Holy Family Catholic Primary School

Computing Policy

Approved by:	Bernadette Nesbit	Date: February 2023
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Next review due by:	To be monitored and updated as required	

Introduction

The use of computers and computer systems is an integral part of the National Curriculum and knowing how they work is a key life skill. In an increasingly digital world there now exists a wealth of software, tools and technologies that can be used to communicate, collaborate, express ideas and create digital content. At Holy Family Catholic Primary School we recognise that pupils are entitled to a broad and balanced computing education with a structured, progressive, approach to the learning how computer systems work, the use of IT and the skills necessary to become digitally literate and participate fully in the modern world. The purpose of this policy is to state how the school intends to make this provision.

Intent

Our Computing curriculum aims to enhance pupil's enjoyment, resilience, understanding and attainment in Computing. Our units are sequenced and progressive, giving particular attention to fundamental concepts and are built on prior knowledge. Children work independently and collaboratively to try to achieve Mastery in Computing.

Implementation

Computing is supported by Icompute which is a rich, broad and balanced scheme that covers the National Curriculum and all three strands: Computer Science, Information Technology and Digital Literacy (including E-safety). Icompute is taught once a week for 30 minutes which provides children time to develop their knowledge, skills and vocabulary in Computing. The Computing curriculum is supported through long term plans, knowledge organisers, unit overviews, short term planning and assessment tools to ensure children show progress. E-safety is of vital importance at Holy Family; each year group is taught a standalone unit of E-safety as well as E-safety reminders during other units throughout the year. Cyber-bullying is discussed during Safer Internet Day and Anti-Bullying Week.

Impact

The curriculum offers equity for all groups and it is intended that all children access it. By following and monitoring the curriculum and its delivery, leaders are supported by Icompute in ensuring that all teachers teach the full range of lessons for each year group and that they are taught in accordance with the planning to ensure rigor, challenge and inclusion.

The National Curriculum

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.

Resources

The school acknowledges the need to continually maintain, update and develop its resources and to make progress towards consistent, compatible computer systems by investing in resources that will effectively deliver the objectives of the National Curriculum and support the use of IT, computer science and digital literacy across the school. Teachers are required to inform the computing subject leader of any faults as soon as they are noticed. The Computing curriculum is taught using Ipads and laptops.

Planning

The school will be using iCompute for Primary schools - the whole-school scheme of work for Year 1 to Year 6 pupils. iCompute fully meets the objectives of the National Curriculum for Computing and allows for clear progression in computing. Pupil progress towards these objectives will be recorded by teachers as part of the school recording system. Staff will follow iCompute's planning guidance and pupil progress trackers.

Assessment and record keeping

Teachers regularly assess progress through observations and evidence. Key objectives to be assessed are taken from the National Curriculum to assess computing each term. The school also uses iCompute's assessment criteria and pupil progress trackers as a guide. Assessing computing is an integral part of teaching & learning and key to good practice.

We assess the children's work in computing by making informal judgments as we observe the children during lessons. Once the children complete a unit of work, we make a summary judgment of the work for each pupil as to whether they are Working Towards, at the Expected standard or achieved Greater Depth standard.

What does GDS look like in Computing?

Characteristics of Greater Depth in Computing:

- Children who approach problem solving situations with persistence, resilience and confidence
- Children who have a firm grasp of Microsoft products and can use or combine these for a variety of purposes
- Children who show a comprehensive understanding of coding and can work with various forms of input and output confidently
- Children who are able to confidently evaluate the validity of a website and can state the source of the information found on the internet
- Children who know how to navigate the internet safely and effectively and know what a problem looks like and how to report it immediately
- Children who fully understand, explore and apply skills and ideas in different ways, in different subjects and in different subjects
- Children who can apply their knowledge from other subjects to help them solve technological problems
- Children who are able to constantly review, analyse and evaluate their work and will make improvements without being asked

Opportunity for oracy in computing lessons

Vocabulary and Technical Language: Encouraging students to use correct computing terminology, such as algorithm, debug, sequence, and variable, through discussion-based activities where they explain computing concepts in their own words.

Verbal Problem-Solving: Engaging students in verbal problem-solving by encouraging them to talk through algorithms, participate in pair programming where one student explains while the other follows, and predict program outcomes verbally before running the code.

Collaborative Learning: Fostering collaboration through group discussions relevant to computing units of learning and online safety. Providing challenges that require effective communication, and peer feedback sessions alongside structured debates on technology topics.

Presentations and Explanations: Encouraging students to present their projects, explain debugging steps, create tutorials or presentations on units of learning, and justify their design decisions when developing and using games.

Reflective Speaking and Listening: Encouraging students to reflect on their learning by articulating what went well and what they found challenging, engaging in "helpful feedback" to deepen understanding, and actively listening to peers' solutions to build on their ideas.

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, pupil discussion and evaluating pupil work.

We allocate time for the vital task of reviewing samples of children's work and for visiting classes to observe teaching in the subject.

Pupils with special educational needs

We believe that all children have the right to access IT and computing. In order to ensure that children with special educational needs achieve to the best of their ability, it may be necessary to adapt the delivery of the computing curriculum for some pupils.

We teach IT and computing to all children, whatever their ability. Computing forms part of the national curriculum to provide a broad and balanced education for all children. Through the teaching of computing we provide opportunities that enable all pupils to make progress. We do this by setting suitable challenges and responding to each child's individual needs. Where appropriate IT can be used to support SEN children on a one to one basis where children receive additional support.

Equal opportunities

We will ensure that all children are provided with the same learning opportunities regardless of social class, gender, culture, race, disability or learning difficulties. As a result, we hope to enable all children to develop positive attitudes towards others. All pupils have equal access to computing and all staff members follow the equal opportunities policy. Resources for SEN children and gifted & talented will be made available to support and challenge appropriately.

The role of the Subject Leader

There is a computing subject leader who is responsible for the implementation of computing policy across the school. Their role is to:

- offer help and support to all members of staff (including teaching assistants) in their teaching, planning and assessment of computing.
- provide colleagues opportunities to observe good practice in the teaching of computing.
- maintain resources and advise staff on the use of digital tools, technologies and resources.
- monitor classroom teaching or planning following the schools monitoring programme.
- monitor the children's progression in computing, looking at examples of work of different abilities.
- manage the computing budget.
- keep up-to-date with new technological developments and communicate information and developments with colleagues
- lead staff training on new initiatives.
- attend appropriate in-service training
- have enthusiasm for computing and encourage staff to share this enthusiasm.
- keep parents and governors informed on the implementation of computing in the school.
- liaise with all members of staff on how to reach and improve on agreed targets
- 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 computing and using their knowledge, skills and understanding of computing across the curriculum.

They will plan and deliver the requirements of the National Curriculum for Computing to the best of their ability. We set high expectations for our pupils and provide opportunities for all to achieve, including girls and boys, pupils with educational special needs, pupils with disabilities pupils from all social and cultural backgrounds, and those from diverse linguistic backgrounds.

The class teacher's role is a vital role in the development of computing throughout the school and will ensure continued progression in learning and understanding, and create effective learning environments.

The class teacher will also:

- secure pupil motivation and engagement
- provide equality of opportunity using a range of teaching approaches and techniques
- use appropriate assessment techniques and approaches
- set suitable targets for learning as outlined in the inclusion policy.
- maintain up to date assessment records (see policy document).

Staff training

The computing subject leader 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 subject leader.

Teachers will be encouraged to use IT and computing to produce plans, reports, communications and teaching resources.

Health and safety

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

All fixed electrical appliances in school are tested by a Local Authority 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, equipment must be PAT tested before being used in school. This also applies to any equipment brought in to school by, for example, visitors 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 a computer technician, bursar or head teacher who will arrange for repair or disposal.

In addition:

- 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 & Acceptable Use Policy