



Computing Curriculum Policy

Rationale

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 Spire Junior School, teachers are encouraged to progressively develop pupils' Computing skills and capability through discrete learning intentions, 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 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.

The Computing curriculum is organised into the following aspects:

- Computer Science (Understanding Technology & Programming)
- Digital Literacy
- Online-safety

These themes are mapped in a long term plan for the whole school, with elements of each theme taught in most terms (online-safety to be taught each half term).

Intentions

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 style for the class, groups of pupils or individual pupils.

Organisation

The school acknowledges the need to continually maintain, update and develop its resources and to make progress towards a consistent, compatible system by investing in resources that will effectively deliver the strands of the national curriculum and support the use of computing across the curriculum. Each member of staff has access to a laptop which is used in the classroom. There is also a class set of 25 iPad with an iPad trolley for Y5/6 as well as an additional trolley for Y3/4 with 31 iPads. Each room has an interactive whiteboard. All classrooms have computer and all the iPads have wifi network. In addition to this, we have two Chromebook Trolleys for Y3/4 and Y5/6 with 63 Chromebooks in total. The school also has a class set of Crumbles and MicroBits which aid the teaching of programming.

Equal Opportunities 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 an iPad whilst others are best served with brief access to a digital device for a focussed purpose). However, on average, pupils have one hour allocated to Computing each week.

Teaching and Learning

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.

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

At Spire Junior School we acknowledge our responsibility to provide a broad and balanced curriculum for all pupils. The following three principles will be applied to provide a more inclusive curriculum;

- Setting suitable learning challenges
- Responding to pupils' diverse learning needs
- Overcoming potential barriers to learning and assessment for individuals and groups of pupils.

Our Computing Curriculum follows a two-year cycle to ensure that the curriculum caters for our mixed year groups. The long-term overview ensures that all aspects of the Computing curriculum are taught progressively.

Computing Curriculum- With Resources					
Year group	Term 1	Term 2	Term 3	Term 4	Term 5
Y3/4 Cycle A	Computing systems and networks Y3- Lessons 1-3 (Y4- Lessons 4-6)	Programming - Sequence in music (3) Scratch	Data and information - Branching databases (3) www.jde.com (Chromebook)	Programming - Repetition in shapes (4) turtleacademy.com/playground melogo.sourceforge.net	Creating Desktop pages (5) Book e
Y3/4 Cycle B	Computing systems and networks Y3- Lessons 4-6 Y4- Lessons 1-3 World Wide Web	Programming - events and actions (3) Scratch	Data and information - Data logging (4) Data loggers- Arduino Science journal	Programming - Repetition in games (4) Scratch	Creating Audio (4) GarageBand (Ip
Year 5	Computing systems and networks - Sharing information	Programming - selection in physical computing Crumble	Data and information - Flat-file databases www.jde.com (Chromebook)	Programming - Selection in quizzes Scratch	Creating Video (iMovie
Year 6	Computing systems and networks - Communication	Programming - Sensing micro:bit	Data and information - Spreadsheets Numbers (iPad)	SATS Revision	SATS R

Assessment and Record Keeping

On going assessment is an integral part of good practice so as to enable the teacher to match work to the abilities and needs of the pupils as they progress. Computing lessons are to be recorded on the pupil's Seesaw page.

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 she can:

- Check that the full curriculum is being delivered effectively
- Evaluate the success (or otherwise) of curriculum planning and delivery
- Have an awareness of impact and be able to demonstrate progression and attainment
- Have an overview of resource and staff training needs

Monitoring is completed via a variety of methods including:

- Observations
- 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.

Roles and Responsibilities

The Computing Scheme of Work sets out the details of the programs that will be used and the skills that should be taught and developed by each year group. The Headteacher has responsibility for ensuring that the policy is used and updated when necessary and for the effective teaching and learning of computing throughout the school. The computing co-ordinator is responsible for the Scheme of Work and the management of changes in curriculum and resources. The computing co-ordinator is also responsible for monitoring the teaching of computing to all pupils. The co-ordinator will be involved in monitoring class teachers curriculum planning and will provide necessary support. The technician is responsible for the upkeep and updates of all hardware and software in school.

Review

This policy and the associated Scheme of Work will be reviewed by all teaching staff and updated if required. The needs of the staff regarding the teaching of computing, either expressed directly or identified by the computing coordinator will inform the school development plan.