Upton Westlea Primary School

Computing Policy

Approved by staff: April 2019

Signed: K Carruthers

Approved by Governors: April 2019

Signed: N Buckley

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Introduction

At Upton Westlea Primary School we believe that Computing and the use of ICT is central to the education of all children. We aim to give each pupil the opportunity to apply and develop their technological understanding and skills across a wide range of situations and tasks. Pupils are encouraged to develop a confident and safe approach to Computing and the use of ICT, with the understanding of the capabilities and flexibility of their resources. With the knowledge that Computing and ICT will undoubtedly continue to form a major part in the children's life at home, in further education and places of work, we ensure the Computing and ICT experiences and abilities that the children are equipped with at Upton Westlea, are effective and transferrable life skills.

Objectives

The new National Curriculum 2014 states that a high quality computing curriculum equips children to use computational thinking and creativity to understand and change the world. The core of computing is computer science and at Upton Westlea Primary School, children will be taught the principles of information and computation, how digital systems work and how to put this knowledge to use through programming. Children will be equipped to use ICT to create programs, systems and a range of content. Computing at Upton Westlea, ensures that children become digitally literate, able to use and express themselves and develop their ideas through ICT, at a level suitable for their academic stage, that will develop them for the future workplace and as active participants in a digital world.

Aims

At Upton Weslta Primary School we aim to develop children's knowledge, understand and skills so they can:

- Understand and apply the fundamental principles and concepts of computer science,
- Analyse problems in computational terms and have repeated practical experience of writing computer programs in order to solve such problems,
- Evaluate and apply IT, including new or unfamiliar technologies, analytically to solve problems,
- Be responsible, competent, confident and creative users of ICT,
- Use ICT safely.

The Curriculum

At Upton Westlea Primary School, knowledge, understanding and skills in computing and ICT are built upon and developed in each year group, from EYFS to Year 6.

The Foundation Stage

In the Foundation Stage, children will:

- Know how to operate simple equipment, e.g. turn on a CD player and use a remote control.
- Show an interest in technological toys with knobs or pulleys, or real objects such as cameras or mobile phones.
- Show skill in making toys work by pressing parts or lifting flaps to achieve effects such as sound, movements or new images.
- Know that information can be retrieved from computers
- Complete a simple program on a computer.
- Use ICT hardware to interact with age-appropriate computer software.
- Recognise that a range of technology is used in places such as homes and schools.
- Select and use technology for particular purposes.

Key Stage 1

Throughout years 1 and 2, children will:

- 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 ICT beyond school,
- Use technology safely and respectfully, keeping personal information private, identify where to go to for help and support when they have concerns about content or contact on the internet or other online technologies.

Key Stage 2

Throughout years 3, 4, 5 and 6, children will:

- Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems and solving 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 worldwide 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.

Planning

Early Years Foundation Stage

Key Stage 1 & 2

Computing planning is provided for the class teacher in most units of work in accordance with the National Curriculum. The subject leader has ensured there is an appropriate balance and distribution of work across each half term with ample opportunity to revisit and extend children's learning. During each unit class teachers annotate the provided plans with organizational details, including teaching modes, differentiation, deployment of staff/volunteer support and resources. The class teacher keeps these individual plans, and the subject leader monitors and reviews them regularly.

Progression and Continuity

At Upton Westlea Primary School we plan activities in Computing so that they build on the children's prior learning. While we give children of all abilities the opportunity to develop their skills, knowledge and understanding, we also plan progression into the scheme of work, so that there is an increasing challenge for the children as they move up through school. Individual learners are able to make progress in the acquisition of concepts, knowledge and skills at the rate most appropriate to their ability and stage of development.

As Computing has replaced ICT in the 2014 National Curriculum, some of the attainment targets in Upper Key Stage 2 may not be attainable immediately as the knowledge, understanding and skills needed have not previously been attained. Therefore, the curriculum will be taught from the ability stage the children are at, rather than the expected age. After a few years, when children from Lower Key Stage 2 progress with the necessary knowledge, understanding and skills, the year 5 and 6 attainment targets will be met.

Curriculum Links

(Please see other subject policies, Internet acceptable use policy and the E-Safety policy)

Effective teaching of Computing and ICT involves making connections across other curriculum areas and through continuous provision in the EYFS and Key Stage 1.

Computing has deep links with mathematics, science and design technology and provides insights into both natural and artificial systems. E-safety is also an important part of PSHCE. Throughout all subjects, children at Upton Westlea Primary School will have opportunities to gain skill, knowledge and understanding in the following areas:

- Finding things out, gathering information from a variety of sources, entering, storing, and retrieving information.
- Developing ideas and making things happen through text, tables, images and sound.
- Selecting and adding to information by planning and giving instructions to make things happen.
- Exchanging and sharing information, sharing ideas and presenting information in different forms, to best effect.
- Reviewing, modifying and evaluating work.

Equality Statement

At Upton Westlea Primary School, we actively seek to encourage equity and equality through our teaching. As such, we seek to advance the equality of opportunity between people who share any of the following characteristic:

- gender;
- ethnicity;
- disability;

- religion or belief;
- sexual orientation;
- gender reassignment;
- pregnancy or maternity.

The use of stereotypes under any of the above headings will always be challenged.

Inclusion

Upton Westlea Primary School is an inclusive school. We aim to make all pupils feel included in all our activities. We try to make all our teaching fully inclusive. We recognise the entitlement of all pupils to a balanced, broadly-based curriculum. We have systems in place for early identification of barriers to their learning and participation so that they can engage in school activities with all other pupils. We acknowledge the need for high expectations and suitable targets for all children.

Special Educational Needs

It is important that learners should work at an appropriate level of difficulty across the curriculum. It is the responsibility of the class teacher to monitor and assess the ability and level of understanding of individual children regarding Computing and ICT, and to cater for their needs. Advice and support can be sought from the Computing Curriculum Leader, SENCo or Head teacher.

Conversely, learners of gifted ability in Computing and ICT need to be appropriately challenged in order to extend their knowledge and understanding and maintain motivation. Differentiated work and enrichment opportunities will be planned for those children by the class teacher.

Resources

At Upton Westlea Primary School, children and staff have access to a range of ICT equipment, including computers, laptops and iPads. The computers are linked to the school network and server and have facilities to connect to the Internet through Broadband connection. We currently have four laptop trolleys, for shared use throughout the school. There is a laptop and projector Hall.

At Upton Westlea Primary School we are constantly evaluating our use of different resources and equipment as technology changes at a fast pace.

Key pieces of software are used throughout the school and use of these is developed as the children progress. Other software is used to support ICT work in a range of curriculum areas. Teaching resources are kept within each class and the Internet is used regularly as a rich and varied provider of a variety of resources.

Interactive Whiteboards are installed in all classrooms.

Equipment other than computers is also available and is used throughout the National Curriculum. These include iPads, data loggers, Makeymakey kits, Crumble kits, Bee Bots and remote control toys.

All teaching personnel have laptop/PC computers within their classrooms, which have facilities for network connection.

A range of other electronic devices used within school, home and other areas of day-to-day life, also play their part in a child's experience of ICT. Television, music hi – fi, video recorder (with remote control), microwave oven, photocopier, burglar alarm, central heating system and radiator thermostats are all located within the school. Other devices used in the home are also identified, discussed and, where possible, demonstrated in order to examine the use of 'control' technology, e.g. automatic washing machine, tumble drier, oven timer, radio alarm.

Through the use, experience and discussion of a varied range of equipment, children gain knowledge about the use of ICT and its implications in day-to-day life.

Recognising Pupils' Achievements

Pupils' achievements in Computing and ICT are recognised and celebrated through:

- Occasionally there our display of learners' work in classrooms and public areas

- Showing work to the class, other classes, and to the whole school in assemblies and to the Headteacher
- The award of individual class awards e.g. dojos
- Headteacher Awards

Assessment, Recording and Reporting

Learners are formatively assessed continuously in Computing and ICT by teachers in the course of their teaching, through observation, questioning and analysis of work. It is the responsibility of the class teacher to assess the progress of individual learners. This involves identifying each child's progress, determining what each child has learned and what, therefore, should be the next stage in his/her learning, so informing future planning. Class teacher complete half termly assessment records which the subject lead has access to.

Feedback to pupils

Feedback to pupils is through discussion about their work and the marking of work. It is important that learners are involved in the assessment of their work as this helps them to understand their own strengths, needs and future targets for development. We encourage children to make judgements about how they can improve their and their peers work.

Home School Partnership

Parents and carers have a vital role to play in their child's education, and homework is an important part of this process. Often children may be asked to carry out research, which may involve the use of the internet. We ask parents and carers to encourage their child to complete the homework tasks that are set. We invite them to help their children as and when they feel it necessary and to provide them with the sort of environment that allows children to do their best. We ask parents and carers to check the home–school diary at least once a week, and to sign it as requested.

The role of the Computing Subject Leader

The Computing Subject Leader is responsible for:

- Coordinating all aspects of Computing and ICT provision for learners throughout the school
- Developing the Computing Policy, in consultation with teachers, the Head teacher and the Governing Body
- Modeling good practice in the teaching of Computing and the use of ICT
- Advising and supporting teachers and support staff in relation to Computing and ICT, including contributing to in-service training
- Monitoring Computing, in conjunction with the Head teacher, through discussion with staff, by checking the Medium Term Planning of individual teachers to ensure coverage and progression, and through analysis of learners' work
- Purchasing and the organisation of Computing and ICT resources
- Keeping up-to-date with developments in Computing teaching and learning, and disseminating information to colleagues as appropriate
- Completing an annual review of Computing for the School Development Plan
- Maintaining an organised Computing Curriculum Leader file

Wider Community Link

Upton Westlea Primary School supports the use of technology throughout the wider community and with the use of the school website, we share children's work, latest information, developments, newsletters and policies with parents and carers.

Conclusion

At Upton Westlea Primary School we believe in the importance of equipping our children for life. Computing and ICT surrounds us all, and is an integral and therefore necessary part of all our lives. We aim to ensure that all children not only gain knowledge and skills in Computing and ICT, but an understanding of how it relates to their everyday life and will contribute to their future.

Last reviewed: April 2019
Date of next review: April 2022