Glen Hills Primary School Computing Policy

'A high-quality computing education equips pupils to use computational thinking and creativity to understand and change the world.'

Computing programme of Study, DfE, 2013

Intent

At our school we want pupils to be masters of technology and not slaves to it. Technology is everywhere and will play a pivotal part in students' lives, Therefore, we want to model and educate our pupils on how to use technology positively, responsibly and safely. We want our pupils to be creators not consumers and our broad curriculum encompassing computer science, information technology and digital literacy reflects this. We want our pupils to understand that there is always a choice with using technology and as a school we utilise technology to model positive use. We recognise that the best prevention for a lot of issues we currently see with technology/social media is through education. We recognise that technology can allow pupils to share their learning in creative ways. We also understand the accessibility opportunities technology can provide for our pupils. Our knowledge rich curriculum has to be balanced with the opportunity for pupils to apply their knowledge creatively which will in turn help our pupils become skillful computer scientists. We encourage staff to try and embed computing across the whole curriculum to make learning creative and accessible. We want our pupils to be fluent with a range of tools to best express their understanding and by Upper Key Stage 2, children have the independence and confidence to choose the best tool to fulfil the task and challenge set by teachers.

Implementation

At Glen Hills we recognise the engagement computing can bring to subjects as a result the Computing curriculum is embedded throughout our curriculum, with classes having access to our 40 iPads and 40 Chromebooks which enable children to use computing skills across the wider curriculum. We have access to a number of learning platforms which aid this such as: Education City; Purple Mash and Mymaths. Each year group also has a timetabled computing session in our ICT suite allowing for explicit computing teaching. Closely following the National Curriculum, our own curriculum is divided into three key areas: Computer Science; Information Technology and Digital Literacy.

We teach Computer Science using block based coding programmes such as Scratch; progressing to script based languages such as Python in Upper Key Stage 2 encouraging logical thinking, perseverance and creativity.

The Information Technology elements of our curriculum are taught using programs that have applications outside of school and into the children's futures. We begin by using simplified versions of web browsers; desktop publishing software and email services before progressing on to mainstream versions including web publishing.

The teaching of Digital Literacy is taught explicitly through our e-safety scheme of work and also discretely through our wider PSHE curriculum and our Routes to Resilience work. Our e-safety scheme of work follows the Education for a Connected World objectives.

We use resources and planning from a variety of sources. The planning is in line with the National Curriculum. This is used to aid teaching staff in their subject knowledge. Lessons are taught by class teachers. Children are given the opportunity to practise skills in a variety of ways and each lesson builds upon the previous skills, allowing them time to embed it. Different skills are recapped throughout and across the years, each time they are being built upon; allowing children to know more and remember more.

Each year the school dedicates a week to celebrating Safer Internet Day. Events like these help to embed our e-safety curriculum further.

We offer extra-curricular activities in Computing with the school offering a lunchtime Code Club where children can hone their creativity and programming skills using Scratch.

Assessments are based on teacher assessments and are recorded on Otrack against the SAS Computing document. Pupils are also given time to reflect on their learning and take part in self, peer and group feedback within the lesson.

Impact

We encourage our children to enjoy and value the curriculum we deliver. We will constantly ask the WHY behind their learning and not just the HOW. We want learners to discuss, reflect and appreciate the impact computing has on their learning, development and well being. Finding the right balance with technology is key to an effective education and a healthy life-style. We feel the way we implement computing helps children realise the need for the right balance and one they can continue to build on in their next stage of education and beyond. We encourage regular discussions between staff and pupils to best embed and understand this. The way pupils showcase, share, celebrate and publish their work will best show the impact of our curriculum. We also look for evidence through reviewing pupil's knowledge and skills digitally through tools like Google Drive and observing learning regularly. Progress of our computing curriculum is demonstrated through outcomes and the record of coverage in the process of achieving these outcomes.

British Values within Computing Children at Glen Hills Primary School demonstrate the following values whilst learning about Computing by:

Democracy

- Listening to everyone's ideas in order to form a majority.
- Working as part of a team and collaborating to use computing devices effectively.

Rule of Law

- Developing knowledge of lawful computing behaviours.
- Demonstrating respect for computing laws. Individual Liberty
- Taking responsibility for our own computing behaviours.
- Challenging stereotypes and bias.
- Exercising rights and personal freedoms safely through knowledge of E-safety. Respect and

Tolerance

- Showing respect for other cultures when undertaking research using computing devices.

- Providing opportunities for pupils of all backgrounds to achieve in computing.

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. Recording devices can support children to develop their communication skills. This is particularly useful with 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 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.

Online Safety·

- A progressive online safety curriculum ensures that all pupils are able to develop skills to keep them safe online.
- Opportunities for learning about online safety are part of PSHE and reinforced whenever technology is used.

- SMART rules are followed in school and reinforced in the classroom. Parents and pupils sign an acceptable user policy at parent's evening.
- The school supports the international Safer Internet Day each February and provides opportunities for pupils to consider cyberbullying as part of Anti-Bullying week in the autumn term.
- Opportunities are taken whenever possible to reinforce messages of a healthy lifestyle.
- The school has an online safety policy in place that details how the principles of online safety will be promoted and monitored.
- Cyber bullying incidents are reported on CPOMS to ensure staff are informed to aid monitoring.
- Year 6 pupils take part in the Leicestershire Year 6 online safety survey. Results are analysed and trends monitored and acted upon.

Monitoring

- The impact of the Computing curriculum is monitored regularly by the Computing subject leader through pupil discussion, samples of work and discussion with teachers and an electronic portfolio.
- Systematic monitoring of all threads of Computing informs the subject leader and school development plan
- The Computing leader conducts regular audits of the training needs of teachers and teaching assistants to improve their subject knowledge and confidence. Requests for training in Computing can be part of individual teacher's performance management plan

Equal Opportunities

- The school maintains its policy of equal opportunities as appropriate for Computing.
- Computers and related technology are made available to all pupils regardless of gender, race or abilities.
- The class teacher differentiates work by task, resource or support, to ensure the individual needs of more able and SEN pupils are met.
- The school is aware that not all pupils have the same access to computers at home and the school offers loans of school laptops to children

Resources

- The school has a range of resources to support the delivery of the Computing curriculum, the Early Years Framework and learning across all areas of the National curriculum. We maintain an audit of resources which is updated annually.
- Online tools such as Purple Mash, Education City, Google Classrooms, MyMaths are part of the experience of pupils.
- The Computing subject leader keeps up to date with new technologies and reviews the school's provision, as well as maintaining the existing resources in partnership with the school's technician.
- Hardware and software faults are logged by the class teacher in a book in the ICT suite
- The Computing Action Plan expresses the school's priorities for future expenditure and is reviewed by the Computing subject leader, governors and senior management who consider its impact on all learning.

- Governors and the School Business Manager ensure that they achieve value for money by implementing the principles of best value in evaluating, planning, procuring and using technology.
- Old resources are disposed of in line with disposal policy and the school's data protection policy where these are applicable.

Roles and responsibilities

- The school community works together to ensure the implementation of the Computing policy.
- The subject leader is responsible for monitoring curriculum coverage and the impact of learning and teaching; and assists colleagues in its implementation.
- Subject leaders in other curriculum areas are responsible for recognising the links between computing and English, Mathematics, Science and foundation subjects; and planning to use these to support learning across the school.
- The Computing subject leader provides an annual report to governors on the impact of the Computing curriculum and how resources are being effectively deployed. Governors may include Computing in their learning walks around the school.
- The class teacher is responsible for delivering an effective Computing curriculum and integrating this into their planning for other subject areas where this is appropriate.
- The school technician is responsible for the maintenance of computers, printers, the school network and keeping software up to date. The subject leader liaises with the technician to ensure that the systems are running efficiently.

Health and safety

- Age appropriate class and safety rules are displayed in the learning environment.
- Equipment is maintained to meet agreed safety standards.
- From Foundation Stage, pupils are taught to respect and care for technology equipment.
- Further guidance can be found in the school's health and safety policy.

This policy will be reviewed annually by the Computing subject leader and leadership team and shared with the school community.

Policy	*Computing*
Reviewing Committee	*Headteacher 10/12/21*