Date	Minute number	Amendment	signed
26/04/2023		Reviewed to include Equalities Act and Assessment revised statements	

St Oswald's C.E. Primary School Computing Policy 2022

This policy document outlines guidance and principles for teachers and teaching assistants to follow when delivering Computing at St Oswald's CE Primary School. We follow the Wokingham Scheme of Work for Computing which follows the National Curriculum.

Our rational for teaching Computing

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.*

Computing in the National Curriculum – A Guide for Primary School Teachers by CAS NAACE

At St Oswald's, we understand it is essential that children are equipped with the skills and knowledge to take a purposeful role in an ever-changing, technologically evolving world. Therefore, we deliver high-quality computing education that 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.

Aims

The national curriculum for computing aims to ensure that 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.

knowledge	of programming of abstraction of networks of hardware and software of online Safety
Skills	Creativity Developing, progressing and debugging programs (solving problems) Computer/digital literacy Safe, digital communication i.e. email, encouraging safe, secure collaboration
Understanding	Critical thinking, including: analysis problem-solving evaluation application prediction reasoning

The seven areas of the Wokingham Computing Curriculum

All seven areas are covered during the year.

Some strands will lend themselves to being covered through other subjects. Some benefit from a block of teaching, either two or three lessons a week for a couple of weeks, or even a whole day devoted to them. Some are the opposite, benefiting from regular revisiting through single cross-curricular lessons throughout the year. Others are somewhere in between. We revisit the online safety aspects of the curriculum each term, ensuring that the children have a deep understanding of how to keep safe.

Key Stage 1

Major units (a block of sessions to build knowledge): Programming, Coding and Controlling Devices
Minor units - longer sessions to develop an idea followed by revisiting: Collecting, Analysing, Evaluating and Presenting Data; Music and Sound
Short sessions - revisited throughout year: Digital Imagery; Multimedia; Keeping Safe in the Digital World; Keeping Safe Online.
When planning, **online safety** should also be considered **throughout all strands**. It should be repeated and developed to ensure a deeper understanding of how it affects them and others in a digital world.

Lower Key Stage 2

Major units (4-5 hours): Digital Imagery; Music and sound; Programming, Coding and Controlling Devices
Minor units (2-3 hours) followed by revisiting: Multimedia; Keeping Safe Online; Collecting, Analysing, Evaluating and Presenting Data
Short sessions - revisited throughout year: Digital Imagery; Multimedia; Keeping Safe in the Digital World
When planning, **online safety** should also be considered **throughout all strands**. It should be repeated and developed to ensure a deeper understanding of how it affects them and others in a digital world.

Upper Key stage 2

Major units (4-5 hours): Digital Imagery; Music and sound; Programming, Coding and Controlling Devices
Minor units (2-3 hours) followed by revisiting: Multimedia; Keeping Safe Online; Collecting, Analysing, Evaluating and Presenting Data
Short sessions - revisited throughout year: Digital Imagery; Multimedia; Keeping Safe in the Digital World
When planning, **online safety** should also be considered **throughout all strands**. It should be repeated and developed to ensure a deeper understanding of how it affects them and others in a digital world.

Implementation

We believe pupils should:

- Enjoy working with Computing.
- Be able to express themselves and their learning using a wide range of technology.
- Have the opportunity to use Computing across the curriculum to enhance and support learning.
- Be able to communicate confidently using Computing.
- Understand the capabilities and limitations of Computing and the implications and consequences of its use.
- Be helped to develop practical Computing skills and the ability to apply these skills.
- Use Computing to develop independent and collaborative skills.
- Recognise the power and importance of Computing in the world around them.
- Understand risks and how to stay safe online.
- Opportunities to use Computing resources across the curriculum (e.g: enquiry based work in science).

Learning Experiences through Implementation

Finding things out; by gathering information from a variety of sources entering and sorting information in a variety of forms and retrieving stored information.

Developing ideas and making things happen by using code, algorithms, texts, tables, images and sound, giving instructions and making things happen and exploring real and imaginary situations.

Exchanging and sharing information by presenting their ideas in a variety of forms (e.g: text, tables, images, sounds and presenting work effectively).

Reviewing, modifying and evaluating by describing effects of their actions and talking about what they

We believe that as teachers and support staff, it is our responsibility to:-

- Make our children aware of the benefits, opportunities of using technology, especially to communicate and undertake research.
- Enhance and develop our own Computing capabilities and knowledge.
- Use Computing to enhance the quality of teaching and learning across the whole curriculum.
- Select and use Computing resources appropriately.
- Use Computing to release any constraints on a pupil's creativity.
- Understand the role Computing will play in our pupils' lives in the future
- Highlight online risks and model responsible online behaviour.

Our IT Technician **diagnoses, repairs and maintains hardware and software components** to ensure the smooth running of computer systems within school. They are responsible for installing and configuring computer hardware and being the primary point of contact for IT support within the school.

Differentiation and assessment

It is important for all children to learn to the best of their ability. While it is beneficial for more able children to support the less able, using this too much can mean that the less able child never gets a turn (so learns little), while the more able child is held back. You will certainly want to vary how you seat the children, but if you need to seat the children in pairs, you may wish to consider similar-ability pairings.

Differentiation needs to take place: The Learning Objectives are at the top of each plan and act as a guide when deciding what children at different levels need to do.

LAPS: Lower Achieving Pupils less able children could be given a simpler task or use the same package but be taught fewer skills or scaffold their learning through the use of templates.

MAPS: Middle Achieving Pupils: Children will be working at the expected level

HAPS: Higher Achieving Pupils more able can spend more time in self and peer assessment, planning, evaluating, and improving their work.

Assessment and recording

Pupils are assessed over a half termly basis. Children are assessed against the Development matters in the EYFS or the key skills at each level of the National Curriculum.

We assess through a variety of different ways. We use formative assessment using activities which we can integrate into children's learning; quizzes, recall knowledge Mats, diagrams, videos, recordings, mind mats etc.

We assess what the children already know and then at the end of the topic/unit we assess what knowledge the children have attained.

This is then recorded termly onto I-track, enabling the next class teacher to be able to view the knowledge the child and/or cohort have acquired and then what specific knowledge gaps there are in order for them to direct their teaching.

Inclusion

All children are included within Computing teaching. Staff across the school recognise that children flourish in different areas than others and so differentiation is planned. Children who have SEND have access to ICT during the day. Laptops are available to support their needs (e.g: word shark). Children are also able to use programmable toys to support their development.

Children who are identified having the ability to achieve Greater Depth or Exceeding are supported through the curriculum so that their skills are enhanced and extended further and this is identified through differentiation.

Reporting to parents and pupils

The children are spoken to with regards to developing their skills and working on specific aspects of computing during the taught skilled sessions.

Parents are informed of the level that the children are working at in the end of year reports that their class teacher writes. There are also two parents' evenings a year when parents are informed of their child's progress.

Online Safety

Online safety is a key principle of the teaching approach in school. Children are taught to be safe online and to only go on age-related websites. There is a clear progressive Online Safety Curriculum.

Outside companies are asked to come in to school to do workshops for the children. We use Project Evolve to support the teaching of the Online Safety Curriculum.

We have an Ivengers group which leads the drive for Online Safety throughout the school. We take part in Safer Internet Day annually.

Equal Opportunities

All pupils have equal access to the use and learning of computing. Pupils are given a TA support where necessary. Appropriate aids and equipment are provided for pupils if they require it.

Equality Act 2010-Protected Characteristics

At St Oswald's we have a due regard to eliminate discrimination, harassment or victimisation when we teach Computing. We aim to remove or minimise any disadvantage connected to a relevant protected characteristic.

We tackle prejudice within Computing and promote understanding. We do not treat anyone differently based on the following protected characteristics; Age, disability, sex, race, pregnancy/maternity, marriage/civil partnership, sexual orientation, religion and/or belief, gender reassignment.

All learning and teaching in Computing is accessible for all.

Values and attitudes

Children should:

- Work with others, listening to their ideas and treating these with respect.
- Have a mature attitude to leaning Online Safety and the risks that you can face being online. Understand the importance of being safe online with the increasing use of technology in society.
- Respect the resources and equipment used in the lessons.

Planning and Development

The subject leader in conjunction with the head teacher and IT Technician is responsible for developing Computing across the school, ensuring there is a replacement policy for hardware, that equipment is maintained in order for the delivery of the curriculum to be good.

Professional Development

All members of staff have the opportunity to attend courses. Whole school training occurs through occasional Twilight meetings. We are all members of the Computing Hub which provides training online for members of staff and specific year groups.

Home School Links

Links are made via ICT with home school through the use of the website which is updated regularly. The website details how parents are able to support their child.

General information about how the curriculum is available to families and there are suggestions about how to support pupils learning outside school.

Our Instagram page keeps families updated.

We use Google Classroom to share resources and learning online

Health and Safety

All electrical equipment is tested annually. Pupils are reminded regularly about using equipment safely and there is adequate supervision.

Laptops are charged in laptop cases and leads are not allowed to trail underneath or over tables and chairs.

Ipads have cases on them and are kept in lockers.

Resources

Each key stage has a selection of Laptops and IPAD's to use and share. Each classroom has 1 laptop and interactive whiteboard for the staff member who is teaching in that room.

There is one printer in the annexe, 2 photocopiers as well as additional printers in the office.

IPads are used to record learning journeys in EYFS and laptops and cameras are used to take pictures of the children and to record assessments.

There is also an Interactive Whiteboard and laptop in the hall, along with speakers.

Budget

Devolved Formula Capital is used to improve and enhance the hardware within the school. We have a dedicated Budget coded for IT hardware

Monitoring and Review

The head teacher and subject leader for computing monitors the quality of teaching and learning of computing.

The governors are responsible for asking whether teaching and learning is good and the provision of hardware and software is accurate.

Internet Safety

Acceptable computer use

	Admin	Curriculum	Internet (filtered at ISP source)	Email
Head teacher	FULL	FULL	FULL	FULL
Deputy Head	FULL	FULL	FULL	FULL
Admin Officer	FULL	FULL	FULL	FULL
Computing lead	-	FULL	FULL	FULL
Teaching staff	-	FULL	FULL	FULL
TA's and SENTA's	-	FULL	FULL	FULL
Governors	-	FULL	FULL	FULL
Students	-	FULL	FULL	-
IT Technician	FULL	FULL	FULL	FULL

Digital Strategy

Our Digital Strategy is currently under review and will be shared with Governors and staff when completed

Data Protection;

All staff are trained in GDPR and we have a Data Protection Officer and Work closely with Derbyshire Local Authority to support all Access requests.

Policy Review Date: February 2023

Policy Signed and dated: