

Kirklington Primary School



Computing Policy (Including internet access, e-safety and PREVENT)

Reviewed Spring 2025

1 Aims and objectives

1.1

Computing has become part of the way in which we all work and entertain ourselves. Almost everything we do at school now involves the use of computers:

- online lesson research, teaching plans and resource materials;
- lesson delivery via interactive whiteboard, iPads, laptops;
- communication by e-mail, skype, facetime and Instagram;
- document distribution and storage;
- assessment information analysis;
- production and editing of reports.

Through teaching Computing, we equip children to participate in a world of rapidly changing technology. We enable them to find, explore, analyse, exchange and present information. We also help them to develop the necessary skills for using information in a discriminating and effective way. This is a major part of enabling children to be confident, creative and independent learners.

1.2

Our objectives in the teaching of Computing are:

- to facilitate the finding, selection and use of information;
- to teach the use of computers for effective and appropriate communication;
- to design and write programs using software e.g. Scratch;
- to enable the monitoring and control of events, both real and imaginary;
- to teach the application of Information Technology and Digital Literacy to children's learning across the curriculum;
- to explore the value of IT, both to children and to society in general;
- to examine issues of security, personal safety, confidentiality and accuracy;
- to develop the cross-curricular use of IT in all subjects.

2 Teaching and learning style

2.1

As an objective of teaching of Computing is to equip children with the technological skill to become independent learners, the teaching style that we adopt is as active and practical as possible. While, at times, we do give children direct instruction on how to use hardware or software, the main emphasis of our teaching in Computing is for individuals or groups of children to use computers to help them to progress in whatever they are studying. So, for example, children might research a history topic by using role-play software that engages them in a highly visual way, or they might place themselves in a historical setting by manipulating a digital photograph, or they might investigate a particular issue on the Internet. The following subject content will be taught in each Key Stage:

Key Stage 1

Pupils should be taught to:

- 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
- organise, store, manipulate and retrieve data in a range of digital formats

- communicate safely and respectfully online, keeping personal information private, and recognise common uses of information technology beyond school.

Key Stage 2

Pupils should be taught to:

- design and write 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; generate appropriate inputs and predicted outputs to test programs
- use logical reasoning to explain how a simple algorithm works 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
- describe how internet search engines find and store data; use search engines effectively; be discerning in evaluating digital content; respect individuals and intellectual property; use technology responsibly, securely and safely
- select, use and combine a variety of software (including internet services) on a range of digital devices to accomplish given goals, including collecting, analysing, evaluating and presenting data and information.

2.2

We recognise that both key stages have children with a wide range of computing abilities. This is especially true when some children have access to IT equipment at home, while others do not. We provide suitable learning opportunities for all children by matching the challenge of the task to the ability and experience of the child. We achieve this in a variety of ways:

- setting tasks which are open-ended and can have a variety of responses;
- setting tasks of increasing difficulty (not all children complete all tasks);
- grouping children by ability in the room, and setting different tasks for each ability group;
- providing resources of different complexity that are matched to the ability of the child;
- using classroom assistants to support the work of individual children or groups of children.

3 Computing and curriculum planning

3.1 Computing is a foundation subject in the National Curriculum. The school uses the national scheme of work as the basis for its curriculum planning. In line with the new National Curriculum all planning and objectives will clearly cover the three aspects of the computing curriculum: computer science (CS), information technology (IT) and digital literacy (DL). The core of computing is computer science, in which pupils 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, pupils are equipped to use information technology to create programs, systems and a range of content. Computing also ensures that pupils 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.

One way of thinking about these aspects is as the foundations, applications and implications of computing. The aims for the subject as a whole reflect this distinction.

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.

3.2

We carry out the curriculum planning in Computing in three phases (long-term, medium-term and short-term). The long-term plan (Curriculum Plan) maps the computing topics that the children study in each term during each key stage and is a two year rolling cycle to ensure complete coverage. The children often study computing as part of their work in other subject areas. Our long-term computing plan shows how teaching units are distributed across the year groups, and how these fit together to ensure progression within the curriculum plan.

3.3

Our medium-term plans, which we have adopted from the national curriculum and Quigley's Essentials Curriculum, give details of each unit of work for each term. They identify the key learning objectives for each unit of work. As we have mixed-age classes, we do our medium-term planning on a two-year rotation cycle. In this way, we ensure that we cover the National Curriculum without repeating topics.

3.4

The class teacher is responsible for writing the short-term plans with the computing component of each lesson. These plans list the specific learning objectives and expected outcomes for each section of work. The class teacher shows these to the head on request and will be submitted as evidence when computing lessons are observed.

3.5

The topics studied in computing are planned to build on prior learning. While we offer opportunities for children of all abilities to develop their skills and knowledge in each unit, we also plan progression into the scheme of work, so that the children are increasingly challenged as they move up through the school.

3.6

Parents and carers are assured that their child's use of the internet at school is always supervised. Access is monitored and screened by our IT provider with alerts being provided when attempts are made to view inappropriate content.

4 The Foundation Stage

4.1

We teach the use of IT in reception as an integral part of the topic work covered during the year. As the reception class is part of the Foundation Stage of the National Curriculum, we relate the computing aspects of the children's work to the objectives set out in the Early Learning Goals (ELGs) which underpin the curriculum planning for children aged three to five. The children have the opportunity to use the computers, Laptops, microphones, a

digital camera and a floor robot. Then, during the year, they gain confidence and start using the computer to find out information and to communicate in a variety of ways.

5 The contribution of computing to teaching in other curriculum areas

5.1

The teaching of computing contributes to teaching and learning in all curriculum areas. It also offers ways of impacting on learning which are not possible with conventional methods. Teachers use software to present information visually, dynamically and interactively, so that children understand concepts more quickly. For example, graphics work links in closely with work in art, and work using databases supports work in mathematics, while role-play simulations and the Internet prove very useful for research in humanities subjects. Computing enables children to present their information and conclusions in the most appropriate way. Much of the software we use is generic and can therefore be used in several curriculum areas.

5.2 Seesaw

Seesaw is an online learning platform that is utilised in school to support both teachers and pupils. It provides the opportunity for pupils to demonstrate their knowledge and understanding through a variety of mediums, such as photographs, video and audio recordings, written work, or a combination of them. This is a particularly powerful tool for students who find writing difficult, including those with additional needs. Seesaw also supports teachers in assessing pupils against the Milestone Indicators and aims to reduce workload.

5.3 English

Computing is a major contributor to the teaching of English. As the children develop mouse and keyboard skills, they learn how to edit and revise text on a computer. They have the opportunity to develop their writing skills by communicating via e-mail. They also learn how to improve the presentation of their work by using desktop publishing software. There is in addition a variety of software which targets specific reading, grammar and spelling skills.

5.4 Mathematics

Children use computing in mathematics to collect data, make predictions, analyse results, and present information graphically. Screen robots allow pupils to give exact instructions for a particular route, or to use their knowledge of angles to draw a range of polygons. The use of Scratch in coding further supports mathematical understanding, such as coordinates and angles. In addition to this, computing is used to support fluency and problem solving in mathematics using online applications such as Mathletics. With Year 4 Multiplication Tables Check being carried out on laptops / tablets, pupils use technology to increase fluency in both their multiplication tables and computing ability.

5.5 Science

Software is used to animate and model scientific concepts, and to allow children to investigate processes which it would be impracticable to do directly in the classroom. Data loggers are used to assist in the collection of data and in producing tables and graphs. A strong emphasis is now on pupils writing their own algorithms and control processes.

5.6 Personal, social and health education (PSHE) and citizenship

IT makes a contribution to the teaching of PSHE and citizenship in that children in computer classes learn to work together in a collaborative manner. They also develop a sense of global citizenship by using the Internet and e-mail. We aim to develop a set of safe and discriminating behaviours for pupils to adopt when using the Internet and other technologies. Through discussion of safety and other issues related to electronic

communication, the children develop their own view about the use and misuse of computing, and they also gain an insight into the interdependence of computer users around the world.

5.7 Spiritual, moral, social and cultural development (SMSC)

Computing is used to empower pupils by promoting their self-esteem through various opportunities to present their work to other and by teaching them how to harness the power of the internet to support them in their endeavours. Pupils are taught the benefits and potential dangers of the internet, and how best to handle a wide array of situations, including cyber bullying. In addition to this, they explore the moral issues associated with the computing, such as copyright and plagiarism.

6 Computing and remote learning

- 6.1 The school uses Microsoft Teams and Seesaw to deliver remote learning to families. This platform allows pupils who are unable to attend school to access the curriculum. Teachers can assign, mark and provide feedback to activities, whereas pupils can access resources and upload evidence of any work that has been completed.
- 6.2 Microsoft Teams and Seesaw provide a link between home and school. Families can communicate with teachers via chat rooms and through the use of their class notebook. The class notebook feature has a wide variety of uses, one of which is a reading diary that can be accessed by parents and school staff. Additionally, they can be assigned work and also view work completed at school.
- 6.3 For more detailed information about remote learning, please refer to the 'Remote + Blended Learning Policy'.

7 Computing and inclusion

7.1

At our schools, we teach computing to all children, whatever their ability and individual needs. Computing forms part of the school curriculum policy to provide a broad and balanced education to all children. Through our teaching, we provide learning opportunities that enable all pupils to make good progress. We strive hard to meet the needs of those pupils with special educational needs, those with disabilities, those with special gifts and talents, and those learning English as an additional language, and we take all reasonable steps to achieve this.

7.2

When progress falls significantly outside the expected range, the child may have special educational needs. Our assessment process looks at a range of factors – classroom organisation, teaching materials, teaching style, differentiation – so that we can take some additional or different action to enable the child to learn more effectively (e.g. a lot of software can be differently configured for different ability ranges). Assessing progress against the National Curriculum levels of attainment allows us to evaluate each child's progress against expected levels. This ensures that our teaching is matched to the child's needs.

7.3

Children with special education needs will be added to the school's provision map. This will specify any additional support a child will receive. The additional support may include, as appropriate, specific targets relating to IT. In some instances, the use of technology has a

considerable impact on the quality of work that children produce, by increasing their confidence and motivation, as well as providing them with alternative ways of presenting their work (verbal, visual, concrete etc). This is achieved through the use of Seesaw.

7.4

We enable pupils to have access to the full range of activities involved in learning computing and computer science. We have a range of software which is designed to include all learners. Our hardware can be upgraded to accept a range of input devices catering to pupils with specific difficulties.

8 Assessment for learning

8.1

Teachers will assess children's work by making informal judgements during lessons. On completion of a piece of work, the teacher assesses the work, and uses this assessment to plan for future learning. Written or verbal feedback is given to the child to help guide his/her progress. Older children are encouraged to make judgements about how they can improve their own work.

8.2

Work uploaded to Seesaw is used by teachers to assess pupils' knowledge and understanding against the Milestone Indicators. As mentioned earlier in the document, it allows students to capture their learning through various different mediums that best supports their needs.

9 Resources

9.1

Our schools have an appropriate computer-to-pupil ratio, and Internet access. Most software is already installed on iPads and Laptops.

9.2

We budget for Computing support from providers to keep our equipment in good working order. Members of staff report faults in the book provided for that purpose. The technician will also set up new equipment and install software and peripherals.

9.3

Teachers have their own laptops which have been provided by the school.

9.4

In order to keep our schools' computers virus-free, no software from home will be installed on school computers. Where teachers are transferring files between their home and school, they must have up-to-date virus protection software on their home computers.

9.5

The school subscribes to Office 365. Staff and governors have log-in details to access work and important school information.

10 Monitoring and review

10.1

The coordination and planning of the Computing curriculum are the responsibility of the co-ordinator, who also:

- supports colleagues in their teaching, by keeping informed about current developments and by providing a strategic lead and direction for this subject;

10.2

The quality of teaching and learning is monitored and evaluated by the headteacher as part of the school's agreed cycle of lesson observations.

10.3

This policy will be reviewed at least every two years.

Signed: W.Smith

Date: 7/2/2025

Appendix 1

E-safety

Purpose

The purpose of this policy is to allow children to learn about and explore the internet in a safe and secure environment, with particular regard to the use of online gaming and video publishing websites (e.g. YouTube). In addition to this, there is a growing need to understand the appropriate use of social media, including the use of online chats, such as WhatsApp.

Internet use is a part of the statutory curriculum and a necessary tool for staff and pupils and so we believe that children should have the opportunity to access it as part of their education.

Access

Children will have access to the internet during the school day as part of their classwork or homework.

The school utilises SurfProtect Web Filtering service to prevent any access to harmful, inappropriate, and dangerous websites that may contain phishing/pharming attacks, malware and spyware, or objectionable content.

Prevent duty

Since July 1 2015 there has been a duty on schools to have 'due regard to the need to prevent people from being drawn into terrorism'. This is called the *Prevent* duty.

Children are taught how to stay safe online and are made aware of the dangers of interacting with people online.

Email

Staff and governors have Office 365 email accounts. These are the only email accounts that are approved for use in school.

Children must report any offensive or inappropriate messages / emails to a teacher immediately.

Children must not reveal any personal information of themselves or others in emails / messages, or arrange to meet anyone without specific permission.

The school has the login details for all accounts and they can be accessed if any of the situations above are reported.

E-safety in class

E-safety is addressed in all classes at the school and is revisited every year.

As they progress through the school, children will be taught the SMART tips on how to stay safe on the internet (from Childnet International – www.childnet.com).

Teachers use Quigley's Essentials to inform their planning of E-safety as well using resources from The Child Exploitation and Online Protection Centre (CEOP) and Twinkl.

Seesaw