High Green Primary School

STATEMENT FOR LEARNING

Computing

INTENT

In helping to prepare our children for their future, Computing and the skills associated with the subject are listed as some of the top 15 requirements of the future work force*: analytical and critical thinking, innovation, active learning, complex problem solving, creativity, originality, initiative, technology use, monitoring and control, technology design and programming.

The top four emerging roles for 2025* include Cloud Computing, Content Production, Data & AI, Engineering.

Utilising strong cross curricular links between Maths, Science, Design and Technology and Art, we intend for Computing to prepare our children for the next stage in their education:
to give them the opportunities, responsibilities, and experiences they need to be successful in later life.

Context

On entry, our children mostly come equipped with a basic understanding of technology. However, this tends to be limited to tablets with very little experience of PC's.

Our ambition is to…

- Extend children's skills to be able to access a range of hardware and software and be able to see for themselves the benefits and drawbacks of different forms of technology.
- Give all children the skills required to progress with confidence in a range of applications to allow them to continue to explore, learn and excel.

** World Economic Forum: Future of Jobs Report 2020*

IMPLEMENTATION

In EYFS the children will:

Although the Early Learning Goal for technology has been removed from the EYFS curriculum, children will:

- Develop motor skills to use simple tools
- Explore how things work
- With adults, use devices to find out about an area of interest.
- Use technology to learn in other areas of the curriculum, such as phonics.
- Use devices such as music players and Beebots.

In Key Stage 1 the children will:

- Follow the Purple Mash scheme of work.
- Use technology in other subjects to enable pupils to make connections and apply understanding across all areas of learning.
- Create and debug simple programs and use logical reasoning to the behaviour of simple programs.
- Be shown how to use a range of technology purposefully to create, organise, store, manipulate and retrieve digital content as well as recognise common uses of information technology beyond school.
- Be taught to 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.
- Typing skills through Purple Mash.

In Key Stage 2 the children will:

- Follow the Purple Mash scheme of work.
- Use technology in other subjects to enables pupil to make connections and apply understanding across all areas of learning.
- 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, use logical reasoning to explain how some simple algorithms work and correct errors in algorithms and programs.
- Understand computer networks, including the internet, and the opportunities they offer for communication and collaboration.
- Use search technologies effectively, learn to appreciate how results are selected and ranked, and be discerning in evaluating digital content.
- Be taught to select, use and combine a variety of software (including internet services) on a range of digital devices to create a range of programs, systems and content that accomplish given goals.
- Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact.
- Word processing skills to display cross-curricular work effectively.
- Typing skills through Typing Club.

The Purple Mash scheme of work is designed to build upon previous learning, so that skills are built on progressively. For example, each year group has a coding unit, which builds upon the skills learnt from the previous year group. The use of Purple Mash provides a consistent platform for children to learn the skills of computing, whist also providing the necessary support for teacher's subject knowledge. The skills learnt through Purple Mash are used to support the use of ICT in other subjects when appropriated.

Assessment is through regular marking/feedback of 2Do tasks on Purple Mash. They are assessed after each one is completed and feedback can be left, along with rewards through the system. Assessment for learning grids are completed after each lesson, and after each unit is completed. End of Term Pit Stops monitor coverage and ensure that any gaps are filled the following term.

In a digital world, the importance of having good typing skills is emphasised. In KS1, basic typing skills are taught through Purple Mash. In KS2, children progress through a series of typing lessons and activities on TypingClub. These skills are then applied when using ICT in any subject in the curriculum.

SEND pupils are supported in a variety of ways to allow them to achieve. Support from peers, teachers and teaching assistants, along with flash cards, prompt cards and repetition of teaching points enable all to achieve.

IMPACT

How does Computing support SMSC?
Computing provides opportunities to for children to work collaboratively, either in pairs or small groups. Computing skills can be shared and pooled to create a desired outcome. The Purple Mash virtual display board creates a secure, online environment for children to share, like and comment on individuals' learning, allowing for reflection and self-evaluation. Computing allows children to understand the benefits of relationships on a global scale.

How does Computing support personal development?
Technology allows all children to achieve success. Barriers are not presented in the same way as other subject, for example handwriting. As technology crosses into all subjects, children can use it to support their own interests and passions.
Children are supported in basic skills of computing, including keyboard skills, research skills and how to interpret information on the internet to ensure that all children can access technology at their own level.
Our computing curriculum empowers children to demonstrate knowledge and skills where traditional methods may prove to be a barrier. Everyday tasks become more accessible to all children. The use of Purple Mash as our main vehicle for learning means that children can complete a variety of activities in a safe and child-friendly environment. Children have the opportunity to challenge themselves and tackle problem solving activities independently and with others. Computing allows children to enjoy increased autonomy over their own learning and make their own decisions to complete tasks.
Children have personal logins for all digital platforms used, allowing families to work with their children at home. The use of digital communication platforms such as SeeSaw facilitates parents and school working in partnership to support their child's learning.

How is Computing assessed and monitored?

Substantive knowledge in the computing curriculum is delivered through weekly computing lessons, with children working either independently or collaboratively to practice these skills. Disciplinary knowledge and computing fluency are gained by the application of these skills for use in different units and other subjects.

- On-going assessment for learning is a continual process to support children in narrowing gaps and making progress.
- Assessment is through regular marking/feedback of 2Do tasks on Purple Mash. They are assessed after each one is completed and feedback can be left, along with rewards through the system.
- Lessons/activities may be adapted in light of on-going assessments.
- Summative assessments are recoded at the end of each project via the Purple Mash platform.
- Subject leaders carry out data analysis of the summative assessments to support further enquiries and action plans to ensure continued development and improvements.

- Bi-annual **Deep Dives** – subject team: children's voice, children's work, data analysis, coverage. action planning, report/presentation to governors
- Bi-annual **light touch reviews** – subject leader & deputy; children's work, pupil voice, review of action plan.