

Computing and Information & Communication Technology (CICT)

Teaching and Learning Policy



Introduction

This document is a statement of the aims, principles, strategies and procedures for the use of Information and Communications Technology and Computing throughout the school.

Information and Communication Technology (ICT) and Computing contributes to the school curriculum by preparing all young people to participate in a rapidly changing society in which work and social activities are increasingly enhanced by the use of ICT.

Increased capability in the use of ICT promotes initiative and independent learning across the curriculum with pupils being able to make informed judgements about when and where to use ICT to best effect.

Intent

Our computing curriculum aims to equip our pupils with the knowledge and skills they need to navigate a world in which digital technology plays an ever-growing role. We aim to ensure that our children are competent users of digital technology, and that they are able to access online technology in a safe way.

Our curriculum ensures that pupils:

- Know that digital technology is embedded in many aspects of life – not just in the iPad they hold but also – for example - in the washing machine in the kitchen, the TV in the front room and within the systems that control airline flight paths or train timetables!
- Know how to use digital technology as a useful tool – for example to control a device (such as a BeeBot), to carry out research, to communicate, to make movies, to solve mathematical problems, and to create a document.
- Can use the knowledge and skills they learn in Computing, in other curriculum subjects - and our teachers facilitate this in the way they organise the wider curriculum.
- Gain an understanding of computer science, including computational thinking, programming and algorithms.

Implementation

Our computing curriculum is based around iLearn2, a commercial scheme which we have tailored to meet our needs. The content is carefully organised and sequenced, via focused 'units of work', each designed to last half a term. Across each year, the programme covers

age-appropriate elements of all three parts of the computing curriculum: Computer Science, Digital Literacy and Research and Information Technology.

Our Computing curriculum is designed to equip young people with the knowledge, skills and understanding they need to thrive in the digital world of today and the future. The curriculum 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 (Computer Science)
- Can analyse problems in computational terms, and have repeated practical experience of writing computer programs in order to solve such problems (Computer Science)
- Can evaluate and apply information technology, including new or unfamiliar technologies, analytically to solve problems (Information technology)
- Are responsible, competent, confident and creative users of information and communication technology (Digital Literacy)

In teaching computing, we provide the children with as many hands-on, practical experiences as possible. Whilst aspects of computing are sometimes taught directly and discretely, we also provide frequent opportunities that enable the children to use what they have learned in other subject areas.

The teaching of Online Safety at Grangetown is embedded within our computing curriculum, via the materials from Project Evolve, an initiative headed by the South West Grid for Learning (SWGL) in collaboration with the UK Safer Internet Centre. We have adapted these materials to suit our school, and we have arranged the content across EYFS to Year 6, half term by half term. The Project Evolve resources are based upon UK Council for Internet Safety's (UKCIS) framework 'Education for a Connected World', as recommended by the DfE.

We are well equipped to successfully implement our Computing curriculum, because we have invested carefully in IT kit over the years, and because we have knowledgeable teachers all of whom are well-versed in how to use IT - teachers have good subject knowledge and enjoy teaching computing. In terms of equipment, we have:

- A well-equipped Computing Suite with 28 PCs
- 1:1 iPads from Years 1-6, with a shared set of Ipads for EYFS
- 3-4 desktop computers in every classroom, for pupils
- 4 laptops in every KS2 classroom (these can be combined for larger groups)
- A 70" CleverTouch screen in every classroom, linked to a teacher PC
- A visualiser in every classroom
- A suite of Software covering the key elements of our taught Computing curriculum
- Sets of BeeBots and a set of Codeapillars for EYFS and KS1.

Impact

Our curriculum is designed to ensure that, as they move through school, the children develop their knowledge of computing, so that by the time they leave they are digitally literate i.e. competent users of IT, knowledgeable about the key taught aspects of computer science. Equipped in this way, they will be ready to successfully move on to the next stage of their education, they will have gained a bank of transferable learning skills, and they will be able to understand how digital technology impacts on their day to day lives. Importantly, they will also have the ability to keep themselves safe and secure whilst

using the internet and social media – for communication, research and – for example – for banking or online shopping.

We measure the impact of Computing through:

- Ongoing assessment of the taught curriculum – via observation, discussion, questioning and through written or digital work. An assessment system is in place for Computing, based on teacher evaluation against the key learning objectives - judgements are made half-termly (based on ongoing formative assessment).
- Classroom discussions with the children about their learning.
- Regular monitoring by the Computing subject leader – lesson drop-ins, scrutiny of pupil work and teacher planning, termly discussions with groups of children about their learning discussions in staff meetings and key stage teams.

Inclusion

It is an important principle that all pupils have full access to the curriculum. The ICT facilities are available for use by all pupils and staff. ICT will be used appropriately to enhance each pupil's access to the curriculum. All pupils make regular use of the school's ICT facilities. ICT will be used in a range of activities and in a variety of contexts. By its very nature Information Technology is accessible to children of a wide range of educational experience and attainment. In co-operation with the SENDCo we will provide, wherever and whenever possible, appropriate software and hardware to enable such access.

Organisation

- All classrooms are equipped with a PC, which is connected to a CTouch Interactive white board (IWB). All classrooms have computers that the pupils can access and each classroom has both wired and wireless internet access. Each member of staff has access to their own iPad, which is used for supporting children and for administrative tasks. Most staff also have a laptop provided by school for planning and administrative tasks in school and at home. There are visualisers in all classrooms, connected to the IWB. There are 28 computers in the ICT suite and a CTouch IWB, which is used for whole class teaching.
- Each teacher has their own individual user name and password, with access to their own secure document space on our server network. Within the teacher accounts, all teachers have access to the children's accounts and a central staff server.
- All classes have an allocated username, which is linked to their yeargroup number. Then, each yeargroup, from years 1-6 has individual (Years 3-6) or class (Years 1-2) folders and a shared work area set up for the children to save their work within. This allows pupils' work to be saved for assessment within their own individual folder – the teacher has full access to all pupil folders.
- We also have access to iPads, for both staff and children. In Foundation Stage there is a set of iPads and there are iPad minis and iPads in Year One. From Year 2 to Year 6, each of the children have access to their own iPad for use in class.
- There are also other resources and toys available for classes to use to support their teaching and learning in Computing: remote control cats, beebots, codeapillars.
- We have numerous subscriptions to websites such as Numbots, TT Rockstars and children use these when directed by their teacher. We have a wide range of software available on the PC's, including the Sherston Software Suite and 2simple Infant Toolkit.

Roles and Responsibilities

Computing Co-ordinator

- Support purchasing of hardware and software
- Purchase of ICT consumables
- Monitoring throughout the school
- Share information following courses or update staff with new developments related to Computing
- Maintenance of policy
- Monitor new developments in computing and integrate these into action plan, scheme of work and policy, where appropriate
- Supports colleagues in their teaching, by keeping informed about current developments in computing and by providing a strategic lead and direction for this subject
- Feedback in which the strengths and weaknesses in computing are evaluated and indicates areas for further improvement.

Class Teachers

- Medium Term and weekly plans
- Planning use of computing within subject areas.
- Assessment of pupils
- Adherence to the policies.

Health and Safety

- An adult should always supervise children when they are accessing information via the Internet. Our system does filter content, and this is very effective, but staff are ultimately responsible for information accessed by pupils.
 - Children should not be given the responsibility of plugging in and switching machines on without a member of staff present.
 - Food and drink should not be consumed near ICT equipment.
 - It is the responsibility of staff to ensure that classroom ICT equipment is stored securely, cleaned regularly and that their class or themselves leave the ICT suite clean and tidy after use.
 - Staff should ensure that the children are seated at the computers comfortably and be aware of the dangers of continuous use.
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