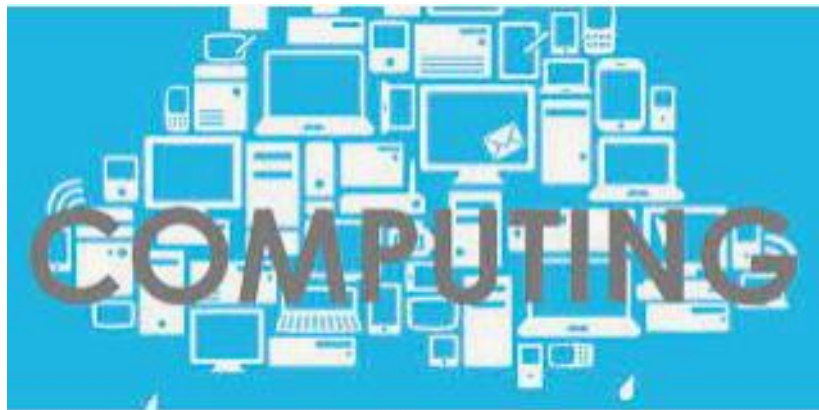Park Brow
Primary School

Happy - Respect - Pride - Caring - Potential

Computing Curriculum Policy

Updated May 2023

Potential

Respect

Pride

Happy

Caring

Intent

In an ever changing technological world, we want to give our pupils the skills to be confident and competent with technology. Through topics covering Digital Literacy, Computer Science and Information Technology, we encourage our children to be independent learners who through use of a range of software can analyse, present information and evaluate their work. We ensure that children are taught the importance of internet safety and encourage the use of this skill outside of the school environment.

Computing Curriculum Development

The current computing curriculum has been designed by Hi Impact with consultation of all staff to offer a cross curricular based approach. This is to maximize the potential use of different skills through other subjects and for children to transfer their digital skills as they would do in the real world. It is a working document which can be reviewed and changed as needed to fit our children's needs or School Improvement Plan.

Aims:

EYFS

Through following our Scheme of Work and in line with the new Birth to 5 document guidelines we want to give our children the skills and experiences so they:

Birth to 5 Range 5 (Nursery)
- Know how to operate simple equipment eg use a remote control
- Shows an interest in technological toys with knobs or pulleys, real objects such as cameras and touchscreen devices such as mobile phones and tablets
- Shows skill in making toys work by pressing parts or lifting flaps to achieve effects such as sound movements or new images
- Knows that information can be retrieved from digital devices and the internet
- Plays with a range of materials to learn cause and effect

Birth to 5 Range 6 (Reception)

- can complete a simple program on electronic devices
- can use ICT hardware to interact with age appropriate computer software.
- can create content such as a video recording, story, and/or draw a picture on screen
- can develop digital literacy skills by being able to access, understand and interact with a range of technologies
- can use the Internet with adult supervision to find and retrieve information of interest to them

KS1 and KS2
- can understand and apply the fundamental principles and concepts of computer science, including abstraction, logic, algorithms and data representation
- 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

Attitudes and Skills

In an ever changing subject we seek to encourage children to develop the following skills:
- Enjoyment
- Self-motivation
- Computing enquiry
- Perseverance
- Resilience
- Curiosity
- Transferrable skills

Cultural Capital

Teaching staff are encouraged to broaden the experience for the children through promotion of the outdoor curriculum, off-site visits, visitors into school and shared experiences with the wider school community, e.g. involvement with parents/carers.

The computing curriculum is delivered through stand-alone sessions to teach Computer Science. Digital Literacy and Information Technology have been planned for a cross curricular approach. A balance between direct teaching and child-led exploration is encouraged. As well as teacher led sessions, we currently have specialists from Hi-impact delivering sessions throughout KS1 and KS2.

Planning

Long, medium and short term planning formats have been produced by Hi Impact and meet National Curriculum requirements. As the plans are working documents, teachers are able to add their own enhancements as they see fit.

Teaching

Foundation Stage:

Within foundation stage Computing is taught through a child initiated environment where children can interact with age appropriate software and equipment.

KS1

Within key stage 1 Computing covers three areas:
- Computer Science
- Information Technology
- Digital Literacy.

These areas ensure that pupils 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

KS2

Within key stage 2 computing covers three areas:
- Computer Science
- Information Technology
- Digital Literacy.

These areas ensure that pupils 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

Monitoring and Assessment

EYFS
Although there is no expectation to cover Computing within the early learning goals, opportunities to interact with technology in a safe and meaningful environment is encouraged.

KS1 and KS2
Assessment is conducted through assessment grids made to match the objectives taught that half term. Each child is assessed at working towards, achieved expected standard, mastered or absent. Termly data from each year group will be collated and used to inform teachers' planning in order to close gaps in knowledge, skills and understanding. Curriculum work in Computing will be recorded as the teacher sees fit. It can be uploaded to a child's Seesaw account, stored on the child's own cloud based storage, or the teacher may take pictures to record evidence of work. Pictures will be uploaded to a central storage place within the schools network. Seesaw and centrally located pictures as well as pupil voice can then be used to monitor that the Programme of Study is being effectively taught and match the needs and abilities of the pupils. Monitoring and review takes place in accordance with the School Monitoring Cycle, the School Improvement Plan and the Creative Curriculum Action Plan.

Safety
It is important that children are taught the rule of safety in computing from a young age so that it becomes integral to their experiences online in school and at home. Teachers aim to teach this through the Digital Literacy area of study. Our school follows an eSafety/Online policy. Please refer to this for further information.

Equal Opportunities

Computing is planned to meet the varied needs of all learners regardless of their gender, background, and culture, physical or cognitive development. Learning objectives are set to meet these needs in line with our Special Needs policy. Our expectations do not limit pupil achievement and assessment does not involve cultural, social, linguistic or gender bias. We recognise that computing may strongly engage our gifted and talented children, and we aim to challenge and extend them.

Use of ICT

ICT is not a standalone subject it is used to enhance and support other curriculum areas.

However, it is important to recognise that some aspects of traditional ICT are still required to be taught discretely and should not be forgotten.

- In KS1, children should be taught to: "use technology purposefully to create, organise, store, manipulate and retrieve digital content";

- In KS2, children should be taught to: "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".

Responsibilities and Roles

The Head teacher and Governing Body have overall responsibility for the Computing Curriculum, supported by the Curriculum Leads.

The Curriculum Leads are responsible for overseeing the delivery of the Computing Curriculum through:
- Staff CPD
- Monitoring long term planning to ensure curriculum coverage.
- Monitoring of subject in line with school procedures.
- Ensure progress is being made.
- Regular reviews of the curriculum through staff and pupil questionnaires and open dialogue.
- Making changes where necessary.
- Formulating an action plan to move the school forward.
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All teaching staff are responsible for the planning and delivery of the curriculum on a day-to-day basis and for making cross-curricular links where appropriate. Staff make amendments to planning in order to optimise learning opportunities when they arise. Outside agencies teaching provide their own planning and method of evaluation to support teacher assessment. This is shared with teachers as best practice and provides a valuable CPD opportunity.

Monitoring and Review

Monitoring and review takes place in accordance with the school Monitoring Cycle, the School Improvement Plan and the Creative Curriculum Action Plan. Monitoring is undertaken by the Curriculum Leads and is done through:
- Pupil voice
- Lesson Observations
- Looking at Seesaw and photographs
- Discussions with staff
- Analysis of assessments

Policy to be reviewed Summer term 2024