BILSTON CHURCH OF ENGLAND PRIMARY

Through the teaching of Computing, the children are equipped with all the necessary skills, knowledge and vocabulary that will enable them to become independent learners whilst maximising their creativity. Through using a variety of software and hardware the children will be confident for the future where technology continues to play a part in everyday living.

Key Stage 1 National Curriculum POS

Pupil 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.

Key Stage 2 National Curriculum POS

Pupil should be taught to:

- ➢ 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; work with variables and various forms of input and output
- ➢ use logical reasoning to explain how some simple algorithms work 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
- ➢ 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.

Ambition

To ensure school meets the requirements of the National Curriculum and to enable all children to succeed in computing right from Foundation Stage children are provided with opportunities to access technology. However, formal assessment and the teaching of Key Skills begins in Year 1 through to Year 6. Children are assessed against their targets in our in sight program.

As Multimedia is such a diverse strand that includes a combination of different content forms such as text, audio, images, animations, video and interactive content. These skills have been broken down to ensure an equal balance of all areas are taught throughout each key stage. However, in all year groups there is an emphasis on Online Safety and Programming elements. Online safety is taught in each lesson so it's a clear message across each year group and any issues that may arise can be tackled in this time.

	EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Autumn 1	Exploring Hardware	Online Safety – online relationships Word Processing	Online Safety – online relationships Art	Online Safety – online relationships Word Processing	Online Safety – online relationships Programming (Gibbon)	Online Safety – online relationships Broadcasting (Pod casting voice memo and garagband)	Online Safety – online relationships Programming (Micro:bits)
Autumn 2	Introduction to data	Online Safety – bullying and privacy Algorithms (bee bots)	Online Safety – bullying and privacy Word Processing	Online Safety – bullying and privacy Programming (chimp)	Online Safety – bullying and privacy Word Processing	Online Safety – bullying and privacy Art (procreate)	Online Safety – bullying and privacy Design
Spring 1	All about instructions	Online Safety – Managing online information. Digital Art	Online Safety – Managing online information. Algorithms (blue bots)	Online Safety – Managing online information. Publishing	Online Safety – Managing online information. Data	Online Safety – Managing online information. Music	Online Safety – Managing online information. Word Processing
Spring 2	Digital Arts	Online Safety – health, wellbeing and lifestyle Programming (scratch junior)	Online Safety – health, wellbeing and lifestyle Photography	Online Safety – health, wellbeing and lifestyle Animation (Koma koma)	Online Safety – health, wellbeing and lifestyle Design	Online Safety – health, wellbeing and lifestyle Word Processing	Online Safety – health, wellbeing and lifestyle Music and Video special project
Summer 1	Programming	Online Safety – self image and identity Music	Online Safety – self-image and identity Programming (scratch junior)	Online Safety – self-image and identity Algorithms (Pro bots)	Online Safety – self-image and identity Art	Online Safety – self-image and identity Programming (crumbles)	Online Safety – self-image and identity Publishing (web page)
Summer 2	Using a computer	Online Safety – online reputation Data	Online Safety – online reputation Data	Online Safety – online reputation Music	Online Safety – online reputation Publishing	Online Safety – online reputation Animation (stop motion)	Online Safety – online reputation Art (Procreate)

Staff have one hour per week timetabled to deliver Key Skills linked to each area throughout the year. Once these skills have been taught the intention is that they can be applied to other curriculum areas. Although skills lessons are set to ensure all areas are covered, Year group teams work together to find exciting and innovative ways to teach these skills and embed them across the other curriculum areas to allow for creativity and innovation and to ensure implementation occurs. We cover 3 main aspects:

Computer Science
Computer Science includes teaching children how to design, write and debug programs, controlling physical

systems, understanding what algorithms are and how to use variables.
This is covered in our programming unit we have in each year group.

Information Technology
Information Technology teaches pupils how to use a range of devices and software to create, organise and store digital content.
This is covered in each area of our computing curriculum with the range of software and apps we use in school.

Digital Literacy
Digital Literacy is one of the most important aspects of computing as it includes Internet Safety.

Keys Skills and what is covered:

Online Safety – The principles of keeping safe online when in school or at home. We also promote this through family learning sessions to ensure parents are on board and share school principles.

Programming - This area provides the children with skills to control simple programmable toys to create their own programs using simple coding elements. It allows them to design, write and debug programs that accomplish specific goals, including controlling or simulating of physical systems and it encourages them to solve problems by decomposing them into smaller parts.

Animation: This area allows children to give life to characters combined with graphic design skills whilst incorporating colour, time and space. It is a multi-sensory teaching tool.

Broadcasting: This areas prepares children for the real world of media. They may present a TV show or radio advert linked to a curriculum topic. They will distribute video and audio through a range of media to enhance the curriculum.

Music: This are allows children to create digital music it may be by creating a jingle for a radio advert or a song for a whole school performance. They use musical software to create imaginative sound tracks for areas linked to the curriculum.

Film Making: This area allows children to use video editing software to create short film or trailers linked to their learning.

Digital Art: This allows children to use a range of apps and other digital technologies to enhance the creative or presentation process using special effects that are not possible to re-create by hand. Trick photography for example. This area may have crossover links with Digital Design .

Publishing and Presenting: Pupils use their developing skills to create presentation incorporating sounds, video and graphics. Pupils will also develop their skills to use a variety of safe search engines, whilst developing their understanding as to how to modify searches and create hyperlinks.

Digital Design: Pupils use their developing skills to create simple sketches, design building or objects, use photographic storyboards and allow pupils to change and manipulate images that they have taken or designed. This area may have crossover links with Digital Art.

Data Handling: Pupils use their developing skills to use databases, spreadsheets and to electronically create graphs.

Key Skills:

To ensure Key Skills are delivered and the progression is evident and appropriate to each year group and key stage, these lesson are provided for all staff to ensure adequate depth and breadth of the subject. A key skills lesson is timetabled for each class once per week from Year 1 to Year 6. Foundation Stage use technology during child initiated activities frequently throughout the school year.

Effective Subject Leadership:

The Computing lead Mrs R Harrison-Heath has an interest in and a passion for, the way technology can be used and taught in cross-curricular ways alongside skills lessons. Through regular reading, research and attendance of termly co-ordinator meetings provided by the authority new technologies and equipment are introduced regularly to create a fun and engaging curriculum. The coordinator also works closely with other subject leaders to ensure they have the resources required to deliver their subjects effectively whilst implementing the use of technology. EG: Science – Digital Microscopes/Log Boxes. Data is also analysed and shared regularly with staff and god practise is shared. Questionnaires are also sent out yearly to our:

➢ Children (to allow us to gain a pupil voice.)
➢ Parents (to ensure we are meeting the needs of and working closely with our families).
➢ Staff (to ensure CPD is effective).

The coordinator also reports to Governors regularly to discuss data and progress and to ensure school are meeting the needs of our local community. As the school holds the 360 Mark as well as the Naace Quality Mark the co-ordinator also works closely with other schools that hold the mark. The coordinator is currently working on a project with these schools to support other schools in the area with the assessment of computing. The quality assured schools share ideas and work collaboratively on projects to ensure effective implementation of the computing curriculum.

Computer Steering Group

We have in school a computer steering group that consists of:

➢ The Computing Coordinator (Mrs R Harrison-Heath)
➢ Teacher – Minnie Clair
➢ HLTA Key Stage One – Hayley Mitchell
➢ HLTA Key Stage Two – Mike Price

➢ Governor – TBC

This group meets termly to plan any events in addition to the curriculum such as E- Safety Week in February. HLTA' also support Key Stages in the delivery of some lessons and they work alongside teaching staff when new technology is introduced to the classroom.

A broad and balanced curriculum

A broad and balanced curriculum is offered with many opportunities for computing skills to be applied to other areas of the curriculum. Good practise is consistently shared between staff and governors have been generous with the budget to ensure our hardware and software is up to date and constantly evolving. Flexible planning and a wealth of resources allow staff to be creative in their delivery and children to be creative in their learning. It also allows children to work beyond the school day with parents. We are supported by E Services and an onsite technician to ensure any barriers to learning to alleviated and to ensure our practise is safe and secure. We also work closely with Squirrel Learning, an outside agency that provides ideas to use within the curriculum whilst team teaching with staff to enhance their CPD in the classroom. They also keep school abreast of new and evolving technology and support us with the purchasing of new equipment.

Planning a Progressive Model:

The skills lessons are progressive to enable staff to understand the standard they should be aiming for and a whole school guide is provided to share with staff the availability of apps or programmes appropriate for their Year group. It also tells staff on which device they can found.

Digital Ambassadors

Once children reach Year 5, a number of children are selected to take part in a Digital Ambassador programme. This is delivered by the outside provider: Wider Learning. Mrs Harrison-Heath as well as a member of the steering group works alongside wider learning to deliver an intensive programme. This programme raises and improves the profile and understanding of Online Safety and safeguarding issues in our school by establishing and supporting a group of trained peer Digital Ambassadors. It tackles issues around online risk, sharing personal information, digital footprint/ online reputation and age appropriate content. Mrs Harrison-Heath works with the children on Projects in school throughout the year. Our trained Digital Ambassadors become the pupil voice and they work with classes throughout the year as well as staff and parents. In Year 6 They take on the second part of the training.

Digital Ambassadors Plus

-The programme is delivered through 3 modules that focus on pupils online and offline lives, including the following:

➢ **Self-Respect and Respect for Others**
➢ **Healthy Habits**
➢ **Staying in Control**
➢ **Maintaining Positive Relationships**

- ➢ **Digital 5 A Day**

Pupils are encouraged to complete tasks between each module that create content to help them share their online safety messages around their school community.

Family Learning Sessions:

To ensure parents are involved in the Online Safety aspect as much as possible we offer Family Learning sessions where parents can come into school and work with their children throughout the school year (One Term) that are supported by Steering Group staff, governors and also outside providers such as Online Behaviours. We also offer a whole school meeting, where all parents from across the school are invited to come in for a talk with the coordinator and online learning behaviours, for an update and talk about how to keep their children safe online.

Online Safety

We work closely with Online Behaviours to ensure our Online Safety practise is effective and compliant. They provide:

Meetings with school leadership, including with Governors or a Link Governor, to ensure schools:

- ➢ Meet statutory online safety requirements e.g. KCSIE
- ➢ Follow best practice guidelines
- ➢ Provide strong, up to date policies and systems to ensure robust online safeguarding
- ➢ Offer the best parental support and advice

Assessment

Formal assessment and the teaching of Key Skills begins in Year 1 through to Year 6. Foundation Stage are not formally assessed as they are exploratory learners at this stage. We assess the children against their targets in each topic area.

We use the insight system to assess the children to ensure a uniformed approach with other subjects. We began using this system in 2023. It is based on how many children are:

- ➢ Below
- ➢ Working Towards
- ➢ On Track
- ➢ Exceeding

A child is judged as exceeding if they are independent learners in their year group as well as show the ability to use applications within other applications or programmes. They must also be able to respond to feedback and disseminate these skills in class.

Impact

The implementation of this curriculum ensures that when children leave Bilston Church of England Primary School, they are competent and safe users of ICT with an understanding of how technology works.

They will have developed skills to express themselves and be creative in using digital media and be equipped to apply their skills in Computing to different challenges moving forward.

Monitoring and Evaluation

The curriculum subject leader is responsible for the monitoring and evaluation of their own subject area. Additional management time is given to subject leaders upon request to enable them to successfully carry out their roles and responsibilities, without adding to workload. This may take place via learning walks with a member of SLT staff or with link governors. The information from the monitoring and evaluation then forms the basis of the impact assessment for the curriculum area.

Judgements on the impact of the curriculum on pupils is based upon a triangulation of different monitoring and evaluation activities within school. Work and book scrutiny, pupil voice discussions, outcomes of assessments and quality of teaching and learning are all used at tools to help senior leaders and the coordinator assess the impact of the curriculum.

Outcomes for Pupils

Our curriculum consistently leads to good outcomes and results for the pupils at Bilston Church of England Primary School. Whilst using our previous assessment tracker on STAT assessment system (2019) school have generally shown an upward trend in computing.

Assessment of these pupils is in much smaller and achievable steps.