



**Langtoft  
Primary School**

## **Primary Computing Policy 2022-23**

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## Introduction

This policy sets out our school's vision, aims, principles and strategies for the delivery of Computing and the use of technology to support the curriculum. Alongside the school's Strategic Development Plan for Technology, it will form the basis for the development of the Computing curriculum in the school over the next 3 years.

The policy was written in 2022. Sections of the text have been drawn together from a variety of sources including the [National Curriculum for Computing \(England\)](#), the [Computing at Schools Guide for Primary Teachers](#), <https://teachcomputing.org/curriculum>, <https://computingqualityframework.org/> and <https://www.computingatschool.org.uk/>.

A major review involving all staff will take place in September 2022 although interim reviews of certain sections may take place before then.

## What is 'Computing'?

The National Curriculum Purpose of Study states that:

A high-quality computing education equips pupils to use computational thinking and creativity to understand and change the world. Computing has deep links with mathematics, science and design and technology, and provides insights into both natural and artificial systems. 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.

Whilst the Computing Curriculum has an increased focus on Computer Science including developing pupils' programming skills and their understanding of what happens 'behind the scenes', it is important that they also continue to develop their Digital Literacy and e-safety capability and our school curriculum is designed to reflect this.

## The School's Computing Curriculum

As a school, we embrace the national vision for Computing and appreciate that, to achieve this, pupils must have access to a curriculum which is 'balanced and broadly based'.

Our aim is to produce learners who are confident, discerning and effective users of technology and who also have a good understanding of computers and how computer systems work, and how they are designed and programmed.

We strive to achieve this aim by:

- supporting all children in using technology with purpose and enjoyment
- Meeting, and building on the minimum requirement set out in the National Curriculum as fully as possible and helping all children to achieve the highest possible standards of achievement
- Helping all children to develop the underlying skills and capability which is essential to developing Computing capability (such as problem solving, perseverance, learning from mistakes) and apply them elsewhere
- helping all children to develop the necessary skills to exploit the potential of technology and to become autonomous and discerning users
- helping all children to evaluate the benefits and risks of technology, its impact on society and how to manage their use of it safely and respectfully.
- using technology to develop partnerships beyond the school

- celebrating success in the use of technology.

At Langtoft Primary School, teachers are encouraged to progressively develop pupils' computing skills and capability through discrete learning opportunities, and also to exploit this capability as a tool to support objectives in other curriculum areas meaningfully. These links include, but are not limited to, the use of a range of digital devices in a wide range of contexts. Both plugged and unplugged learning opportunities are planned to support pupils' understanding of the underlying concepts in Computing. These opportunities may well be presented within other subject areas (e.g. sequencing instructions in English, problems solving in Maths or isolating variables in Science).

In this way Computing and the use of technology become integrated into the curriculum and are used as a truly beneficial tool for learning.

At Key Stages 1 and 2, the planning, organisation and delivery of the Computing curriculum is supported by <https://teachcomputing.org/curriculum>. In the EYFS, opportunities for the use of technology are an integral part of each area of learning. We are supported by <https://www.barefootcomputing.org/my-barefoot> for computational thinking in Early Years and [https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/896323/UKCIS\\_Education\\_for\\_a\\_Connected\\_World\\_.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/896323/UKCIS_Education_for_a_Connected_World_.pdf) to provide a framework in preparation for digital life. The school ensures that children have access to both continuous and enhanced provision. Links are made between the EYFS Early Learning Goals and the Y1 curriculum to ensure a smooth transition takes place.

The Teach Computing statements are designed to break the curriculum down into possible 'themes' and provide guidance on progression across and between year groups. Using these materials, the school has developed its own flexible scheme of work for Computing which is adapted regularly to allow pupils' capability to be used effectively in other curriculum areas.

At Key Stages 1 and 2 the school's Computing curriculum is organised into the following aspects:

- Computing Systems and Networks
- Creating Media
- Data and Information
- Programming

These themes are mapped in a long term plan for the whole school, with elements of each theme taught in most terms.

## **Safeguarding Children: Online Safety**

At Langtoft Primary School we believe that the use of technology in schools brings great benefits. To live, learn and work successfully in an increasingly complex and information-rich society, our children must be able to use technology effectively. The use of these exciting and innovative technology tools in school and at home has been shown to raise educational standards and promote pupil achievement. Yet at the same time we recognise that the use of these technologies can put young people at risk within and outside the school.

The school has developed a separate policy which details our approach to online safety and safeguarding children and staff when using technology both within and beyond the school. This policy has been developed according to national guidance provided at [https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/811796/Teaching\\_online\\_safety\\_in\\_school.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/811796/Teaching_online_safety_in_school.pdf) and support from <https://projectevolve.co.uk/toolkit/>. This includes reference to the online safety elements of the National Curriculum for Computing and the statutory Relationships and Health Education curriculum. It takes into account the government's '[Teaching online safety in schools](#)' guidance and '[Education for a Connected World](#)' from the UK Council for Internet Safety.

## Teaching and Learning Approaches

When delivering the National Curriculum for Computing, teachers are expected to employ a range of strategies and to use their professional judgement to decide on the most appropriate teaching and learning approach for the class, groups of pupils or individual pupils.

Approaches and strategies used may include:

- an 'unplugged' approach in order to develop their understanding of some of the underlying concepts of Computer Science
- 'plugged' activities which allow pupils to practise and demonstrate their levels of understanding.
- using presentation technology to demonstrate something to a group of pupils or the whole class
- leading a group or class discussion about the benefits and risks of technology
- individual or paired work
- collaborative group work
- pupil led demonstrations / peer mentoring. NB - Where one pupil is used to demonstrate or teach a skill to others, the teacher must feel confident that this is of benefit to all those involved.
- differentiated activities planned to allow different levels of achievement by pupils or to incorporate possibilities for extension work.
- teacher intervention where appropriate to support a pupil, reinforce an idea, teach a new point or challenge pupils' thinking.

## Access and Inclusion

Each pupil's access to technology varies greatly dependent on the nature of the activity they are involved in (e.g. some activities benefit from prolonged access to a computer whilst other are best served with brief access to a digital device for a focussed purpose). However, on average, pupils have sixty minutes allocated to Computing each week using a mixture of unplugged activities and the following technology:

- Laptops
- iPads
- Programming equipment

In addition to discrete Computing sessions, opportunities to develop and extend Computing capability are provided in other curriculum areas and technology is used to support most other subject areas.

All children have equality of access to appropriate technology in order to develop their personal Computing capability. When children are working in groups, we endeavour to ensure that their hands-on experience is equitable. We check resources, software and documentation to ensure that gender and ethnicity are reflected in a balanced way without stereotyping.

The SEND lead and Computing Subject Leader jointly advise teachers on examples of technology which can be provided to support individual children with particular physical, linguistic and educational needs, including gifted and talented pupils. Where appropriate, an external specialist is used to assess a child's specific needs.

Children with access to technology at home are encouraged to use it for educational benefit and online safety guidance is offered to both pupils and parents where appropriate. The school has identified those pupils who have limited or no access to appropriate technology outside of school and provide additional opportunities for these pupils to gain access during the school day / after school.

## Extended Opportunities for Learning

The school uses a variety of online tools and environments to extend learning opportunities beyond the classroom. In addition to facilitating remote learning (see separate policy), our online learning tools allow pupils to access learning materials and tools anytime, anywhere and provide channels of communication to both adults and children alike and break down barriers to learning. Our online learning tools are also used to teach children the skills and capabilities they need to stay safe and well in the digital world.

Other examples of Extended Opportunities for Learning at Langtoft Primary School include:

- School clubs.
- Family Learning events.
- Parental online safety events
- STEM Ambassadors in school

## Monitoring

The Computing Subject Leader follows a systematic and regular programme of evaluation and monitoring of the Computing curriculum, across the school. This is so that he can monitor the quality of education being provided to all pupils, including:

- Checking that the school's curriculum 'Implementation' matches its 'Intent'
- Evaluating the success (or otherwise) of curriculum planning and delivery
- Having an awareness of impact and be able to demonstrate progression and attainment
- Having an overview of resource and staff training needs

Monitoring is completed via a variety of methods including:

- Lesson Drop-ins
- Collecting and analysing planning
- Work scrutinies
- Gathering information from observations of other subjects
- Pupil interviews / pupils voice
- Staff interviews / feedback

As a result of monitoring, appropriate CPD opportunities are provided for staff on an individual, group and whole school basis in line with the school's wider CPD policy, School Development Plan and Strategic Technology Development Plan. A record of these opportunities is kept by the Subject Leader, CPD co-ordinator and individual members of staff.

## Recording and Assessment

Assessment of the Computing curriculum is carried out in accordance with the advice provided by Teach Computing.

We (will) ensure that:

- appropriate Assessment for Learning approaches are applied to formative assessment in order to inform future planning
- pupils' achievement and attainment is assessed and recorded on at least a termly basis
- pupils' achievement and attainment is measured against the relevant National Curriculum requirements at the end of each Key Stage and reported according to government guidelines (including statutory requirements for reporting to parents)

## Roles and Responsibilities

The role and impact of technology stretches beyond the National Curriculum for Computing and it is therefore important to acknowledge the roles and responsibilities held by key people across the school.

### **The following responsibilities are carried out by the head teacher:**

- ensuring the consistent implementation of Computing policy
- ensuring continuity between year groups
- overseeing health and safety policy and practice
- resources budget management
- ratifying the school's Strategic Development Plan for Technology
- arranging in-service support
- Leading the development and implementation of the school's e-safety policy in line with other Child Protection policies

### **The following responsibilities are carried out by the Computing Subject Leader:**

- presenting exemplary practice in the teaching of Computing
- advising colleagues on planning, delivering and assessing Computing
- Monitoring the effective use of technology and giving advice where appropriate
- ensuring progression in Computing
- suggested purchasing plans for hardware and software
- organising Computing resources
- identifying what support / CPD is needed by individual staff / groups of staff / the whole school
- reviewing and revising the Computing policy and other associated documents
- Co-ordinating and overseeing equipment maintenance

## **Safe Disposal of Equipment**

Government regulations state that any old electrical or electronic equipment must be disposed of in an environmentally responsible way. The regulations which govern this are the [Waste Electrical and Electronic Equipment Regulations](#) (WEEE) 2006 and 2013. Schools are therefore required to have a compliant process for disposing of waste electronic and electrical equipment (anything that requires batteries or a plug to operate).

The school acts in accordance with advice gained through <https://ark.me.uk/> regarding safe disposal of equipment. In particular, electrical equipment is safely disposed of (and wiped where necessary) through an Asset Disposal Service provided by ARK ICT Solutions and the appropriate certificates are obtained and kept by the school office.

## **Health and safety**

Both staff and children are aware of the need for health and safety to be kept in mind when using technology. Signs displaying relevant warnings are displayed around the school and regular attention is drawn to the issue of safe use of equipment. In particular, the following safety issues have been considered when using technology in school:

*Comfort* - users should be comfortably positioned with easy access to all equipment.

*Space* - There should be enough space around a workstation including special educational equipment and peripherals.

*Seating* – this has been chosen so that it is the correct height for knees to fit comfortably under the desk.

*Monitors* - These should be moved to suit the needs of the users.

*Keyboards* - Users should have the option to have their keyboard flat or tilted and move it to a comfortable position.

*Cables* - Are covered and secure. Children are not to connect or unplug electrical equipment.

*Digital Projectors* – Users are aware that they must not look directly into the light beam emitting from the digital projector.

All pupils are taught to handle equipment correctly and to switch computers on and off using the correct procedures. The dangers of electricity are stressed and all of the above are presented so as to ensure the pupils respect the equipment and respect other people's work on the computer. All users are also reminded of the need to take regular breaks when using electrical equipment.

## **Copyright**

The school takes its rights and responsibilities in relation to copyright seriously and a whole school documents detailing this approach is available.

We refer to the advice provided by the IPO ([Intellectual Property Office](#)), CLA ([Copyright Licensing Agency](#)) and other organisations to guide us in the appropriate use of materials in school. Schools are allowed limited use of copyright works without permission of the copyright owner and staff are guided to [www.copyrightandschools.org](http://www.copyrightandschools.org) for guidance on specific queries they have around what they can and cannot use.

The school is also aware of the [changes in Copyright Law introduced in June 2014](#) and works within these regulations, especially when using materials digitally. Further information can be found via the [IPO's 'teaching exceptions' page](#).