Pilgrims School

Computing Policy

May 2022

Next review date: May 2023

Contents

Please note: 'School' refers to Early Years Foundation Stage (Little Pilgrims and Pre School) and Pilgrims Main School.

A high quality computing education equips the children to use computational thinking and creativity to understand and change the world. Computing has deep links with mathematics, science, and design & technology, and provides insights into both natural and artificial systems. The core of computing is computer science, in which children are taught the principles of information and computation, how digital systems work, and how to put this knowledge to use through programming. Building on this knowledge and understanding, children are equipped to use information technology to create programs, systems and a range of content. Computing also ensures that children become digitally literate - able to use, and express themselves and develop their ideas through, information and communication technology - at a level suitable for the future workplace and as active participants in a digital world.

The 2014 Primary National Curriculum in England

1. **RATIONALE**

This policy reflects the school vision and values:

At Pilgrims we inspire each child to love learning

We recognise the importance of making learning fun, interesting, meaningful and memorable. Therefore, we teach specific computing skills and also develop the use of ICT through a themed contextual approach, enabling each child to connect ideas, build on prior knowledge and deepen their understanding. At Pilgrims we aim to allow every child the opportunity to:

- Reach their full potential
- Stimulate their curiosity, enjoyment, imagination and creativity
- Be confident and independent thinkers
- Be supported in their individual needs
- Have their ideas nurtured and developed
- Open their minds to new opportunities and challenges
- Use computational thinking and creativity to understand and change the world
- Make links with mathematics, science and design technology
- Build knowledge of principles of information and computation, how digital systems work, and how to put the knowledge to work through programming
- Become digitally literate – able to use, express themselves and develop ideas through information and communication technology

In keeping with the School's values, staff and governors are committed to:

Kindness

- Working together to help and support each other
- Providing a safe, stimulating learning environment
- Encouraging a sense of responsibility and positive attitude to caring for the world in which we live

Curiosity

- Providing a relevant, challenging and enjoyable computing curriculum for all pupils

- Promoting lively, enquiring, independent and imaginative minds and developing enthusiasm for all aspects of Computing and ICT
- Developing lively and enquiring minds, building on natural curiosity and encouraging the confidence to respond to new developments in technology
- Equipping pupils with the confidence and capability to use ICT and computing throughout the curriculum and their later life
- Fostering imagination, creativity, problem solving and a willingness to take risks
- Promoting assessment for learning, building on what the children already know and encouraging a greater responsibility and ability to think and learn for themselves
- Providing opportunities for pupils to work independently and collaboratively
- Developing children's capacity to learn about ways of thinking, finding information and presenting their work

Respect
- Ensuring that every child succeeds by providing an inclusive education with a culture of high expectations
- Promoting respect for ideas and investigating the points of view of other pupils
- Encouraging curiosity, perseverance, open-mindedness, critical reflection and cooperation
- Developing the understanding of how to use ICT and computing safely and responsibly

2. LEARNING

The National Curriculum for Computing aims to ensure that all pupils:
- Can understand and apply the fundamental principles of computer science, including logic, algorithms, data representation, and communication
- Can analyse problems in computational terms, and have repeated practical experience of writing computer programs in order to solve such problems
- Can evaluate and apply information technology, including new or unfamiliar technologies, analytically to solve problems
- Are responsible, competent, confident and creative users of information and communication technology

Early years
Pupils build confidence in using technology purposefully to support their learning within all Early Learning Goals where appropriate. Pupils in the Foundation Stage will experience using technology indoors, outdoors and through role play in both child-initiated and teacher-directed time. We believe it is important in the Foundation Stage to give children a broad, play-based experience of ICT in a range of contexts.

Key Stage 1
By the end of Key Stage 1 pupils will be taught:

1. Computer Science

    - 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 the behaviour of simple programs

2. Information Technology
    - Use technology purposefully to create, organise, store, manipulate and retrieve data in a range of digital formats

3. Digital Literacy

- Recognise common use of information technology beyond school
- Use technology safely and respectfully online, keeping personal information private
- Where to go for help and support when they are concerned about content or contact on the Internet or with other online technologies.

3. PLANNING

Planning for Computing is implemented using the core document: the National Curriculum Programme of Study for Computing. Long term planning identifies the key skills that will be covered in each year group. Planning in Years 1 and 2 utilises adapted schemes of work from the Purple Mash Scheme from 2Simple and takes account of differentiation and progression. Reception planning is based on exploring a range of ICT equipment and developing key skills in preparation for KS1.
E-safety is taught both within Computing and PSHCEE lessons and across the wider curriculum where technology is used. Opportuities for technology as a tool to support learning and teaching in all areas are identified in curriculum planning.

4. TEACHING

From Pre-School onwards all children will have weekly timetabled sessions in the Computer suite, although not all lessons will involve the use of computers. These sessions will be used to develop the children's computing skills with a range of techologies and in KS1 they are in line with the National Curriculum.

Pre-School chidren attend the ICT suite in their keyworker groups, with the ICT Specialist and their Key workers. They will be introduced to a range of ICT skills which are reinforced back in the classroom through both adult-supported sessions and continuous provision.

Reception children will be taught by an IT Specialist and supported by the class HLTA. Teachers will also encourage the children to use a range of ICT equipment (such as cameras, metal detectors, voice recorders, IPads and interactive boards) across the rest of the curriculum.

Years 1 and 2 will also be taught by an IT Specialist supported by a Teaching Assistant.

All classes from Pre-School upwards have access to an Interactive smartboard in their setting. All classrooms have a PC linked to the school network and with internet access. All teachers have access to a class IPad to use with the children, for teaching and for the recording of assessments as required. There are two set of iPads available for children's use across the school.

5. ASSESSMENT, RECORDING AND REPORTING

Assessment of each child's work is an ongoing process. Learning outcomes are identified in planning documents and are used to ensure that teachers are aware of individual pupil's progress in computer science, information technology and digital literacy.

Formative assessment is used by the teacher and teaching assistant during whole class or group teaching. Children's confidence and difficulties are observed and used to inform future planning.

Monitoring of work is carried out through question and answer techniques and observations of created work and activities, to ensure that each child is working at an appropriate level.

Children are encouraged to evaluate their own and others' work in a positive and supportive environment, including peer and self assessment.

Teacher's judgements are supported through an electronic portfolio of evidence.

Reporting will be via an annual written report.

6. ONLINE SAFETY

A progressive online safety curriculum ensures that all pupils are able to develop skills to keep them safe online.
Opportunities for learning about online safety are also taught as part of the PSHCEE curriculum and are reinforced whenever technology is used. Clear rules for online safety are agreed with the children and are reinforced at the beginning of every year. The school has an online safety policy in place that details how the principles of online safety will be promoted and monitored.

7. MANAGEMENT AND COORDINATION

The role of the subject leader is to:

- Provide a strategic lead and direction for the subject
- Support and offer advice to colleagues on issues related to the subject
- Monitor pupils progress in the subject area
- Manage the subject budget
- To monitor Computing and ICT resources to support teaching and learning
- To monitor the use of technology throughout the school through classroom observations, learning walks and evidence gathering

The IT Specialist is observed by the Deputy Headteacher as part of the performance management cycle.

8. RESOURCES

The school has a range of resources to support the delivery of the Computing curriculum and learning across all areas of the National Curriculum. 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 team. Hardware and software faults are reported by all staff to the school I.T. Support Department. The Computing Action Plan expresses the school's priorities for future expenditure and is reviewed by the Computing subject leader and senior management who consider its impact on all learning. Old resources are passed to the I.T. Support Depatment for appropriate disposal.

9. INCLUSION

All children regardless of gender, ethnic group, culture, ability and EAL are entitled to full access to the Computing curriculum (see Equal opportunities policy). Additionally, teaching must not undermine fundamental British values or discriminate against pupil's contrary to the Equality Act.

10. SEN PROVISION

Planning will be differentiated to accommodate individual children's needs where relevant. Teaching and learning will take into account the current policy for children with Special Educational Needs. (See SEND Policy). Teachers differentiate work by task, resource or support, to ensure the individual needs of SEND pupils are met.

11. ABLE, GIFTED AND TALENTED

Children who show particular talents in a broad range of ICT activities are identified and put on the Able, Gifted & Talented register. They are then given opportunities to further develop their skills within lessons and through the opportunity to participate in outside events or activities (See A, G & T policy).

12. HEALTH AND SAFETY

Lessons are taught taking into account the health and safety of all. Safe practice is essential and must be promoted, discussed and modelled at all times. Where necessary, risk assessments are carried out to ensure safety issues have been identified and managed effectively.

This policy should be read in conjunction with the following policies:
Online Safety policy
PSHCEE
Inclusion statement
Able, Gifted and Talented
SEND
The Teaching and Learning Policy
Equal Opportunities
Health and Safety