

## Wilkinson Primary School Computing Policy - Contents

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## Introduction:

This policy expresses the school's purpose for the teaching and learning of Computing. It sets out the aims; planning of the curriculum and assessment and monitoring based on the Computing programmes of study (POS) for Key Stages 1 and 2 (*DfE September 2014*).

Written by:	Mr P. Cheshire
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## Context

The use of information and communication technology has become an integral, even essential, part of everyday life, especially for young people. Children no longer just have access to a computer in the home; smart phones, smart watches, smart speakers, tablets and other devices can be used to acquire, organise, store, manipulate, interpret, communicate and present information and such devices are used by even the youngest children.

Many of children in Wilkinson Primary School are increasingly adept at using technology, to present, communicate, create, share, edit, photograph, learn, find out, explore and research. However, it is important that we ensure that all pupils in our school are equipped with the skills they will require to operate within the technological world described above.

Therefore...

## INTENT

...It is our intent that, by the time they leave Wilkinson Primary School, all our learners will aspire to use technology creatively to understand and change the world, becoming **digitally literate** –

able to:

- use information and communication technology confidently, competently and efficiently
- express themselves creatively, and develop their ideas through IT,
- become good digital citizens, using technologies safely and responsibly,
- to become resilient learners, solving problems and use computational thinking to achieve goals
- create, analyse, amend and review digital content

– at a level suitable for their future education and work, and as active participants in a digital world.

At Wilkinson Primary School we recognise that pupils are entitled to a high quality, structured and progressive Computing curriculum that will equip them to become digitally literate. Computing at Wilkinson will enable children to:

- Become responsible, competent, confident and creative users of information and communication technology.
- Develop computational thinking
- Understand the principles of information and computation, how digital systems work and how to put this knowledge to use through programming.
- Analyse problems in computational terms, and have repeated practical experience of writing computer programs in order to solve such problems
- Use information technology to create programs, systems and a range of content.
- Evaluate and apply information technology, including new or unfamiliar technologies, analytically to solve problems.
- use ICT to acquire, organise, store, manipulate, interpret and communicate information effectively.
- Understand how to be good digital citizens, staying safe whilst using the internet and have strategies for dealing with situations that might upset them.

We expect our pupils to:

- Develop computing skills, knowledge and understanding
- Develop an understanding of the wider applications of computer systems and communication technology in society
- Develop independent and logical thinking through reasoning, decision making and problem solving
- Develop imagination and creativity
- Work independently and collaboratively

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## IMPLEMENTATION

### Curriculum Design

The computing curriculum:

- Is specifically designed to provide a relevant, challenging and enjoyable curriculum for all pupils which **at least** meets the requirements of the national curriculum programmes of study for computing.
- Is designed to raise children's aspirations, to see computing not simply as a 'subject' but as a tool to aid, enhance and extend their learning, as an essential part of navigating the world of today and the future, and as a possible future career.
- Is based on a progression of skills which allows for:
  - the development of specific computational skills
  - revisiting (but not replicating) skills
  - building new skill upon previously taught skills
- Is centered upon the development of computational thinking and the ability to create, debug and review computer programmes to achieve goals.
- Is based on providing activities which are relevant to real life, for example future employment, ongoing education and the ability to function safely in a digital world.

Therefore themes are revisited either annually or bi annually, more time is devoted towards the process of coding and activities and applications are biased towards those that will be found in real life.

Pupils will develop a growing awareness of how technology is used in the world around them and of the benefits that it provides. They will be supported to evaluate and use information technology, including new or unfamiliar technologies.

Pupils have access to a variety of devices and resources and are encouraged to reflect on the choices they make to use them.

Pupils will be given additional opportunities to create their own programmes (games, animations, quizzes). They will apply previously learned coding skills and build on these using a variety of age appropriate programming languages.



## **Curriculum coverage and progression:**

- Planning for Computing is implemented using two core documents: the National Curriculum Programme of Study for Computing and the Statutory Framework for Early Years Foundation Stage
- Coverage and progression are ensured by basing the teaching of specific computing skills on a specific skills progression.
- Long term planning has been developed using a wide range of resources including the former Wolverhampton Learning Technologies Team Computing Scheme of Work, units of work from Engagedu (Squirrel learning), BBC MicroBit and demonstrates coverage and progression of the attainment targets and expectations for Key Stage 1 and Key Stage 2 as identified in the Computing POS.
- Medium term planning takes account of differentiation and progression and is based on the former Wolverhampton Learning Technologies Team Computing Scheme of Work, units of work from Engagedu (Squirrel learning), BBC MicroBit, the Rising Stars 'Switched on to ICT' Scheme, and some bespoke units of work developed within the school.
- Exemplification planning by the former Wolverhampton Learning Technologies Team, (Squirrel learning), BBC MicroBit, has been used to support short term planning.
- The computer science aspects of Computing are taught within the school's Creative Curriculum, ensuring that skills are taught within the termly topics allowing the children to see purpose and context their work.
- Key skills in information technology are taught within the Creative Curriculum and are also integrated into learning in other curriculum areas.
- Digital Broadcasting (Podcasting) is further developed through the use of the school's radio station.
- Digital Safety is based on 'Project Evolve', which empowers learners to think critically, behave safely, and participate responsibly in our digital world. Digital Safety is integrated within the PSHE/RSE curriculum and the Computing curriculum, each half term having a particular theme.
- Opportunities for technology as a tool to support learning and teaching in all areas are identified in curriculum planning.

## **Assessment:**

- Progress is assessed on an on-going basis against statements identified within the planning regarding what all learners, most learners and some learners will achieve. This ensures teachers are aware of individual pupil's progress in computer science, information technology and digital literacy.
- Self and formative assessment is used by the class teacher during whole class or group teaching. Children's confidence and difficulties are observed and use to inform future planning.
- At the end of each unit each class teacher creates an assessment record, indicating which pupils have achieved what all learners, most learners and some learners will achieve, including those that may be working below these statement of attainment. This is passed on to the Curriculum Coordinator.



- Children may use the school's self-assessment system (traffic lights) to assess their own learning.
- Open questions are used to challenge children's thinking and learning.
- Children are encouraged to evaluate their own and others' work in a positive and supportive environment, including peer assessment of the outcomes of each unit of work.
- Teacher's judgments are supported through an electronic portfolio of evidence which provides examples of age-expected attainment.
- Information is shared with the school community through the school website, display, celebration events, newsletters, and end of year reports.

### **Early Years:**

- Pupils build confidence to use technology purposefully to support their learning for all Early Learning Goals as appropriate.
- Pupils in Foundation Stage will have experiences using technology indoors, outdoors and through role play in both child-initiated and teacher-directed time.
- The Foundation Stage staff use the EYFS to plan for technology in a range of contexts.
- Pupil's experience of early computing skills will be developed in a practical and concrete manner and may not involve the use of any recognizable technologies.
- Children will make use of real and virtual programmable toys to develop their skills in both teacher led and other activities

### **Online safety:**

- A progressive online safety curriculum is in place utilising 'Project Evolve', which empowers learners to think critically, behave safely, and participate responsibly in our digital world ensures that all pupils are able to develop skills to keep them safe online.
- 'Project Evolve' involves completing an initial assessment of children's knowledge (emerging, developing, secure) of each of the covered areas; Self Image and Identity, Online Relationships, Online Reputation, Managing Online Info, Health Wellbeing Lifestyle and Online Bullying; in order to pinpoint children's needs in each of these areas and allowing teaching to be targeted to these needs.
- Opportunities for learning about online safety are part of PSHE and RSE curriculum, and are reinforced whenever technology is used.
- Parents and pupils sign an acceptable user policy together when a pupil first starts at the school. The class rules are then signed annually by pupils and shared with parents.
- 'Project Evolve', is used to ensure progression and coverage; and provides positive rewards for responsible use of technology.
- The school supports the international Safer Internet Day each February and provides opportunities for pupils to consider cyberbullying as part of Anti-Bullying week in the autumn term.
- Opportunities are taken whenever possible to reinforce messages of a healthy life style.
- The school has a Digital Safety policy in place that details how the principles of online safety will be promoted and monitored.



## **Monitoring:**

- The impact of the Computing curriculum is monitored regularly by the Computing subject leader through pupil discussion, samples of work, discussion with teachers, an electronic portfolio and lesson observations.
- Feedback from monitoring is given to individuals and groups in order to improve performance.
- Systematic monitoring of all threads of Computing informs the subject leader of issues for development to be included in the school development plan.
- The Computing leader conducts regular audits of the training needs of teachers and teaching assistants to improve their subject knowledge and confidence. Requests for training in Computing can be part of individual teacher's performance management plan.

## **Equal opportunities:**

- The school maintains its policy of equal opportunities as appropriate for Computing.
- Computers and related technology are made available to all pupils regardless of gender, race or abilities.
- The class teacher differentiates work by task, resource or support, to ensure the individual needs of more able and SEN pupils are met.
- It is important to note that a pupil with SEN in English or Maths (for example) will not necessarily have SEN in Computing. Staff are aware that mixed ability pairings may be effective in certain circumstances but should be aware of a more able child dominating the pair.
- The school is aware that not all pupils have the same access to computers at home and this is considered by staff in the planning and delivery of the curriculum – for example through the use of homework clubs or resources being made available to individual children at a lunch time.

## **Resources:**

- The school has a range of physical resources to support the delivery of the Computing curriculum:
  - Available in each classroom
    - Laptops
    - Interactive Whiteboard (SMART Notebook)
  - Available in Key Stage 1 and 2 base
    - iPads
  - Available in the Early Years
    - iPads
    - Bee-Bots (also available in KS1)
    - Programmable Robots
  - Available across school
    - BBC MicroBits
    - Virtual Reality Headsets (Class VR)
    - 360° Cameras

Additionally, each member of staff is provided with a laptop and each class has an iPad.



- Online tools are used as part of the experience of pupils. These include:
  - Google Classroom
  - Purple Mash
  - My Maths
  - Symphony Math
  - Charanga Music
  - Scratch
  - BBC MicroBit

The school utilises an Office 365 Domain, which has:

- A staff area for the effective, offsite storage and availability of planning (LTP, MTP and Weekly Planning), assessment records, lesson resources, evidence, photographs, videoa, documents, calendars, diaries and notices.

Staff also have access to One Drive to enable them to work efficiently both on and off site without the requirement to carry/transport portable storage devices.

The school also utilises Google Classroom, to which all children have access, and provides access for remote learning. Children are able to

- create electronic content
  - complete work electronically
  - create and complete surveys
  - participate in remote live lessons
  - participate in recorded remote lessons
  - create blogs
  - media publishing
- The Computing subject leader keeps up to date with new technologies and reviews the school's provision, as well as maintaining the existing resources in partnership with the school's technology support provider.
  - Technical support is provided by ConceroUK, a technician is allocated to the school. The technician attends school on whole one day a week and is also available to remotely attend to faults.
  - Hardware and software faults should be logged for attention by the school's technician by using CONceroUK's ticketing system. Some faults can be addressed directly through the Computing Coordinator who will liaise with the technician.
  - The Computing Action Plan expresses the school's priorities for future expenditure and is reviewed by the Computing subject leader, governors and senior management who consider its impact on all learning.
  - Governors and senior management ensure that they achieve value for money by implementing the principles of best value in evaluating, planning, procuring and using technology.
  - Old resources are disposed of in line with Wolverhampton L.A.'s environmental disposal policy and the school's data protection policy where these are applicable.



## **Roles and responsibilities:**

- The school community works together to ensure the implementation of the Computing policy.
- The subject leader is responsible for monitoring curriculum coverage and the impact of learning and teaching; and assists colleagues in its implementation.
- The subject leader will ensure they have up-to-date knowledge of current issues in computing, latest effective applications and software, trends, local and national priorities and developments, and statutory requirements.
- The subject leader will arrange for, or provide, staff training as required.
- The subject leader will support staff members in the delivery of individual lessons or sequences of lessons.
- Subject leaders in other curriculum areas are responsible for recognising the links between computing and English, Mathematics, Science and foundation subjects; and planning to use these to support learning across the school.
- The Computing subject leader provides an annual report to governors on the impact of the Computing curriculum and how resources are being effectively deployed. Governors may include Computing in their learning walks around the school.
- The class teacher is responsible for delivering an effective Computing curriculum and integrating this into their planning for other subject areas where this is appropriate.
- The school receives technical support from Wolverhampton's e-Services team and the technician is responsible for the maintenance of computers and other technologies, the school network and keeping software up to date. The subject leader liaises with the technician to ensure that the systems are running efficiently.

## **Health and safety:**

- Age appropriate class and safety rules are displayed in the learning environment.
- The school has an effective policy and scheme to support the teaching of digital Safeguarding
- Equipment is maintained to meet agreed safety standards.
- From Foundation Stage, pupils are taught to respect and care for technology equipment.
- Further guidance can be found in the school's health and safety policy.



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## **Links to other Policies:**

This policy links to:

- Digital Safeguarding
- Online/Remote Learning Policy
- Safeguarding and Child Protection
- PSHE
- RSE
- SEND
- Health and Safety
- Data Protection
- Early Years
- All other curriculum policies

## **Review:**

- This policy will be reviewed annually by the Computing subject leader and leadership team and shared with the school community.