Hillstone Computing Policy

Reviewed September 2025

The use of computers and computer systems is a fundamental part of the National Curriculum and understanding how they work is an essential life skill. In an increasingly digital world, there is a wide range of software, tools and technologies available to support communication, collaboration, creativity and the creation of digital content. At Hillstone Primary School, we believe all pupils are entitled to a broad and balanced computing education. This is delivered through a structured and progressive approach that develops understanding of computer systems, effective use of information technology, and the skills needed to become digitally literate and fully engaged in modern society.

Aims

The school aims to cover the curriculum under three strands:

Computer Science
- To enable children to become confident coders on a range of devices.
- To create opportunities for collaborative and independent learning.
- To develop children's understanding of technology and how it is constantly evolving.

Digital Literacy
- To enable a safe computing environment through appropriate computing behaviours.
- To allow children to explore a range of digital devices.
- To promote pupils' moral, social and cultural development.

Information Technology
- To develop ICT as a cross-curricular tool to enhance and enrich learning and progression.
- To promote learning through the development of thinking skills.
- To enable children to understand and appreciate their place in the modern world.

In order to develop the Computing and ICT capability and understanding of each child we will provide through our planning:
- Computing through all three strands taught within the classroom.
- Continuity throughout the school to ensure that experience and skills are developed in a cohesive and consistent way.
- Access to netbooks within class
- Experience of a variety of well-planned, structured and progressive activities.
- Experience cross-curricular links to widen children's knowledge of the capability of computing including safe use of the Internet and other digital equipment.
- Opportunities for children to recognize the value of computing and ICT in their everyday lives and their future working life as active participants in a digital world. By doing this we will fulfil the requirements of the National Curriculum.

Objectives

Early Years

Computing in early years focuses on play-based learning, building foundational skills like problem-solving, sequencing, and digital literacy through everyday technology, programmable toys, and role-play items, all under the "Understanding the World" curriculum area.

Key Stage One and Two

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 a sequence of instructions.
- Write and test simple programs.
- Use logical reasoning to predict and computing the behaviour of simple programs.
- Organise, store, manipulate and retrieve data in a range of digital formats.
- Communicate safely and respectfully online, keeping personal information private, and recognise common uses of information technology beyond school.

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.

Hillstone Primary school uses a bespoke curriculum to teach children these objectives. Most lessons are taken from the 'Teach Computing' scheme. A curriculum has been built, which progressively builds computer science, digital literacy and information technology skills as the children progress through the school (see appendix 1). The scheme fully meets all of the requirements of the National Curriculum. The subject leader has provided teaching plans, which are supported with detailed lesson plans and PowerPoint files to support class teachers. It is ideal for the non-specialist teacher. Children will experience a minimum of 6 computing lessons per term.

Resources and access

The school acknowledges the need to continually maintain, update and develop its resources and to make progress towards consistent, compatible computer systems by investing in resources that will effectively deliver the objectives of the National Curriculum and support the use of IT, computer science and digital literacy across the school. Computing network infrastructure and equipment has been sited so that:

- Every classroom from EYFS to Y6 has an interactive whiteboard with sound. Every teacher has a laptop that is connected to the school network.
- There is a bank of netbooks available to each year group Y1-Y6. These are available for use throughout the school day as part of computing lessons and for cross-curricular use.
- The school has a full-time computing technician available for support.

Assessment and record-keeping

Teachers assess progress through observations and evidence. Key objectives to be assessed are taken from the National Curriculum to assess computing each half-term. Assessing computing is an integral part of teaching & learning and key to good practice. Assessment should be process orientated - reviewing the way that techniques and skills are applied purposefully by pupils to demonstrate their understanding of computing concepts. As assessment is part of the learning process, it is essential that pupils are closely involved. Assessment can be broken down into:

- Formative assessments are carried out during and following short focused tasks and activities. They provide 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' ability and provide a best fit 'level'. Independent tasks provide a number of opportunities and scope for pupils to demonstrate their capability throughout the term. There should be an opportunity for pupil review and identification of next steps. We assess the children's work in computing by making informal judgments as we observe the children during lessons. Once the children complete a unit of work, we make a summary judgment of the work for each pupil as to whether they have yet to obtain, obtained or exceeded the expectations of the unit.

Pupils with Special Educational Needs
It is our policy to ensure that all children, regardless of race, class or gender, should have the opportunity to develop computing and ICT capability. We aim to respond to children needs and overcome potential barriers for individuals and groups of children by:

- Ensuring that all children follow the scheme of learning for Computing.
- Providing curriculum materials and programmes, which are in no way class, gender or racially prejudice or biased.
- Providing suitable challenges for more able children, as well as support for those who have emerging needs.
- Responding to the diversity of children's social, cultural and ethnographical backgrounds.

- Overcoming barriers to learning through the use of assessment and additional support.
- Movement or physical difficulties by developing computing skills through utilising their individual strengths.

The role of the Subject Leader

There is a computing subject leader who is responsible for the implementation of computing policy across the school. Their role is to:
- Offer help and support to all members of staff (including teaching assistants) in their teaching, planning and assessment of computing.
- Maintain resources and advise staff on the use of digital tools, technologies and resources.
- Monitor the children's progression in computing, looking at examples of work of different abilities.
- Keep up-to-date with technological developments and communicate information with colleagues.
- Attend appropriate in-service training.
- Have enthusiasm for computing and encourage staff to share this enthusiasm.
- Liaise with all members of staff on how to reach and improve on agreed targets.
- Help staff to use assessment to inform future planning.

The role of the class teacher
Individual teachers will be responsible for ensuring that pupils in their classes have opportunities for learning computing and using their knowledge, skills and understanding of computing across the curriculum. They will plan and deliver the requirements of National Curriculum for Computing to the best of their ability. We set high expectations for our pupils and provide opportunities for all to achieve. The class teacher's role is a vital role in the development of computing throughout the school and will ensure continued progression in learning and understanding and create effective learning environments.

Safeguarding Children: E-safety
At Hillstone Primary School, we believe that the use of ICT in schools brings great benefits. To live, learn and work successfully in an increasingly complex and information-rich society, our children must be able to use technology effectively. The use of these exciting and innovative technology tools in school and at home has been shown to raise educational standards and promote pupil achievement. Yet at the same time we recognize that the use of these new technologies can put young people at risk within and outside the school. E-safety is taught throughout the computing curriculum and also as discrete lessons as part of PSHE. The school's plans for PSHE and Computing include e-safety sessions. The school will also take part in and deliver lessons and activities as part of Safer Internet Day (https://www.saferinternet.org.uk). Further information is available to parents and carers via the school website's Safeguarding Policies and Documents section. The use of IT and computing will be in line with the school's 'acceptable use policy'. All staff, volunteers and children must sign a copy of the schools AUP. Parents will be made aware of the 'acceptable use policy' at school entry. All pupils and parents will be aware of the school rules for

responsible use of IT and computing and the internet and will understand the consequence of any misuse.

Appendix 1

	YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5	YEAR 6
AUTUMN 1	Programming A – moving a robot	Programming A – robot algorithms	Programming A – sequencing sounds	Programming A – repetition in shapes	Programming A - iProgram	Programming A – variables in games
AUTUMN 2	Creating media – digital writing	Creating media – digital photography	Creating media – desktop publishing	Creating media – word processing	Creating media – Intro to vector graphics	Creating media - 3D modelling
SPRING 1	Computing systems and networks - Technology around us	Computing systems and networks – IT around us	Computing systems and networks - Connecting computers	Computing systems and networks – the internet	Computing systems and networks - Systems and searching	Computing systems and networks – communication and collaboration
SPRING 2	Data and information - Grouping data	Data and info – pictograms	Data and info - Branching databases	Data and information – cryptography	Data and info - Flat-file databases	Data and information – Intro to spreadsheets
SUMMER 1	Creating media - Digital painting	Creating media – digital music	Creating media – iAnimate	Creating media – presentation	Creating media - Video production	Creating media - iWeb
SUMMER 2	Programming B – programming animations	Programming B – programming quizzes	Programming B – events and actions in programs	Programming B – repetition in games	Programming B – selection in quizzes	Programming B – sensing movement

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