

Computing

Curriculum Intention

The intention of the Computing curriculum at Harvills Hawthorn Primary School mirrors the underpinning vision and mission shared by all at the school. Our vision intends for all pupils and staff to be the very best they can be while our mission challenges us to prepare our pupils for their future lives and enable them to be able to contribute positively to society.

Computing is significant contributing factor to the preparation of pupils for the next stages of their educational careers. The world around us is becoming increasingly digitalised and the pathways and careers of the future are likely to be heavily centred around being able to coherently navigate the digital world of computing, computer science, information technology and the use of digital media. In our locality, there are many careers available in these areas and it is expected that these opportunities will only compound in the future. It is, therefore, our duty to provide children with a robust Computing curriculum, which allows them to develop the basic skills of computational thinking. As well as preparing our children for a successful future in terms of career prospects and learning key skills needed to use technology to their advantage, it is also important that children at Harvills Hawthorn Primary School become digitally literate in order to keep themselves safe online. We believe that online safety is as important a thread of Computing as anything else. As technology develops and infiltrates all areas of our lives, our young people are exposed to more and more situations where there is potential for harmful interactions with others, cyberbullying and creating disparaging online footprints, which could negatively affect their futures.

Our policy aims to provide children with the very best opportunity to be digitally literate, confident, technology users who are equipped with the skills, knowledge and morals to thrive in modern day Britain.

Curriculum Implementation

At Harvills Hawthorn Primary School, we pride ourselves on the consistent approach to teaching and learning that can be observed across all phases of school. This is achieved through our commitment to cutting edge CPD and quality first teaching on a daily basis. Expectations of staff and pupils are high, resulting in good or outstanding progress in all phases. There is a universal understanding of what outstanding teaching, learning and assessment should entail. These strategies are consistently used throughout school and it is the expectation of leadership that all lessons will include a variety of these to enable learners to reach their full potential. Active learning is essential in all aspects of the lesson. All staff use the same terminology so that learners develop a knowledge and understanding of the different ways they learn.

At Harvills, we believe outstanding teaching, learning and assessment must include the following:

1. Challenge for all
2. Collaborative learning
3. Assessment for learning
4. Questioning
5. Progression within lessons and books
6. Learning behaviours

We are working hard to promote our pupils' English and ensure that they all achieve to the very best of their ability. Pupils are encouraged to read widely and often.

English is fundamental to all subjects. Consequently, we believe that all stakeholders have a role to play in supporting and developing our pupils' English skills to ensure they can communicate effectively in today's society. All children are expected to follow our school's non-negotiables for presentation. This includes a focus on learning to write in the cursive script.

Computing at Harvills Hawthorn Primary School

At Harvills Hawthorn Primary School we pride ourselves on the consistent approach to teaching and learning that can be observed across all phases of school. This is achieved through our commitment to cutting edge CPD and quality first teaching on a daily basis. Expectations of staff and pupils are high resulting in good or outstanding progress in all phases. There is a universal understanding of what outstanding teaching, learning and assessment should entail. These strategies are consistently used throughout school and it is the expectation of leadership that all lessons will include a variety of these to enable all learners to reach their full potential. Active learning is essential in all aspects of the lesson. All staff use the same terminology so learners develop a knowledge and understanding of the different ways they learn.

At Harvills, we believe outstanding teaching, learning and assessment must include:

1. Challenge for all
2. Collaborative learning
3. Assessment for learning
4. Questioning
5. Progression within lessons and books
6. Learning behaviours

In Computing, lessons will be delivered either discretely or in a cross-curricular fashion through other subjects where it fits well into the subject.

The discrete lessons will usually be centred around the teaching of computer science skills.

In Key Stage 1, children will be taught the following skills during these discrete lessons:

- To understand what algorithms are; how they are implemented as programs on digital devices and that programs execute by following precise and unambiguous instructions.
- To create and debug simple programs
- To use logical reasoning to predict the behavior of simple programs

In Key Stage 2, children will be taught the following skills during discrete lessons:

- To design, write and debug programs that accomplish specific goals, including controlling
- To simulate physical systems; solve problems by decomposing them into smaller parts
- To use sequence, selection, and repetition in programs; work with variables and various forms of input and output
- To use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs
- To 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

These skills will usually be delivered through the means of the online-based resource, *Discovery Coding*. This resource delivers specific lessons which meet the needs of the curriculum while supporting staff with their subject knowledge and delivery through dedicated tutorials, lesson plans and simple formatting and interfaces.

The other areas of the curriculum will be delivered in a cross-curricular fashion where possible. This may include using word processing to write reports in English or Humanities lessons, spreadsheet software in Mathematics or multimedia software in Art or Design and Technology. Furthermore, e-

safety elements will be taught and revisited whenever children are using technology and then more explicitly during dedicated Safety Weeks which are distributed throughout the calendar year.

In Key Stage 1, children will be taught how to:

- 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.

In Key Stage 2, children will be taught how to:

- use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content
- select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information
- use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact.

It is expected that staff cover these objectives throughout the academic year and evidence their coverage through the online storage of data on the *Discovery Coding* website, on the school *Google Drive* system, throughout images and/or videos taken and uploaded to online-based folders or through the use of the *SeeSaw* app on the class teachers' iPads. This evidence should showcase the processes and outcomes of the children in Computing throughout the year.

At termly intervals throughout the year, teachers are expected to assess the attainment of these objectives using the given assessment pro forma. These assessments will generate particular stages, which will indicate what curriculum year the child is working at, as well as whether they are emerging, developing, or secure with the knowledge and skills within this year group.

Impact

We aim for the children of Harvills Hawthorn Primary School to leave our care with a love for the use of technology, a confident grasp of how to manipulate technology for a variety of purposes and have a strong moral compass which guides them to make the right choices when using the internet for social or recreational reasons. Furthermore, we hope they respect the dangers of the internet, have strategies to cope with uncomfortable content and know where to turn to in times of need.

As well as this, we hope children will have achieved the curriculum aims (as stated above) while enjoying and exploring their own interests in these areas where appropriate.

Ultimately, we want the children to leave after Year 6 with the capabilities and awareness to be able to not be limited in their future prospects and ambitions by a lack of technological awareness and instead possess the traits, knowledge, skills and enthusiasm to use technology to their benefit in their educational career and beyond.