

Computing Policy



St. Mary's RC Primary School

Mission Statement

- We will always open our doors wide in welcome.
- We will always love and care for each other as Jesus taught us.
- We will always place the Word of God at the heart of our School.
- We will always worship God our Father.
- We will always be witnesses to Jesus Christ by following in his footsteps.

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Policy will be reviewed: January 2021

Introduction

This policy document sets out the school's aims, principles and strategies for the delivery of the new Computing & ICT curriculum. This policy was developed in the Summer term 2017 by the Computing & ICT Curriculum Leader. It was formally adopted by staff of September 2018 and will be reviewed at regular intervals and updated as necessary by the Computing Curriculum Leader.

The Significance of Information and Communication Technology

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 Mary's RC 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 this provision.

The School's Aims

Aims

The school's aims are to:

- ☑ Provide a relevant, challenging and enjoyable curriculum for ICT and computing for all pupils.
- ☑ Meet the requirements of the national curriculum programmes of study for ICT and 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 enhance learning in other areas of the curriculum using ICT and computing.
- ☑ To develop the understanding of how to use ICT and computing safely and responsibly.

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

Cross Curricular use of Information Communication Technology

ICT is a powerful tool, which can be used to enhance teaching and learning across the curriculum, challenging the most able while supporting those with learning difficulties. Pupils will be taught and given opportunities to consolidate skills through highly motivating cross-curricular activities. This will be achieved as follows:

Objectives

Early years (see also early year's policy)

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. Outdoor exploration is an important aspect, supported by ICT toys such as metal detectors, controllable traffic lights and walkie-talkie sets. 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:

- ☑ understand what algorithms are, how they are implemented as programs on digital devices, and that programs execute by following a sequence of instructions
- ☑ write and test simple programs
- ☑ use logical reasoning to predict and compute the behaviour of simple programs
- ☑ organise, store, manipulate and retrieve data in a range of digital formats
- ☑ Communicate safely and respectfully online, keeping personal information private, and recognise common uses of information technology beyond school.

Key Stage 2

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
- ☑ 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.

Recording, Marking, Assessment and Reporting

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. Summative assessment should be recorded for all pupils – showing whether the pupils have met, exceeded or not achieved the learning objectives.

We assess the children's work in ICT and computing by making informal judgements as we observe the children during lessons. Once the children complete a unit of work, we make a summary judgement of the work for each pupil as to whether they have yet to obtain, obtained or exceeded the expectations of the unit. We record the results in our assessment files and we use these to plan future work, to provide the basis for assessing the progress of the child and to pass information on to the next teacher at the end of the year. ICT and computing work is saved on the school network where each child has their own folder. Other work may be printed and filed within the subject from which the task was set. There is also an evidence folder kept by Mrs L Smith to keep samples of the children's work.

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 schools monitoring cycle. This may be through lesson observations, book trawl 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.

Inclusion

All pupils, regardless of race, gender, culture or disability shall have the opportunities to develop their Computing and ICT capability. The school will promote equal opportunities for computer usage and fairness of distribution of Computing and ICT resources. Children with a computer at home are encouraged to use it for educational benefit and to share their experiences in school.

Provision for Special Educational Needs

Pupils with Special Educational Needs can benefit from using ICT as it enhances access to the curriculum, and this in turn encourages motivation and the development of skills.

ICT resources in the school will reflect the needs of all our students and the ICT Subject Leader will work with the Special Needs Subject Leader to develop a portfolio of ICT resources to support the needs of specific children in the school.

The role of the co-ordinator

- ☒ There is an ICT and computing coordinator who is 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 mathematics.
- ☒ 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 mathematical work, looking at samples of different abilities.
- ☒ To manage the numeracy 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 mathematics 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.

The role of the class teacher

Individual teachers will be responsible for ensuring that pupils in their classes have opportunities for learning ICT and computing skills and using ICT and computing across the curriculum.

Staff training

- The ICT and computing coordinator will assess and address staff training needs as part of the annual development plan process or in response to individual needs and requests throughout the year.
- Individual teachers should attempt to continually develop their own skills and knowledge, identify their own needs and notify the coordinator.
- teachers will be encouraged to use ICT and computing to produce plans, reports, communications and teaching resources.

Health and safety (see also health and safety policy)

The school is aware of the health and safety issues involved in children's use of ICT and computing.

All fixed electrical appliances in school are tested by a LA contractor every five years and all portable electrical equipment in school is tested by an external contractor every twelve months. It is advised that staff should not bring their own electrical equipment in to school but if this is necessary, then the equipment must be pat tested before being used in school. This

also applies to any equipment brought in to school by, for example, people running workshops, activities, etc. and it is the responsibility of the member of staff organising the workshop, etc. to advise those people. All staff should visually check electrical equipment before they use it and take any damaged equipment out of use. Damaged equipment should then be reported to the senior site technician, bursar or head teacher who will arrange for repair or disposal.

- ☒ Children should not put plugs into sockets or switch the sockets on.
- ☒ trailing leads should be made safe behind the equipment
- ☒ liquids must not be taken near the computers
- ☒ magnets must be kept away from all equipment
- ☒ safety guidelines in relation to IWBs will be displayed in the classrooms
- ☒ e-safety guidelines will be set out in the e-safety policy & AUP

Security

- The ICT and computing technician /coordinator 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'. All staff, volunteers and children must sign a copy of the schools AUP.
- Parents will be made aware of the 'acceptable use policy' at school entry and 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.
- The agreed rules for safe and responsible use of ICT and computing and the internet will be displayed in all ICT and computing areas.

Internet

When the Internet is being used, then the **School's Acceptable Use Policy & Online Safety Policy** will always be strictly adhered to.

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 schemes of work for 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.