

<i>Date</i>	<i>Minute number</i>	<i>Amendments</i>	<i>signed</i>



Computing

Curriculum Policy

The vision of the school

'Learning and Growing Together'

Is underpinned by our school's core values of Hope, Friendship, Forgiveness, Perseverance, Respect, and Honesty.

We nurture the tiny seeds (that are each individual child and our community) to grow into the mighty tree, as Jesus describes the Kingdom of Heaven (Parable of the Mustard Seed- Matthew 13)

Individuals flourish in a school which is a safe, respectful and welcoming Christian community.

Learning-

we develop our wisdom, knowledge and skills

Growing-

in our character development, hope, aspiration, resilience and social action

Together-

so our community can live well together, showing dignity and respect.

Introduction

The use of information and communication technology is an integral part of the national curriculum and is a key skill for everyday life. computers, tablets, programmable robots, digital and video cameras are a few of the tools that can be used to acquire, organise, store, manipulate, interpret, communicate and present information. At St Oswald's CofE Primary School we recognise that pupils are entitled to quality hardware and software and a

structured and progressive approach to the learning of the skills needed to enable them to use it effectively. The purpose of this policy is to state how the school intends to make the provision for Computing.

Aims

The school's aims are to:

- provide a relevant, challenging and enjoyable curriculum for computing for all pupils;
- meet the requirements of the national curriculum programmes of study for computing;
- use ICT and computing as a tool to enhance learning throughout the curriculum;
- to respond to new developments in technology;
- to equip pupils with the confidence and capability to use ICT and computing throughout their later life;
- to develop the understanding of how to use ICT and computing safely and responsibly through using the Online Safety Document from the DFE July 2019

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

The school believes that ICT and computing:

Gives pupils immediate access to a rich source of materials.

Can present information in new ways which help pupils understand access and use it more readily.

Can motivate and enthuse pupils.

Can help pupils focus and concentrate.

Offers potential for effective group working.

Has the flexibility to meet the individual needs and abilities of each pupil.

Objectives

EYFS

It is important in the foundation stage to give children a broad, play-based experience of ICT in a range of contexts, including outdoor play. ICT is not just about computers. Early years learning environments should feature ICT scenarios based on experience in the real world, such as in role play.

Children gain confidence, control and language skills through opportunities to 'paint' on the whiteboard or drive a remote-controlled toy. Recording devices can support children to develop their communication skills. This is particularly useful with children who have English as an additional language.

By the end of key stage 1 pupils should be taught to:

that programs execute by following a sequence of instructions

write and test simple programs;

use logical reasoning to predict and computing the behaviour of simple programs organise, store, manipulate and retrieve data in a range of digital formats; and

communicate safely and respectfully online, keeping personal information private, and recognise common uses of information technology beyond school.

By the end of key stage 2 pupils should be taught to:

design and write programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts use sequence, selection, and repetition in programs;

work with variables and various forms of input and output; generate appropriate inputs and predicted outputs to test programs and use logical reasoning to explain how a simple algorithm works and to detect and correct errors in algorithms and programs understand computer networks including the internet; how they can provide multiple services, such as the world-wide web; and the opportunities they offer for communication and collaboration; describe how internet search engines find and store data; use search engines

effectively; be discerning in evaluating digital content; respect individuals and intellectual property; use technology responsibly, securely and safely

Select, use and combine a variety of software (including internet services) on a range of digital devices to accomplish given goals, including collecting, analysing, evaluating and presenting data and information.

Resources and access

The school acknowledges the need to continually maintain, update and develop its resources and to make progress towards a consistent, compatible ICT infrastructure by investing in resources that will effectively deliver the strands of the national curriculum and support the use of ICT and computing across the school. Teachers are required to inform the ICT and computing coordinator of any faults as soon as they are noticed. Resources are classroom based

ICT and computing network infrastructure and equipment has been sited so that:

Every classroom from EYFS to Yr6 has a computer connected to the school network and an interactive whiteboard with sound and DVD facilities

There is 2 laptop trolleys in school containing 40 laptops with internet access available to use in classrooms.

Pupils may use ICT and computing independently, in pairs, alongside a TA or in a group with a teacher.

The school has an ICT and computing technician.

Planning

As the school develops its resources and expertise to deliver the ICT and computing curriculum, modules will be planned in line with the national curriculum and will allow for clear progression. Modules will be designed to enable pupils to achieve stated objectives. Pupil progress towards these objectives will be recorded by teachers as part of their class recording system. Staff will follow medium term plans with objectives set out in the new national curriculum and use the same format for their weekly planning sheet. A minority of children will have particular Teaching and learning requirements which go beyond the provision for that age range and if not addressed, could create barriers to learning. This could include G&T children, those with SEN or those who have EAL. Teachers must take account of these

requirements and plan, where necessary, to support individuals or groups of pupils to enable them to participate effectively in the curriculum and assessment activities. During any teaching activities staff should bear in mind that special arrangements could be made available to support individual pupils. This is in line with the school inclusion policy. These children should be identified and discussed at pupil progress meetings to ensure appropriate provisions or interventions are put into place.

Assessment and record keeping (also see assessment policy)

Teachers regularly assess capability through observations and looking at completed work. Key objectives to be assessed are taken from the national curriculum to assess key ICT and computing skills each term. Assessing ICT and computing work is an integral part of teaching and learning and central to good practice. It should be process orientated – reviewing the way that techniques and skills are applied purposefully by pupils to demonstrate their understanding of the concepts of ICT and computing. As assessment is part of the learning process it is essential that pupils are closely involved.

Assessment can be broken down into;

Formative assessments are carried out during and following short focused tasks and activities. They provide pupils and teaching staff the opportunity to reflect on their learning in the context of the agreed success criteria. This feeds into planning for the next lesson or activity.

Summative assessment should review pupils' capability and provide a best fit level. Use of independent open ended tasks, provide opportunities for pupils to demonstrate capability in relation to the term's work.

There should be an opportunity for pupil review and identification of next steps.

Monitoring and Evaluation

The subject leader is responsible for monitoring the standard of the children's work and the quality of teaching in line with the school's monitoring cycle. This may be through lesson observations, work book scrutiny or looking at other data for the subject. The subject leader is also responsible for supporting colleagues in the teaching of computing, for being informed about current developments in the subject, and for providing a strategic lead and direction for the subject in the school. We allocate special time for the vital task of

reviewing samples of children's work and for visiting classes to observe teaching in the subject.

The role of the Computing Lead

There are Computing Lead are responsible for producing an ICT and computing development plan and for the implementation of the ICT and computing policy across the school.

To offer help and support to all members of staff (including teaching assistants) in their teaching, planning and assessment of ICT.

To maintain resources and advise staff on the use of materials, equipment and books.

To monitor classroom teaching or planning following the schools rolling programme of monitoring.

To monitor the children's ICT work, looking at samples of different abilities.

To manage the ICT budget.

To lead staff training on new initiatives.

To attend appropriate in-service training and keep staff up to date with relevant information and developments.

To have enthusiasm for mathematics and encourage staff to share this enthusiasm.

To keep parents and governors informed on the implementation of ICT in the school.

To liaise with all members of staff on how to reach and improve on agreed targets

To help staff to use assessment to inform future planning.

Security

The ICT and computing technician will be responsible for regularly updating anti-virus software.

Use of ICT and computing will be in line with the school's 'acceptable use policy/E-safety policy'.

Parents will be made aware of the 'acceptable use policy' at school entry and at ks2.

All pupils and parents will be aware of the school rules for responsible use of ICT and computing and the internet and will understand the consequence of any misuse.

Cross curricular links

As a staff we are all aware that ICT and computing capability should be achieved through core and foundation subjects. Where appropriate, ICT and computing should be incorporated into all subjects. ICT and computing should be used to support learning in other subjects as well as develop ICT and computing skills.

Parental involvement

Parents are encouraged to support the implementation of ICT and computing where possible by encouraging use of ICT and computing skills at home during home-learning tasks and through the school website. They will be made aware of e-safety and encouraged to promote this at home