At Grange Park, we believe it essential that children learn how to use a wide range of technologies and are exposed to a variety of software to build their knowledge and confidence in computing. It is our intention to ensure that all our pupils receive this exposure and become familiar with many areas of computing through the teaching of our curriculum.

### Implementation

To ensure that we achieve our intent, at Grange Park we teach the computing curriculum by following the *NCCE Teach Computing Scheme*. By following this scheme of work, we ensure that all children receive full coverage of the curriculum in a progressive way that builds on their knowledge and skills as they progress through school.

All year groups teach five modules per year, with six lessons in each module that cover a wide range of technologies and skills. Children will have the opportunity to access various practical activities along with written work depending on the module and what the learning goals are.

Teachers will ask engaging questions and encourage children to ask questions based on their learning to further develop their skills, knowledge and understanding. Assessment for learning will take place during lessons and at the end of modules to ensure that misconceptions are addressed and so that the children make good progress in their computing lessons.

Computing also covers online safety (see Online Safety Policy for details) which is taught to the pupils regularly through Project Evolve to ensure they know how to use digital technology safely and responsibly at school and at home. Project Evolve cover all eight aspects of online safety: Self-image and Identity, Online Relationships, Online Reputation, Online Bullying, Managing Online Information, Privacy and Security, Copyright and Ownership and Health, Well-being and Lifestyle. More details about online safety at Grange Park can be found in our online safety policy.

Our main aims for implementation are as follows:

- To meet the requirements of the new national curriculum programmes of study for computing.
- To enable children to become autonomous, independent users of digital technology, gaining confidence and enjoyment from their activities.
- To use computing as a tool to support teaching and learning across all areas of the curriculum, creating cross curricular links where possible.
- To provide children with opportunities to develop their computing capabilities in all areas specified by the Curriculum.
- To ensure children have a sound understanding of the importance of online safety.
- To have a whole school approach to computing which ensures continuity and progression for all pupils.

## **Impact**

The impact of our curriculum is that throughout their time at Grange Park, our pupils will demonstrate progression in their computing skills and complete a variety of tasks and projects related to the computing curriculum.

Children will build on skills learnt in previous year groups and leave Grange Park with a broad understanding of computing and the ability to use their computing skills to help them solve problems and achieve outcomes. These skills will also translate into other areas of the curriculum including mathematics, science, design technology and art.

Finally, our pupils will leave with a solid understanding of online safety, the risks which they may face and how to deal with these risks (see our online safety policy for more detail).

## **Roles and Responsibilities**

### **Computing Coordinator**

There is a designated computing co-ordinator to oversee the planning, delivery and monitoring of computing within the school. The coordinator will be responsible for:

- Raising standards in computing as a national curriculum subject.
- Facilitating the use of digital technology across the curriculum in collaboration with all subject coordinators.
- Providing or organising training to keep staff skills and knowledge up to date.
- Advising colleagues about effective teaching strategies, managing equipment and purchasing resources.
- Monitoring the delivery of the computing curriculum and reporting to SLT on the current status of the subject.
- Providing long terms plans for computing and online safety.
- Monitoring computing across EYFS, KS1 and KS2.

### **The Classroom Teacher**

It is the responsibility of each teacher to plan and teach appropriate computing activities. It is also the responsibility of the class teacher to ensure attainment and progress is recorded for computing, for their class. The class teacher is also responsible for differentiating lessons and activities to suit the needs of their children.

## **Monitoring**

Monitoring computing will enable the coordinator to gain a good overview of the teaching and learning throughout the school. This will assist the school in the self evaluation process identifying areas of strength as well as those

for development. In monitoring the quality of computing teaching and learning, the coordinator will:

- Hold discussions with teachers regarding any difficulties delivering the curriculum.
- Monitor work once per year to ensure that computing is being delivered effectively across the whole school.
- As part of the monitoring cycle within Grange Park Primary School, an annual Co-ordinator Curriculum Review for Computing is conducted, and feedback shared during the following half termly Pupil Outcome Meeting. There is also staff meeting time assigned to Computing , following the above, whereby any areas for development can be discussed and appropriate CPD offered. Pupil voice and staff voice will form part of this review.

## **Planning**

At Grange Park, we follow the *NCCE Teach Computing Scheme*. This scheme is a spiral curriculum which allows the children to grow and progress their skills and knowledge year on year. It maps out the modules and lessons for all year groups from Year 1 to Year 6 and includes individual lessons plans, lesson resources, lesson slides and assessment opportunities. Teachers are expected to teach all these lessons for their year group in the correct sequence and will be given two full days per half term to complete the modules. Computing lessons will be block taught over two days to ensure that there is enough equipment for the class to use and to help the children secure the necessary skills to complete the modules. We have adapted the original scheme to suit our setting by only teaching five of the six modules provided by the NCCE. However, this has had no impact on the coverage, or delivery of the national curriculum for computing and we have ensured that we still meet the requirements of the national curriculum in the remaining five modules.

With regards to online safety, we use Project Evolve to deliver our online safety curriculum, which consists of a number of lessons in each year group and is accessible and progressive, ensuring messages are reinforced each year in an engaging manner appropriate for each year group. The Project Evolve curriculum has been developed by the UK Safer Internet Centre (UKSIC) and the South West Grid for Learning (SWGfL) to provide education on eight strands of our online lives for children from Year 1 up to Year 6. EYFS use age appropriate videos and activities so that the children are

introduced to online safety at the earliest possible opportunity, in an easy-to-understand and appropriate way.

Our roadmap of the *NCCE Teach Computing Scheme* shows an overview of all the units that the children will cover in each year group and the order that they will be taught (see *Figure 1*). The order of these modules has been designed to ensure computer science modules are taught first in each year group.

Year Group	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer
	<b>Computer Science</b>	<b>Computer Science</b>	<b>Computer Science</b>	<b>Digital Literacy</b>	<b>Digital Literacy</b>
Year 1	Technology Around us <b>Paintz.app</b>	Moving a <a href="#">Robot</a> <b>Robot Mice</b>	Programming Animations <b>Scratch Junior</b>	Grouping Data <b>Physical and written</b>	Digital Writing <b>Microsoft Word</b>
Year 2	Information technology around us <b>Written Work</b>	Robot Algorithms <b>Robot Mice</b>	Programming Quizzes <b>Scratch Junior</b>	Pictograms <b>J2 Data - Seesaw</b>	Making Music <b>Chrome Music Lab</b>
Year 3	Connecting Computers <b>Written Work</b>	Sequencing Sounds <b>Scratch</b>	Events and Actions in Programming <b>Scratch</b>	Branching Databases <b>J2 Data - Seesaw</b>	Desktop Publishing <b>Ipads</b>
Year 4	The Internet <b>Written Work</b>	Repetition in Shapes <b>Logo</b>	Repetition in Games <b>Scratch</b>	Data Logging <b>Ipad</b>	Photo Editing <b>Ipad</b>
Year 5	Sharing Information <b>One Drive - Powerpoint</b>	Selection in Physical Computing <b>Crumbles</b>	Selection in Quizzes <b>Scratch</b>	Flat-file Databases <b>J2 Data - Seesaw</b>	Vector Drawing <b>Microsoft Powerpoint</b>
Year 6	Internet Communication <b>Written Work</b>	Variables in Games <b>Scratch</b>	3D Modelling <b>Tinkercad</b>	Introduction to Spreadsheets <b>Microsoft Excel</b>	*Sensing <b>MicroBits</b>

\*Y6 - sensing module moved as it requires more time and spring is often a shorter term. After SATs, it is a fun module that the children enjoy. Also, [Microbits](#) are used in spring for [Science](#).

\*\* Some modules may be moved to the next term depending on the length of terms; the order of modules will remain.

**Figure 1**

Children in EYFS will be exposed to age-appropriate technologies throughout their learning and continuous provision to increase their familiarity around technology and so they can start to develop skills related to the computing curriculum.

## **Assessment and Reporting**

Pupils' computing capability will be assessed at the end of each term. Pupils' progress and attainment will be assessed by their class teacher at the end of each term and inputted into Cornerstones Maestro (the school's assessment tool). This will be a teacher assessment based on the outcome of

work completed in modules along with observations made by the class teacher during lessons.

Parents will be informed of their child's progress at the end of each academic year in their report home.

## **Health and Safety**

It is imperative that all electrical equipment is kept in good working order. To ensure the health and safety of pupils and staff the following guidelines must be adhered to:

- Children are not allowed to move laptop or iPad trolleys.
- Leads must be kept as tidy as possible to prevent trips.
- Equipment is to be situated away from water.
- Pupils must always be supervised when using electrical equipment.
- Pupils will not be allowed to carry heavy equipment.
- Seating and work stations should ensure safe and comfortable conditions for pupils using computers.
- Adequate levels of lighting and ventilation should be ensured at all times.

## **Equality**

Our delivery of the computing curriculum will ensure that it can be accessed by all children. The individual needs of children, with or without SEND, will be met in the planning and teaching of lessons so that every child has the same opportunities throughout EYFS, KS1 and KS2.

## **Resources**

The computing co-ordinator is responsible for storage of subject resources. These resources must be easily available to all staff, at all times during the school day. Laptops and iPads are excluded from this list, as their storage and maintenance is the responsibility of the onsite IT Technician. The downloading of apps and the installation of software are also the responsibility of the on-site IT Technician.

The computing coordinator will be responsible for checking that teaching staff have the software, or apps needed to deliver the curriculum effectively and act upon this is appropriately.

## **Online safety**

See Online Safety Policy.