



Policy	Computing Policy
Last reviewed on	December 2023
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Signatories	 Acting Headteacher

Wheatfields Primary School Computing Policy

Introduction

The use of computers and computer systems is an integral part of the National Curriculum and knowing how they work is a key life skill. Almost everything we do at school involves the use of technology:

- online lesson research, teaching plans and resource materials
- lesson delivery via interactive whiteboards
- communication with parents by e-mail, class dojo and the school website
- document distribution and storage for pupils and staff
- assessment information analysis
- production and editing of reports
- digital photography and film

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 in a safe environment. We also help them develop the necessary skills for using information in an effective way. This is a major part of enabling children to be confident, creative and independent learners.

Aims

The objectives of teaching Computing are to enable children:

- to respond to new developments in technology and equip them to use digital technologies throughout their lives
- to develop an understanding of how to use computers and digital technologies safely and responsibly
- to provide a balanced and enjoyable Computing curriculum
- to explore their attitudes towards Computing and its value to them and society in general.
- to apply their Computing skills and knowledge to their learning in other areas.

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.

Rationale

Our school believes that use of computer science and digital literacy:

- is an essential life skill necessary to fully participate in the modern digital world.
- can motivate and enthuse pupils
- offers opportunities for communication and collaboration both inside and outside of school
- provides access to a rich and varied source of information and content.
- allows children to become creators of digital content rather than simply consumers of it.
- has the flexibility to meet the individual needs and abilities of each pupil.

1 Teaching and learning style

1.1 An objective of teaching of Computing is to equip children with the technological skills 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 children to understand Computing processes and apply this understanding to a wide range of technologies.

1.2 We provide suitable learning opportunities for children of all abilities by matching the challenge of the task to the ability and experience of the child. We achieve this in a variety of ways:

- giving opportunities for children with good understanding to share their understanding and help others
- setting tasks which are open-ended and can have a variety of responses;
- setting tasks of increasing difficulty depending on ability
- 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.

2 Computing curriculum planning

2.1 The school uses the scheme of work from The National Centre for Computing Education (NCCE), our E-safety is covered in PSHE using the LA scheme of work.

2.2 We carry out the curriculum planning in Computing in two phases (long-term and medium-term). The long-term plan maps the Computing topics that the children study in each term during each key stage focusing on coverage of the four curriculum areas in Computing: digital literacy, understanding technology, E-safety and programming. The Computing subject leader devises this in conjunction with teaching colleagues in each year group, and 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.

2.3 Our medium-term plans, which we have adopted from the NCCE. They identify the key learning objectives for each unit of work. Due to the cross curricular nature of Computing, opportunities for Computing are indicated on plans from other areas of the curriculum. The teacher keeps these plans and the Computing subject leader is responsible for monitoring them.

2.4 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 the four areas of the curriculum: digital literacy, understanding technology, E-safety and programming, we also plan progression into the scheme of work, so that the children are increasingly challenged as they move up through the school.

3 Early Years Foundation Stage

3.1 We teach Computing to reception children as an integral part of the topic work covered during the year. As the reception year is part of the EYFS 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). The children have the opportunity to use the computers and a range of IT equipment including Ipads, floor robots and remote control vehicles. Then, during the year, they gain confidence and start using the computer to find out information and to communicate in a variety of ways.

4 Inclusion and access

4.1 At our school we strive to use IT to enhance the learning and meet the needs of all pupils regardless of their ability or previous experience with computers. We take steps to use Computing to provide learning opportunities for those pupils with special educational needs, those with disabilities, those who are gifted and talented, and those learning English as an additional language (EAL) by:

- Allocating resources in school for SEND and EAL children to enhance their learning and record their progress
- Installing software and specific applications for SEN children and 1:1 adults to access and use.
- Giving more able children in KS2 roles within the school to support children in KS1
- For children who do not have access to the internet at home via a computer, laptop or tablet they are given time at lunchtime or after school to access the online home learning websites when available and under adult supervision.

4.2 Intervention through School Action and School Action Plus will lead to the creation of an Individual Education Plan (IEP) for children with special educational needs. The IEP may include, as appropriate, specific targets relating to Computing. 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. For example an IPAD so they can access learning at their level and also for their work/progress to be recorded via photos/videos.

5 Assessment for learning

5.1 Teachers assess children's work in Computing by making informal judgements during lessons. On completion of a unit 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 and all pupils in key stage 2 carry out self assessment.

5.2 The subject leader keeps samples of the children's work in a portfolio. This demonstrates the expected level of achievement in Computing for each age group in the school.

6 Security

We take security very seriously. As such:

- a computing technician will be responsible for regularly updating anti-virus software.
- use of computing will be in line with the school's 'acceptable use policy' and 'E-safety policy'
- parents will be made aware of the 'acceptable use policy' at school entry and ks2.
- all pupils and parents will be aware of the school rules for responsible use of computing and the internet and will understand the consequence of any misuse.
- the agreed rules for safe and responsible use of IT and computing and the internet will be displayed in school.

7 The role of the subject leader

There is a Computing subject leader who is responsible for the implementation of computing policy across the school. Their role is to:

- offer help and support to all members of staff (including teaching assistants) in their teaching, planning and assessment of computing.
- provide colleagues opportunities to observe good practice in the teaching of computing.
- maintain resources and advise staff on the use of digital tools, technologies and resources.
- monitor classroom teaching or planning
- monitor the children's progression in computing, looking at examples of work of different abilities.
- manage the computing budget.
- keep up-to-date with new technological developments and communicate information and developments with colleagues

- lead staff training on new initiatives.
- attend appropriate in-service training
- have enthusiasm for Computing and encourage staff to share this enthusiasm.
- keep parents and governors informed on the implementation of Computing in the school.
- liaise with all members of staff on how to reach and improve on agreed targets

8 The role of the class teacher

Individual teachers will be responsible for ensuring that pupils in their classes have opportunities for learning computing and using their knowledge, skills and understanding of computing across the curriculum.

They will plan and deliver the requirements of the National Curriculum for Computing to the best of their ability. We set high expectations for our pupils and provide opportunities for all to achieve, including girls and boys, pupils with educational special needs, pupils with disabilities, pupils from all social and cultural backgrounds, and those from diverse linguistic backgrounds.

The class teacher's role is a vital role in the development of computing throughout the school and will ensure continued progression in learning and understanding, and create effective learning environments.

The class teacher will also:

- secure pupil motivation and engagement
- provide equality of opportunity using a range of teaching approaches and techniques
- use appropriate assessment techniques and approaches
- set suitable targets for learning as outlined in the inclusion policy.

9 Resources

The school acknowledges the need to continually maintain, update and develop its resources and to make progress towards consistent, compatible computer systems by investing in resources that will effectively deliver the objectives of the National Curriculum and support the use of IT, computer science and digital literacy across the school. Teachers are required to inform the school technician of any faults as soon as they are noticed.

Resources are all mobile so they can be used flexibly across the school.

A service level agreement with Cambridgeshire ICT services is currently in place to help support the subject leader to fulfill this role both in hardware & software.

Computing network infrastructure and equipment has been sited so that:

- Every teacher has a laptop which connects to the school network and an interactive whiteboard
- Every teacher has an class IPAD.
- There is a mobile Ipad trolley containing 15 I pads – predominately used by KS1
- Key stage 1 classes each have 4 IPADs to support children's learning
- Key stage 2 have 6 kindle fires per class for use of the AR programme.
- There are two mobile trolley containing 15 google chrome books one each for Years 4 and 6
- There are two trollies of 30 chromebooks one for Upper Key Stage 2 and one for Lower Key Stage 2
- EYFS staff each have an iPad for recording and monitoring progress via tapestry
- Each member of SLT have an iPad for recording and monitoring
- Internet access is available in all areas of the school
- Pupils may use IT and computing independently, in pairs, alongside a TA or in a group with a teacher.

- The school has a computing technician who is in school fortnightly on a Monday.

In addition, our school has the following:

Hardware

- network shared resources, including printers;
- projectors
- visualiser
- shredders
- calculators
- remote control vehicles
- Blue-bots
- Bee-bots
- Theatrical lighting in the KS2 hall
- Sound system in the KS2 hall

Software

- word-processing and desktop-publishing programs;
- programming software such as: Scratch, light bot hour and ALEX
- painting and drawing software;
- Clickr
- music composition package;
- multimedia presentation program;
- spreadsheet and database programs;
- control program and models;
- simulations;
- virus protection.

Online material

- Google classroom
- school e-mail accounts.
- On the school network, each child has their own folder to store work
- Mathletics
- Times table rock stars
- Class Dojo
- Tapestry
- Learning with parents