

Introduction

This policy outlines the teaching, organisation and management of Computing taught and learnt at St Catherine's Primary School. This policy has been drawn up as a result of staff discussion and has the full agreement of the Governing Body. The implementation of this policy is the responsibility of all the teaching staff.

Vision

It is our school's intention to enable children to become independent and confident users of digital devices. To have a sound understanding of how they work, to use computational thinking (able to take complex problems and break them down into manageable steps) and to be able to use devices to store, organise and create their own work. We aim to provide learners with a structured programme that introduces relevant skills, knowledge and concepts related to the three main areas that make up the Computing curriculum; Computer Science, Digital Literacy and Information Technology. For this to be achieved, the school aims to be well equipped in all areas of Computing, allowing staff to teach Computing and the wider curriculum above and beyond the National Curriculum requirements. To have staff that are well trained and confident in the use and teaching of Computing.

Computing

At St Catherine's we have used a range of schemes to develop our own Computing Scheme of work. This is broken down into three areas; Computer Science, Digital Literacy and Information Technology.

Computer Science teaches pupils about how digital systems work, how they are designed and programmed, and the fundamental principles of information and computation. Pupils are inspired to use these to analyse and evaluate digital errors and use their knowledge to problems solve.

Digital Literacy teaches pupils to find, organise, evaluate and create information using digital technology. Digital Literacy is the ability to use computer systems confidently and effectively, including:

- Basic keyboard and mouse skills.
- Simple use of 'office applications' such as word processing, presentations and spreadsheets.
- Use of the Internet, including browsing, searching and creating content for the Web, communication and collaboration via e-mail, social networks, collaborative workspace and discussion forums.
- Storing, organizing and creating digital content.

Information Technology deals with the creative and productive use and application of computer systems, especially in organisations, including considerations of e-safety, privacy, ethics, and intellectual property.

Our scheme provides each year group with a range of activities that will ensure pupils complete the curriculum but also revisit knowledge and skills and also experience a wide

range of products and activities.

Children will use the computers, tablets, and touchscreen display units throughout their years at St Catherine's. The Foundation Stage, the children work on a variety of design and making activities to meet the requirements of the Early Learning Goals.

Children will receive dedicated Computer lessons and will be expected to use the knowledge and skills learnt to support their learning. Cross-curricular lessons are taught to and in hand, heighten the computing skills taught. Pupils may use digital devices in core subjects and in lessons such as design and technology, art and music.

Inclusion

Children with particular needs will be challenged and motivated by differentiated work given by the teacher appropriate to their needs. Teachers will also use questions that allow all children to maintain their involvement in the lesson and demonstrate their knowledge and abilities. If necessary, arrangements will be made for a child to work on individualised tasks or devices appropriate to their specific needs. Liaison with the Special Needs Co-ordinator will sometimes be necessary. Children will be challenged and motivated by differentiated work given by the teacher appropriate to their needs.

Assessment

Assessment will take place at three connected levels: short-term, medium-term and long-term. These assessments can be used to inform teaching in a continuous cycle of planning, teaching and assessment. Short term assessments will be an informal part of every lesson to check pupils' understanding and give information, which will help teachers to adjust day-to-day lesson plans. Assessments will take place after each unit of work. Long-term assessments will take place towards the end of the school year to assess and review pupils' overall progress and attainment. Teachers will also draw upon their class record of attainment against key objectives and supplementary notes and knowledge about their class to produce a summative record.

Resources

At St Catherine's we strive to ensure pupils have access to reliable and high-quality computing equipment. This currently includes: desktop computers, laptops, Android tablets, iPads and interactive whiteboards. Key stages also have specific resources for their year groups e.g. Beebots and Micro:bits. Further to this, St Catherine's have relevant applications on the devices to support the curriculum e.g. Scratch.

Links Between Computing and Other Subjects

At St Catherine's we try and make effective use of digital technology to support teaching and learning across the curriculum. Where there is a clear focus on learning rather than technology, systems such as interactive whiteboards, virtual learning environments, blogs, wikis, podcasts, video and mobile devices can have a transformative impact on both learning and teaching. Pupils' use of such technology both draws on and enhances their digital literacy.

Leadership of Computing

- Ensure teachers are familiar with the policy
- Advise and monitor lesson plans / termly planning
- Co-ordinate assessment procedures and record keeping so as to facilitate progression and cohesion
- Be aware of national and local developments through reading appropriate materials and

attending courses.

- Prepare, organise and lead CPD, with the support of the Headteacher
- Carry out scrutiny of children's work with work samples from all year groups for Computing.
- Liaise with other schools in the development group to encourage continuity of approach
- Observe colleagues from time to time with a view to identifying the support they need
- Discuss regularly with the Headteacher and the Curriculum Governor the progress of implementing the policy in the school.
- Contribute to the school Improvement Plan.
- Submit an annual report to Governors, which informs the Governors of progress towards targets identified in the SIP.

Online Safety

Please refer to the school Online Safety Policy.

Equal Opportunities

We are committed to providing a teaching environment conducive to learning. Each child is valued, respected and challenged regardless of ability, race, gender, religion, social background, culture or disability.

Health and Safety

Comfort

Users should be comfortably positioned, with easy access to all equipment. While sitting, users must be able to adjust their position in relation to the equipment as appropriate. Users should change posture frequently and take frequent 10-minute breaks away from devices to stretch their limbs.

Seating

At St Catherine's we use stools around our Computing suite. Children are encouraged to sit upright and not to rock back and forth on them.

Monitors

Monitors tilt and swivel to suit the requirements of individual users. The top of the screen should be roughly at eye level. Screens should be positioned to reduce reflection and glare from lights and windows, using blinds where necessary, and are adjustable for brightness and contrast as the lighting changes throughout the day. They are also cleaned regularly. Speakers are built into the monitors to cut back on the amount of clutter on the desktop and minimize visible wires.

Keyboards

Users have the option of using the keyboard flat or tilted. It is important to develop a good keyboard technique to reduce the risk of upper limb disorders (including pains in the neck, arms, elbows, wrists, hands and fingers). This painful condition, which has the potential to cause irreversible problems, is often known as repetitive strain injury or RSI.

For children with years of typing ahead of them, using the keyboard with index fingers only is highly risky. RSI is easier to prevent than cure.

Noise

Almost all Computing equipment emits background noise if the power is switched on, even when an item is not in use, and many software packages feature sound as part of their operation. Other Computing users in the classroom, especially those working in groups, can be noisy or distracting. Use of headphones is encouraged when using programs with lots of sound.

Heat and light

The ideal temperature of a computer suite is between 18 and 24 degrees Celsius, with humidity between 40 percent and 60 per cent. Almost all computer equipment gives off heat, which can build up during the day and become quite oppressive for users, as well as detrimental to the equipment.

Personal safety

When using equipment such as photocopiers, remember that fast-moving parts can trap clothing, jewellery and hair. Photocopiers should be located in well-ventilated areas, and pupils should not be allowed to handle toners and inks, or to try to repair faults.

iPads

Pupils are reminded to stay seated when using an iPad; this is to reduce the risk of the pupils being in a dangerous situation for example, tripping. The iPads are also kept in a safe container and so the children are able to avoid using an iPad whilst on charge. Children will therefore have less chance of being in contact with the charging cable for prolonged periods of time, reducing the risk of injury.