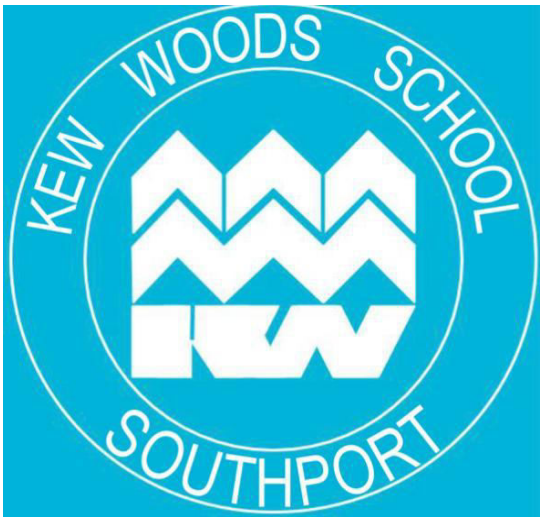
KEW WOODS
PRIMARY SCHOOL



Computing and Learning Technology Policy

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This document is one of a series that make up the whole curriculum statement for the school. It states the school philosophy about the contribution which computing makes to our pupils' education and the way in which the National Curriculum 2014 is delivered in practice via a creative curriculum. In effect it is an expanded policy statement and together with the long, medium and short term planning, constitutes the school scheme of work.

Aims and Objectives

Computing is concerned with creating, storing, processing and presenting artefacts by electronic means (digital artefacts). It makes a significant contribution to all aspects of learning and can be used across the whole curriculum to enhance the learning process. It should include such resources as electronic toys, calculators, audio recorders, video recorders and musical instruments, scanners and digital cameras as well as computer software including CD ROMs and external USB devices, handheld technology such as iPads and the Internet and E-mail facilities.

Implementation of learning technology and computing at Kew Woods helps children to develop their 'Digital Literacy' (NAACE Framework 2012) through:

- Developing knowledge about technology: its resources, applications, effects and limitations.
- Developing the skills to use these resources effectively and with increasing independence across a range of different challenges and in a variety of contexts.
- Developing confidence and pleasure in using technology to become familiar with everyday applications and to give them the capability to use ICT in later life.
- Using technology where appropriate, to enhance and extend their learning across the whole curriculum.
- Developing an understanding of the new opportunities technology provides and to encourage the flexibility and openness of mind necessary to adjust to and take advantage of the ever quickening pace of technological change while being alert to ethical implications and the consequences for individuals and society in general, particularly in relation to issues of security, confidentiality and accuracy.
- Developing the ability to create, collaborate and share using technology.
- Developing an understanding of programming, enabling pupils to write and debug simple programs in KS1, building up to more complex programs in KS2.

The National Curriculum for Computing (2014) aims to ensure that all pupils:

- 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

Kew Woods Primary School Curriculum Map – Computing

Class/ Area	Research and Word Processing	Programming and Algorithms	Creating Digital Content 1	Creating Digital Content 2	Digital Communication	Data Collection, Representation and Analysis
YEAR ONE	Introduction to websites. Navigating pre saved webpages and finding information. **Basic entering and editing text to be mastered.**	Programmable Toys (Bee Bots) On screen programming (Bee Bots) 2 Code: Chimp -Fun with Fish	Capturing, creating and editing images.	Capturing photos and videos.	N/A *Instead, Year One pupils are to cover a range of Key Skills (e.g. logging on, opening software programmes, saving and opening)*	Collect data and present off screen using pictograms. Present on screen (2Graph)
YEAR TWO	Word processing. Combining text with graphics.	2 Code Chimp *See coding overview*	Digital painting using Brushes, 2Paint and Paint	Basic Animation (Puppet Pals)	Introduction to Email (Email Detectives)	Collect data. Create and analyse bar charts
YEAR THREE	Word processing via multimedia presentation (Powerpoint, Keynote)	2 Code Chimp *See coding overview*	Creating Comic Strips	App Creation using App Furnace	Email- introducing Google Email	Opinion polling and market research. Use data to create charts and graphs.
YEAR FOUR	Word Processing via app creation and blogging on the learning platform	2 Code Chimp/ Gibbon *See coding overview*	Creating Audio content using Audacity and Garageband/ Podcasting	Stop motion animating (2Animate)	Email and video conferencing	Create and use databases (2Investigate)
YEAR FIVE	Word processing and digital writing via blogging and app creation	2 Code Gibbon/ Coding principles	Digital Photography and editing File management	Video performance 2 (creating an advert)	Collaborating on a multimedia presentation (Google Docs)	Creating and using research forms (Google Forms) Spreadsheet modelling (basic)
YEAR SIX	Collaborative word processing using Google Docs. Webpage creation	2 Code Gorilla	Creating an eBook Year book.	Publishing and advertising packaging for a console game	Collaborating on a website	Spreadsheet Modelling (advanced)

Teaching and Learning

We use a variety of methods to provide an enquiry based learning situation. Work is planned, taught and assessed to involve the children in tasks, which will use any of our learning technology resources to give them the opportunity to show what they know, understand and can do. The nature of computing and the resources available are such that children can work as a whole class, in small groups or individually.

Computing skills are taught through modelling and demonstration leading on to activities in which the pupils develop the skills with adult support.

Differentiation can be provided through outcome i.e. where different children respond differently in the use of the same software for a given task, or may choose to use different software/ hardware for the same task. It can also be provided by task where separate tasks and software are provided for the different ability groups.

Team-teaching also enhances our provision of differentiated learning. When additional teachers/adults are available during Computing lessons they work in a variety of ways, including:

- Supporting / observing / recording the participation of individuals during lessons.
- Sharing an aspect of the whole class delivery.
- Working with groups during guided work.
- Supporting individuals during independent work.

The strategies employed are at the team's discretion and will be subject to change depending on the objectives of the lesson.

Peer cascading is used in the teaching of Computing, for pupils' pass on their knowledge and skills to others.

Computing Curriculum Planning

The class allocation for specific use of the Tim Berners-Lee Hub (learning technology room) is 1 session a week, however a range of technologies are available to be integrated into lessons at any time. These resources are on an open timetable and it is the responsibility of the class teachers to reserve them when needed. Computing skills should be taught and applied through cross curricular activities; however there is a need for discrete skills based lessons. These discretely taught skills can then be applied in context.

The use of technology for learning is planned as an integral part of all curriculum subjects. The Computing element is based on the National Curriculum Programmes of Study and the Chris Quigley Essentials curriculum. Through monitoring we ensure that a balanced study of all areas of Computing takes place as well as progression of skills through the school.

These areas are:-

Research and word processing
Programming and algorithms
Creating digital content
Digital communication
Data collection, representation and analysis

Planning for Computing should form part of a class teacher's cross curricular weekly plan.

Foundation Stage

Children in the Foundation stage find out about and identify the uses of everyday technology and use technology to support their learning. They have constant access to computers, cameras, handheld technologies and programmable toys in their classroom, with adult support to enhance their learning. The Reception class also have specific computer based lessons in the Hub.

The contribution of technology and Computing to teaching in other curriculum areas

The use of technology is planned as an integral part of all subjects. Children will use a range of resources in core, foundation and non-foundation subjects, and cross curricular themes. These resources will include electronic toys, calculators, musical instruments, a scanner, video and digital cameras as well as computer software including CD ROMs, the Internet, e-mail, Google Apps for Education, blogging, iPads and iPods.

Word processing software is not only used to develop English skills, but is also used across the whole curriculum, especially in History, Geography and RE to enhance the children's work. A high standard of word processing is expected.

Data bases and spreadsheets are used in Maths, Science, Geography, History and Technology.

Computer aided design software (such as Google Sketchup) is used in Technology.

Art packages, e.g. Dazzle, Paint and 2Paint a Picture, are used throughout all Key Stages to enhance work in all areas of the curriculum as well as to develop a new dimension in children's artistic activities.

Programmable devices, including Roamer, Beebots, calculators, digital cameras, video cameras and tape recorders are used to enrich work in most core and foundation subjects.

Portable hardware (iPads) is available, featuring a wide range of applications and software programs.

Special Needs

In Computing, a broad balanced and relevant curriculum is provided. It is matched to the needs of individual pupils and is the most effective means of ensuring the optimum educational development of children across the whole continuum of educational needs. Therefore this approach is appropriate for children in Nursery and mainstream classes who have particular Special Educational Needs.

Computing is also used to help children with special needs to increase their independence and develop their interests and abilities.

Specific software is available on all devices to supplement teaching and learning across a range of areas

Equal Opportunities

Technology contributes to the whole school policy for equal opportunities in two respects; through the taught curriculum and by its teaching and learning strategies.

Computing is taught as an integral part of core and foundation subjects and all children are encouraged to use it for topics and tasks which interest them.

We use software and tasks which are not gender biased, pupils see male and female staff members using technology with confidence.

A variety of teaching styles and methods are used which give all children equal access to computers and other technology resources. Care is taken to ensure that all children take an active role and are questioned fairly.

Children are given opportunities to work in ability and mixed-ability groups and receive similar opportunities in differentiated forms.

Individual and collaborative learning provides all children with an equal opportunity to develop their own specific strengths in the field of Computing.

Assessment, Recording and Reporting

The following assessment in Computing is used for formative and diagnostic purposes:

- Assessment of Computing in the Curriculum will be in line with the Chris Quigley assessment milestones.
- Pupils' work is primarily stored either on the school network or online via Google Apps, Busy Things, Purple Mash etc.
- Presentation work will be printed and displayed in class and Topic books.
- Pupils complete an overview of tasks in Topic books allowing for reflection and self assessment

At the end of each academic year, achievement profiles and additional assessments are handed to the next class teacher.

Termly parents' meetings are arranged to allow parents to have the opportunity to discuss their child's progress with the teacher.

Resources

A vast range of resources are available to teach Computing and enhance the overall curriculum. We aim to keep these resources relevant and up to date by the implementation of a four year rolling replacement schedule. The subject leader will take responsibility for the identification of new technology.

KS2 pupils will have password access to online learning sites Purple Mash and Google Apps.

KS1 Pupils will have password access to the online learning sites Purple Mash and Busy Things.

iPads are available to enhance learning. Apps are purchased in accordance with Apple's Volume Purchasing Programme. Staff members can request specific apps, but it is to the discretion of the subject leader whether or not it is installed.

Teaching Resources

All class teachers will have access to the following resources to aid planning, teaching and assessment of computing.

- A class computer tat is linked to an interactive display and audio system
- Year group specific curriculum guidance documents
- The Chris Quigley Essentials website
- A laptop to use for planning
- An iPad linked to the school's iTunes account
- Guidance on assessment, Computing expectations, rules for Internet use and Health and Safety information.
- Copies of the acceptable usage policies for pupils and adults at school.

All users of technology in school will agree to and sign an acceptable usage policy, outlining the expected appropriate use of school resources. There is further information on this in the school e-safety policy.

Monitoring and Evaluation

The subject leader monitors planning throughout the year in accordance with the action plan agreed with the curriculum coordinator. They will scrutinise yearly and half-termly plans for each class which are evaluated to ensure coverage of the agreed curriculum.

At least once a year work from pupils in each class will be scrutinised looking for evidence of Computing, quality application of skills, continuity and progression.

In addition the co-ordinator has at least one monitoring focus each year which includes lesson observations, pupil interviews and demonstrations, and work scrutiny to further aid development of the curriculum.

Review and Continuing Professional Development

Information is collected annually to inform the school's development plan. The INSET coordinator monitors staff training needs and ensures that there is a balance in the courses provided, both in terms of the school development plan and professional requirements as manifested through the performance management process and informal staff discussions.

The Computing subject leader and members of the Leadership team will continue to use the NAACE Self Review Framework to assess the school's use of technology and plan for future provision.

The school's Computing subject leader will develop the school's learning platform (Google APPs/ Purple Mash) and will provide staff INSET on how to use it.

Maintenance of the school website is continuous, with class teachers updating class pages and blogs on a regular basis.

In addition advice and training will be given, by the co-ordinator, to individual members of staff on specific software as necessary. The intended outcome is to further develop and strengthen the delivery of the Computing curriculum.

The Computing subject leader will keep up to date with new initiatives and technologies through networking, including:

- Maintaining a leading role in the CORE collaborative and the Southport Learning Partnership.

- Attending Teach meets (opportunities for sharing of good practice)

- Regular discussion with colleagues via the Internet (eg. Twitter)

- Attending events provided by LEA and other suppliers (e.g. MGL)

Digital Leaders and Technology Team

Technology has a high profile at Kew Woods. We strive to include many stakeholders in our planning and implementation of learning technology and the Computing curriculum. To aid this, two interlinking groups have been established by the Computing subject leader: 'Digital Leaders' and the 'Technology Team'.

The 'Digital Leaders' consist of pupils from Years 5 and 6 who demonstrate a high level of computing capability. The digital leaders meet regularly and their duties involve:

- Trying out new technology.
- Sharing skills with others at school.
- Researching and developing the use of new technologies.
- Monitoring the use of technology to support learning.
- Helping teachers to develop their computing skills and knowledge.
- Helping teachers to deliver lessons.
- Running a club.
- Running parent workshops.
- Blogging about what's happening with technology.
- Raising the profile of e-safety in school.

The 'Technology Team' consists of staff members who have put themselves forward for the role. It is a prerequisite that they have a good level of capability when it comes to the use and upkeep of technology. They meet half termly and duties involve:

- Trying out new technology.
- Sharing skills with others at school.
- Researching and developing the use of new technologies.
- Monitoring the use of technology to support learning.
- Helping teachers to develop their computing skills and knowledge.
- Helping teachers to deliver lessons.
- Running a clubs.
- Running parent workshops.
- Blogging about what's happening with technology.
- Liaising with Digital Leaders.
- Supporting with e-safety promotion in school.

Maintenance

School works closely with the local authority and Arvato to ensure that physical systems and technology is operational. If a member of staff wishes to report a fault they should do so via the secure 'Staff Room' section of the school website.

An engineer works with school half a day a week. In this time they liaise with the subject leader, who reports issues logged and raises any other business.

Related Policies and Documents

1 Rolling Hardware Replacement Schedule
2 E-Safety Policy
3 Pupil Acceptable Usage Agreement
4 Staff Acceptable Usage Agreement
5 School Password Policy
6 School Internet Filtering Policy
7 School Data Protection Policy