

Juniper Hill School

Computing Policy



Kindness Enjoyment Achievement

Written: March 2021
Review Date: March 2028

Reviewed: March 2026

Computing is an integral part of the National Curriculum and a key skill for everyday life. Computers, tablets, programmable robots, digital devices and cameras are some of the tools pupils use to create, acquire, organise, store, manipulate, interpret, communicate and present information. At Juniper Hill School, we recognise that pupils need access to high-quality hardware and software, along with a structured and progressive curriculum that enables them to develop the skills, knowledge and understanding required to use technology effectively and safely.

Intent

Children will be equipped to develop the confidence, curiosity and digital competence needed to participate fully in an increasingly technological world. Children will be given opportunities to develop, test and innovate their ideas through creative and purposeful use of digital tools. Computing at Juniper is designed to empower pupils to be independent, reflective and responsible users of technology who can thrive in a future increasingly dependent on computing.

Introduction

Our school vision is to empower our community to have the courage to make a difference in the world, teaching children to be open to working with tools and new technologies, and to work together to enable everyone to achieve their goals. Therefore, our Computing Policy is underpinned by our three aims:

Kindness - we encourage children to be kind to each other; developing collaborative skills and nurturing positive attitudes to teamwork.








Enjoyment - enjoyment is at the core of learning and through exciting teaching, computing gives the children opportunities to explore technology and to think critically and creatively.

Achievement – we want everyone to achieve all they can, by engaging our pupils with quality teaching and learning opportunities.

Aims:

The Computing Subject Leader and leadership team support staff to deliver high-quality computing education. A high-quality computing education equips pupils to use computational thinking and creativity to understand and change the world of Computing; it has links with Mathematics, Science, Design and Technology. Pupils will develop a growing awareness of how technology is used in the world around them and of the benefits that it provides whilst also ensuring they know how to navigate it safely.

We expect our pupils to:

-  understand and apply the fundamental principles and concepts of computer science
-  understand the wider applications of computer systems and communication technology in society
-  develop independent and logical thinking through evaluating, reasoning, decision making and problem-solving imaginatively and creatively
-  develop the skills to work independently and collaboratively
-  develop the skills and knowledge to be aware of how to stay safe whilst online
-  become responsible, competent, confident and creative users of information and communication technology
-  be critical and cautious online; understanding the dangers and risks that surround them in a connected world

Curriculum








Planning for Computing is implemented using the National Curriculum Programme of Study for Computing. Teachers use the Teach Computing curriculum to ensure clear progression and full coverage of knowledge and skills across the school. This is further supported by our Computing Skills and Knowledge progression documents, which guide planning and ensure learning builds securely over time. Each year group adapts planning to ensure it is culturally relevant and appropriate for pupils' level of study. Teachers also refer to the Education for a Connected World Learning Outcomes to ensure that the strands of online safety are taught continuously throughout the year.

EYFS

In Early Years, during the second Autumn term, technology is embedded throughout different areas of learning, supporting the development of children's confidence and competence in using technology purposefully. Opportunities are provided for pupils to engage with technology indoors, outdoors, and within role-play contexts during both child-initiated and adult-led activities. Classroom laptops give children access to age-appropriate, educational software and games, enabling them to apply and extend their learning in a safe and supportive environment and also practise sounds, letter recognition and typing. These experiences are designed to help pupils progress towards the relevant Early Learning Goals (ELGs) by fostering curiosity, problem-solving skills, and responsible use of technology









Key stage 1

Pupils will be taught to:

-  Understand what algorithms are, and how they are implemented.
-  Create and debug simple programs.
-  Predict the behaviour of simple programs.
-  Create, organise, store, manipulate and retrieve digital content.
-  Recognise common uses of ICT beyond school.
-  Use technology safely and respectfully,
-  keeping personal information private, and to identify where to go for help and support when they have concerns online.

Key stage 2

Pupils will be taught to:

-  Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems, and solving problems.
-  Use sequence, selection, and repetition in programs.
-  Work with variables and various forms of input and output.
-  Explain how some simple algorithms work, and how they can detect and correct errors.
-  Understand computer networks, how they can provide multiple services, and the opportunities they offer for communication and collaboration
-  Use search technologies, understand how results are selected and ranked, and be able to critically evaluate digital content.
-  Select, use and combine a variety of software on a range of devices to design and create programs, systems and content that accomplish specific goals.
-  Use technology safely, respectfully and responsibly, recognise acceptable behaviour and identify a range of ways to report online concerns.

Implementation.

At Juniper we have adopted the DFE supported NCCE Teach Computing scheme. This ensures coverage in line with The National Curriculum. Teaching and learning should facilitate progression across all key stages within the strands of digital literacy, Information Technology and Computer Science.

Children have access to resources, including a variety of hardware and software, which aid in the acquisition of skills and knowledge, and they have opportunities to develop their knowledge and skills of digital systems and their applications.

Teaching and learning will facilitate progression across the key stages within the strands. Within the lessons children will be encouraged to develop, test and innovate. The teaching will provide opportunities for exploring and responding to online safety and making positive contributions online as outlined in the Education for a Connected World document. This is further embedded through PSHE and Life Skills.

Lessons are taught as units in the computer suite or in the classroom.

Assessment

Assessment opportunities are detailed in each lesson plan. The learning objective and success criteria are introduced at the beginning of each lesson and then reviewed at the end. Learners are invited to assess how well they feel they have met the learning objective. Progression of skills documents aid teacher's assessment at the end of units. Teachers record their assessments on the schools TAFs and then upload these to Insight so that they can be reviewed by the Computing Lead.

Teachers use open ending questions to challenge children's thinking and learning and pupils are encouraged to self-evaluate their and others' work in a positive supportive environment. Information is reported to parents via end of year reports.

Online Safety

Each unit from Teach Computing has clear opportunities for learning about safety online and these are linked to Education for a Connected World. Online safety is delivered as part of the Computing curriculum as well as PSHE and Life Skills and reinforced whenever technology is used. The school will support the International Safer Internet Day each February and provides opportunities for pupils to consider cyberbullying as part of Anti-Bullying weeks. Opportunities are taken whenever possible to reinforce messages of a healthy lifestyle.

Teaching responds to the needs of the children and as a result, some Year groups plan additional lessons to teach as and when situations arise.

Equal Opportunities, Inclusion, SEND

It is our policy to ensure that all children, regardless of race, class, or gender, have the opportunity to develop computing and ICT capability. Lessons are tailored so that all children can access the curriculum. Materials and programmes provided are not biased towards any class, race or gender. Teachers provide suitable challenges for more able children as well as support for those who have emerging needs.

British Values

We aim to demonstrate British values through our teaching of computing:

Democracy

- 🏠 Listening to everyone's ideas to form a majority or consensus
- 🏠 Working as part of a team and collaborating to use computing devices effectively

Rule of Law

- 🏠 Understanding the rules of law of computing behaviours
- 🏠 Demonstrating respect for computing laws

Individual Liberty

- 🏠 Taking responsibility for own behaviours
- 🏠 Challenging stereotypes and bias
- 🏠 Exercising rights and personal freedoms through knowledge of E-safety.

Respects and Tolerance

- 🏠 Providing opportunities for all pupils to achieve

Resources

We have a range of resources to implement the curriculum. The computer suite has a bank of 32 laptops. In addition, there are mini laptops, Ipads, tablets and programable toys such as Bee Bots and Micro:Bits. 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 technology support provider, Turn It On. The school Technician supports the technical infrastructure and hardware.

Monitoring

Working with the Senior Leadership Team, the subject leader will monitor the standard of the children's work and the quality of teaching in computing. They are also responsible for evaluating the strengths and weaknesses in the subject and indicating areas for improvement. Data from end of year reports and TAFs is evaluated.




Roles and responsibilities

The Computing Leads are Rabia Butt and Isabel Stallwood. The Leads are responsible for raising the profile of Computing throughout the school and maintaining best practice. This job description is reviewed annually and covers the following aspects.

- 🏠 Leading the development of Computing within the school
- 🏠 Monitoring the subject's planning, teaching and learning
- 🏠 Helping raise standards
- 🏠 Providing teachers with support in the teaching of computing, including with subject knowledge and effective pedagogies
- 🏠 Monitoring and maintaining high quality subject resources
- 🏠 Keeping up to date with new developments in the subjects
- 🏠 Developing an annual action plan agreed with the Curriculum Lead and Headteacher
- 🏠 Monitoring the teaching of Online Safety across the school

 Meeting with the Curriculum Lead Governor

Health and Safety

-  Equipment is maintained to meet agreed safety standards and PAT tested annually.
-  From Foundation Stage, pupils are taught to respect and care for technological equipment.
-  Further guidance can be found in the school's health and safety policy

Impact

Children at Juniper Hill will become confident, courageous, and safe users of Computing. They will have a secure and thorough knowledge of the implications of technology and digital systems, be able to develop, test and innovate new ideas and will have the knowledge and skills to safely thrive in a world increasingly dependent on computing.