Glenthorne Community Primary School
Computing Policy

This policy document sets out the school's aims, principles and strategies for the delivery of Computing. It will form the basis for the development of Computing in the school and wider curriculum. This document is for staff and is available to parents. A copy is held by the Computing Co-ordinator and another by the Head teacher. Another copy is to be kept in the policy folder held in the school office.

Aims and Intentions

The Computing curriculum should offer opportunities for our children to:

- Develop their understanding of the fundamental principles and concepts of computing and computer science.
- Develop their skills in using hardware and software to manipulate information in their process of problem solving, recording and expressive work.
- Develop a high quality computing education which equips them to understand and change the world through logical thinking and creativity.
- Develop their understanding of how digital systems work and to become digitally literate individuals.
- Explore their attitudes towards ICT, its value for themselves, others and society, and their awareness of its advantages and limitations.

Objectives

Early Years

It is important in the Foundation Stage to give children a broad, play-based experience of Computing in a range of contexts, including outdoor play. Computing is not just about computers. Early years learning environments should feature Computing scenarios based on experience in the real world;, such as role play. Children gain confidence, control and language skills through opportunities to explore using non-computer based resources such as metal detectors, controllable traffic lights and walkie-talkie sets. Recording devices can support children to develop their communication skills. This is particularly useful with children who have English as an additional language.

Key Stage 1 outcomes:

- 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.

Key Stage 2 outcomes:

- Design and write 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; generate appropriate inputs and predicted outputs to test programs
- Use logical reasoning to explain how a simple algorithm works 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
- Describe how internet search engines find and store data; use search engines effectively; be discerning in evaluating digital content; respect individuals and intellectual property; use technology responsibly, securely and safely
- Select, use and combine a variety of software (including internet services) on a range of digital devices to accomplish given goals, including collecting, analysing, evaluating and presenting data and information.

Implementation

At Glenthorne, our computing curriculum is supplemented by the Purple Mash scheme of work, which we follow from Year 1-6. This ensures coverage of the Key Stage 1 and 2 National Curriculum statements, consistency and progression throughout the school. This platform also allows children to access a range of

computer-based learning at home, enabling them to apply their learning in different contexts. Units cover a broad range of computing components such as coding, spreadsheets, Internet and Email, Databases, Communication networks, touch typing, animation and online safety.

Our curriculum is split into 4 categories:

- Computer Science – Through Purple Mash, children are able to develop their coding understanding, by building on from using logical reasoning to create and debug simple programs in Key Stage 1 to designing, writing and debugging more sophisticated code to accomplish specific goals in Key Stage 2.
- Information Technology – Children are able to understand how to search the internet safety and effectively. They are able to evaluate information, understand website credibility and know how to keep information secure with an understanding of local and global networks.
- Digital Literacy– Through Purple Mash, children are able to access a range of different programs and showcase their digital literacy skills. Children are able to understand how learning can be applied to real world contexts. They are able to take this learning and apply it to other areas of the curriculum.
- Online Safety – Whilst we want to encourage children to utilise all that technology has to offer, we also want to prepare children for the increasing dangers that they may face. Therefore, online safety is a crucial part of our curriculum. Alongside an Online Safety unit through pupil's computing lessons, we also take part in National Safer Internet Day in February. At Glenthorne, we promote the SMART E-Safety rules and children are confident with who to go to if they have concerns. We believe that online safety is part of our daily lives and we do not restrict it to computing lessons. Key Stage Two have students from each year group that have been nominated to be part of an Online Safety Digital Leader Team.

Inclusion

At Glenthorne Community Primary School, we aim to enable all children to achieve their full potential. This includes children of all abilities, social and cultural backgrounds, those with disabilities, children with English as an additional language and children at SEN Support and an EHCP. We place particular emphasis on the flexibility technology brings to allowing pupils to access learning opportunities, particularly pupils with SEN and disabilities.

Assessment

We assess the children's work in computing by making informal judgements as we observe and talk to the children during lessons. Each class has an assessment folder where each unit is broken down into specific targets (see appendix 1 for

assessment grid example). These informal judgements are recorded in the assessment folder using coloured stars in line with school. Teachers will use these to demonstrate a child's understanding in a lesson. Work is then either printed off, saved into their year group folder or saved on Purple Mash. The folders and work can be accessed by the subject leader to monitor. At the end of the unit, we make a summary judgement of the work for each pupil as to whether they have yet to obtain, obtained or exceeded the expectations of the unit.

Monitoring and Reviewing

Monitoring is the responsibility of the subject leader. Monitoring will be achieved through:

- Assessment folder monitoring
- Work scrutiny
- Pupil Voice
- Teacher voice

Staff Roles and Responsibilities

Computing Subject Leader:

The designated teacher(s) should:

- Ensure the development of a scheme of work for the Computing curriculum.
- Promote the integration of Computing within teaching and learning activities across different subject areas, develop and monitor the contribution of different subjects to its cross-curricular use.
- Manage the provision and deployment of resources and give guidance on classroom.
- Act as a contact point between the school and support agencies.
- Provide limited technical expertise, drawing on experience from CPD.
- Contact technical and other consultancy support where appropriate; and
- Coordinate the evaluation and review of the school's Computing policy.
- Monitor class computing folders.

Class Teachers:

It is the responsibility of each class teacher to ensure that their class is taught all elements of the computing curriculum as set out in the National Curriculum programme of study.

Technician:

- Conducts routine scheduled maintenance/ updated on systems
- Fixes errors/ issues with hardware and software, prioritising as needed
- Sets up new hardware and installations
- Supports Computing leader
- Maintains network connectivity and stability
- Checks school filtering, monitoring and virus protection

Security and Safeguarding

Pupils and staff have to agree to the Acceptable Use Policy each time they log on to a computer. There are filtering and monitoring systems in place for all our online access. Furthermore, we understand the importance of Online Safety at Glenthorne and we are a National Online Safety certified school. Staff annually partake in the annual training updates on National Online Safety and parents are invited too. See our Online Safety Policy.

Health and Safety

The school is aware of the health and safety issues involved in children's use of ICT and computing. All staff should visually check electrical equipment before they use it and take any damaged equipment out of use. Damaged equipment should then be reported to the computing technicians.

- Children should not put plugs into sockets or turn switches on
- leads should be kept safely behind equipment
- liquids must not be taken near the computers

Appendix 1

Year 2 Computing Assessment

Autumn 1 Coding

1) To be able to explain what coding is and read and explain blocks of code
2) Able to write a program to make a character move
3) Able to write a program to stop movement and detect when objects collide
4) Able to use repeat and timer commands
5) Able to explain what debugging means and debug simple programs
6) To explore the possible actions of different types of objects

	1	2	3	4	5	6	End of unit