Grove Vale Primary School

Computing Policy

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Mission Statement linking to Computing

At Grove Vale, we strive to provide a welcoming, nurturing and caring environment where our pupils can flourish and exceed their potential in all aspects of their development, our motto devised by a pupil is Together We Grow. We encourage pupils to use our core values, which underpin our school ethos and teaching and learning. Our values aim to expand our pupils' minds, developing confident, resilient and articulate learners ready for life in the diverse and technological world we live in. We aim to provide a foundation for our pupils to value each other and our community, respecting the rights of each other in both the real world and the digital. We ensure that our welcoming, secure and visually stimulating environment supports our staff and pupils to promote a love of learning every day. We grow together with grace, valour, pride, success empowering our ambitious pupils to strive to be the very best they can be in partnership with parents, governors and the community, leaving a positive footprint virtually and physically.

Introduction

The use of information and communication technology is an integral part of the National Curriculum and is a key skill for everyday life. A high-quality computing education and curriculum equips pupils to use and apply computational thinking and creativity in order to understand and change the world. Computers, tablets and cameras are a few of the tools that can be used to acquire, organise, store, manipulate, interpret, communicate and present information. The curriculum allows deep links with a range of subjects (maths, science, English, art and music to name a few), which offer opportunities to further develop and consolidate knowledge, understanding and skills in these areas.

Computer science aims to teach the principles of information and computation, how digital systems work and how to apply knowledge through programming. By building on their learning, pupils are equipped to use information technology to create programs, systems and a range of content. In order to be able to teach and learn effectively, we recognise that pupils are entitled to quality hardware and software and a structured and progressive approach to the learning of the skills needed to enable to reach their full potential.

The purpose of this policy is to state how the school intends to make this provision. Computing also ensures that pupils become digitally literate – 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. It ensure they can select, use and combine a variety range of technology and a variety of software for functional purposes including: collecting and presenting information/data, designing and creating in order to accomplish a given goal.

In addition to this, it aims to support children to be safe, positive and successful digital citizens through the teaching and learning of online safety, which is embedded regularly throughout our school curriculum and the opportunities we provide for our children.

Aims of the Teaching of Computing

The School's aims are to:

- To provide a relevant, challenging and enjoyable curriculum for ICT and computing for all pupils in all year groups.

- To meet the requirements of the National Curriculum Programmes of Study for Computing (ICT) and Online Safety.

- To use ICT and Computing as a tool to further enhance learning throughout the curriculum.

- To respond to new developments in technology;

- To equip pupils with the confidence and capability to use ICT and Computing independently, outside of school and in later life.

- To develop the understanding of how to use ICT and Computing safely and responsibly.

- To provide pupils with the knowledge to select and make appropriate choices in relation to technology, software and being online.

Aims of the Nation Curriculum in reference to Computing

The national curriculum for computing aims to ensure that all pupils:

- can understand and apply the fundamental principles and concepts of computer science, including abstraction, logic, algorithms and data representation.
- can analyse problems in computational terms, and have repeated practical experience of writing computer programs in order to solve such problems.
- can evaluate and apply information technology, including new or unfamiliar technologies, analytically to solve problems.
- are responsible, competent, confident and creative users of information and communication technology.

Resource provision

The School acknowledges the need to continually maintain, update and develop its resources and to make progress towards a consistent, compatible technology system by investing in resources that will effectively allow it to deliver the strands of the National Curriculum and support the use of computing across the school. Teachers are required to inform the Computing Subject Leader of any faults as soon as they are noticed. A service level agreement is in place to help support the Subject Leader to fulfil this role both in hardware & audio visual.

ICT and computing network infrastructure and equipment has been sited so that:

- all classrooms contain an interactive whiteboard to enhance the teaching and learning in all lessons across the curriculum.

- additional zones have access to interactive whiteboards to enhance teaching and learning across school.

- each class have access to an ipad.

- at least 2 ipads in the Early Years Foundation Stage that are used to assess and support the pupils using Tapestry.

- each class has an Amazon Echo Dot.

- each phase has access to a bank of laptop devices (e.g Chrome books).

- a bank of ipads for group/class use.

- In addition to this, there is a variety of other ICT equipment in School to support the children in accessing the curriculum. A variety of software is available for supporting lessons across the curriculum. All software is recommended by the LA is used in school. Pupils also have access to resources online to cover all aspects of the curriculum. These resources are monitored and used under the guidance and supervision of the class teacher.

To ensure that copyright laws and virus protection procedures are adhered to staff, pupils and parents are not permitted to run software brought in from outside School on School machines. One drive is also used as cloud storage to eliminate the use of USB drives for storage to protect our systems from viruses and uphold GDPR procedures. The School has a Computing technician who visits school one afternoon ever week. Nominated governors and the Chair (L MacCarthey) take a particular interest in ICT, Computing and Online Safety in School.

Teaching and Learning Objectives
Early Years Foundation Stage:

- It is important in the Early Years Foundation Stage to give children a broad, play-based experience of ICT in a range of contexts, including outdoor play. ICT is not just about computers.
- Early Years learning environments should feature ICT scenarios based on experience in the real world, such as in role-play.
- Children gain confidence, control and language skills through opportunities to 'paint' on the whiteboard or remote control cars.
- 2 Simple Infant Video tool kit which includes paint, data handling and a publisher.
- Outdoor exploration is an important aspect, supported by ICT toys such as walkie-talkie mobile phones sets.
- Recording devices (talking tins, postcards and recordable microphones) can support children to develop their communication skills. This is especially useful for children who have English as an additional language.

By the end of Key Stage 1 pupils should be taught to:

- Understand what algorithms are; how they are implemented as programs on digital devices; and that programs execute by following precise and unambiguous instructions
- Create and debug simple programs
- Use logical reasoning to predict the behaviour of simple programs
- Use technology purposefully to create, organise, store, manipulate and retrieve digital content
- Recognise common uses of information technology beyond school
- 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.

By the end of Key Stage 2 pupils should be taught to:

- Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts.
- Use sequence, selection, and repetition in programs; work with variables and various forms of input and output.
- Use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs.
- Understand computer networks including the internet; how they can provide multiple services, such as the world wide web; and the opportunities they offer for communication and collaboration.
- Use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content.
- Select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information.
- Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact.

Computing Curriculum

Our curriculum uses Purple Mash and Mini Mash to support staff to effectively plan, teach and deliver Computing (including online safety) at Grove Vale. Each year group has an overview, which is adapted, progressive and sequenced based on children's knowledge of previous years and key stage objectives while considering challenge and variety across technologies and software.

The curriculum provides a wide range of varied technological experiences using a number of different tools. Units are carefully sequenced in order to provide opportunities for retrieval and to deepen children's understanding of computational concepts, providing pupils opportunities to apply and extend their understanding and make clear links between in learning.

Online Safety Curriculum

In addition to Purple Mash, resources such as Rising Stars, Education for a Connected World, Be Internet Legends, etc are used to support the teaching and delivery of online safety in school. Children are provided with opportunities, which align the RSE/PSHE objectives. Children are able to discuss and learn about online safety daily through assemblies, computing lessons and through the use of the school ambassadors the "online safety champions".

Entitlement to Computing Curriculum

An adult must supervise children when they are accessing information from the Internet and online safety discussions and advice should be shared within any lesson involving the use of technology and the internet. It should also be discussed regularly between children and staff at SMT meetings and during briefings. Our service provider filters information and reports are sent securely through email. All staff are responsible for ensuring children are consistently reminded and aware of the risks and threats online and how to deal with any issues if they were to arise. Teachers plan to use websites, resources and online content such as videos, which are checked prior to the lesson to ensure they are suitable. YouTube is also blocked for children in school and only accessible by a member of staff.

Cross curricular Links

As a staff, we aim to use ICT and computing resources and devices to enhance teaching and learning within every subject, particularly within Core and Foundation Subjects. Where appropriate, ICT and Computing should be incorporated into schemes of work for all subjects. Using computing cross circularly, should provide children with an opportunity to embed and further develop their skills. Using our curriculum overview, teachers plan computing activities that link closely to topics in order to further consolidate learning and deepen children's knowledge within the subject area.

Assessment and record keeping

Teachers regularly assess capability through observations and looking at completed work. Units are split into predominant areas of computing: Computer Science, Information Technology and Digital Literacy. Key objectives to be assessed are taken from the National Curriculum to Assess Key ICT and Computing Skills, which can be tagged when setting activities on Purple Mash. Assessing Computing is an integral part of teaching and learning and central to good practice. It should be process orientated - reviewing the way that techniques and skills are applied purposefully by pupils to demonstrate their understanding of the concepts of ICT and Computing. As assessment is part of the learning process, it is essential that pupils are closely involved. Assessment can be broken down into;

- formative assessments which are carried out during and following short focused tasks and activities. They provide for pupils and teaching staff the opportunity to reflect on their learning in the context of the agreed success criteria. This feeds into planning for the next lesson or activity.

- Summative assessment should review pupils' capability and provide a best fit level. Use of independent open-ended tasks, provide opportunities for pupils to demonstrate capability in relation to the term's work. There should be an opportunity for pupil review and identification of next steps. Summative assessment should be recorded for all pupils – showing whether the pupils have met, exceeded or not achieved the learning objectives.

We assess the children's work in Computing by using Purple Mash. We assess children based on the success criteria of the lesson and reference judgment indicators to support staff judgments for each unit. We allow children opportunities to provide verbal and written feedback for themselves or their peers via peer and self-assessment at the end of tasks this may be recorded on Purple Mash, a post it for computing folders or verbally. Computing work is saved on Purple Mash, in computing folders or in folders found on Office 365 depending on the task/unit.

Monitoring and Evaluation

The Subject Leader and SLT are responsible for monitoring the standard of the children's work and the quality of teaching. This may be through lesson observations, work scrutiny, pupil conferencing or looking at other data for the subject. The Subject Leader is also responsible for supporting colleagues in the teaching of computing, for being informed about current developments in the subject, and for providing a strategic lead and direction for the subject in the School. We allocate special time for the vital task of reviewing samples of children's work and for visiting classes to observe teaching in the subject.

Staff Training

- The Computing Subject Leader will provides and address staff training needs as part of the annual subject action plan, staff requests or issues that are needed to be addressed at a specific point in time.
- Individual teachers should attempt to continually develop their own skills and knowledge, identify their own needs and notify the Subject Leader.
- Teachers will be encouraged to use ICT and Computing to produce plans, reports, communications and teaching resources.
- Sue Courtney Donovan also attends online safety and computing meetings along with our online safety champions in order to further support teaching and learning within school.

Pupils with special educational needs and Disabilities (see also SEND Policy)

We believe that all children have the right to access ICT and Computing. In order to ensure that children with SEND achieve to the best of their ability, it may be necessary to adapt the delivery of the Computing Curriculum for some pupils. We teach ICT and Computing to all children and all ability levels. Computing forms part of the National Curriculum to provide a broad and balanced education for all children.

Through the teaching of Computing, we provide learning opportunities that enable all pupils to make progress. We do this by setting suitable learning challenges and responding to each child's different needs. Where appropriate, Computing can be used to support SEND children on a one-to-one basis where children receive additional support.

Security

- The Computing technician and Subject Leader will be responsible for regularly updating anti-virus software.
- Use of ICT and Computing will be in line with the School's 'Acceptable Use Policy'. All staff, volunteers and children must sign a copy of the School's AUP.
- Parents will be made aware of the 'Acceptable Use Policy' on admission and it is looked at yearly.
- All pupils and parents will be aware of the School Rules for Responsible Use of ICT and Computing and the Internet and will understand the consequence of any misuse.
- The agreed rules for safe and responsible use of technology and the Internet will be displayed in all ICT and computing areas.
- Online Safety sessions take place within computing lessons, during daily discussions, via newsletters and assemblies (find more in the online policy).

Parental involvement

Parents are encouraged to support the implementation of Computing where possible by encouraging use of ICT and computing skills at home during home-learning tasks and through the school website. They will be made aware of online Safety via newsletters, school workshops, etc. They are encouraged to promote online safety rules and support children to continually develop and show a positive digital footprint. Information is also updated on our current section of online safety on the school website.

Approved on
Governor's signature_____ Date _____