

Holy Cross RC Primary School



Computing Policy

Signed _____ [Headteacher] Date September 2024

Signed _____ [Chair of Governors] Date September 2024

Next Review Date September 2027

Contents

1. Aims
2. National Curriculum
3. Teaching and Learning
4. Assessment
5. Resources
6. Monitoring

At Holy Cross Catholic Primary, we recognise that pupils are living in a rapidly changing world, in which ICT is playing an ever-increasing role. We aim, therefore, to equip children

with the skills to adapt to new technology and to give them confidence to use ICT and computing skills to further their learning and assist them in everyday life.

Building on this knowledge and understanding, pupils are equipped to use information technology to create programs, systems and a range of content. Computing also ensures that pupils become digitally literate – able to use, and express themselves and develop their ideas through, information and communication technology – at a level suitable for the future workplace and as active participants in a digital world. Our curriculum has been designed to incorporate uses of technology such as Google Education Suite, Google Docs, Slides, Sheets, a range of iPad apps and educational software.

1) Aims

The school's aims are to:

- Provide a broad, balanced, challenging and enjoyable curriculum for all pupils.
- Develop pupil's computational thinking skills that will benefit them throughout their lives.
- Meet the requirements of the national curriculum programmes of study for Computing at Key Stage 1 and 2
- To stimulate interest in new technologies.
- To equip pupils with the confidence and skills to use digital tools and technologies throughout their lives.
- To enhance and enrich learning in other areas of the curriculum by cross curricular use of ICT
- To develop the understanding of how to use computers and digital tools safely, respectfully and how to stay safe online.

2) National Curriculum:

In EYFS, pupils will be taught to:

Personal, Social and Emotional Development

- Show resilience and perseverance in the face of a challenge.
- Know and talk about the different factors that support their overall health and wellbeing: -sensible amounts of 'screen time'.

Physical Development

- Develop their small motor skills so that they can use a range of tools competently, safely and confidently.

Expressive Arts and Design

- Explore, use and refine a variety of artistic effects to express their ideas and feelings.

Early Learning Goals:

Personal, Social and Emotional Development Managing Self

- Be confident to try new activities and show independence, resilience and perseverance in the face of challenge.
- Explain the reasons for rules, know right from wrong and try to behave accordingly.

Expressive Arts and Design Creating with Materials

- Safely use and explore a variety of materials, tools and techniques, experimenting with colour, design, texture, form and function.

In Key Stage 1, pupils will be taught to:

- Use technology safely and respectfully, keeping personal information private
- Identify where to go for help and support when they have concerns about content or contact on the internet or other online technologies

Pupils in Key Stage 2 will be taught to:

- Use technology safely, respectfully and responsibly
- Recognise acceptable and unacceptable behaviour
- Identify a range of ways to report concerns about content and contact
- By the end of primary school, pupils will know:
 - That people sometimes behave differently online, including by pretending to be someone they are not.
 - That the same principles apply to online relationships as to face-to-face relationships, including the importance of respect for others online including when we are anonymous
 - The rules and principles for keeping safe online, how to recognise risks, harmful content and contact, and how to report them
 - How to critically consider their online friendships and sources of information including awareness of the risks associated with people they have never met
 - How information and data is shared and used online
 - How to respond safely and appropriately to adults they may encounter (in all contexts, including online) whom they do not know

In order to meet these expectations, we ensure that the progression is through our scheme of learning and progression maps. We ensure that children have access to a range of resources including chromebooks, laptops, iPads, BeeBots, an interactive whiteboard, and a range of educational software across the curriculum. Where appropriate, computing is used to develop cross-curricular links. Children's experiences and produced work is monitored and evaluated and that staff skills and knowledge is kept up to date. Where possible, we aim to ensure that resources and equipment are up-to-date.

3) Teaching and Learning at Holy Cross Catholic Primary School:

Our **intent** when teaching Computing is to:

Offer a structured sequence of lessons in units, helping teachers to ensure that they have covered the skills required to meet the aims of the national curriculum. The content allows for a broad, deep understanding of computing and how it links to children's lives in school and beyond. This allows children to apply the fundamental principles and concepts of computer

science. They develop analytical problem-solving skills and learn to evaluate and apply information technology safely. It also enables them to become responsible, respectful, competent, confident, and creative users of information technology. In Key Stage 1 and 2, all class teachers follow the planning primarily using Teach Computing Scheme. This planning ensures good progression and coverage across the primary age range, with prior learning being revisited and then built on across the key stage. Each scheme of work progresses to a final piece of work for the unit. Each week class teachers take photos of the lessons and store these on the G-drive, they also create a page in the Curriculum Floorbook. Where appropriate, learning will be shared on digital platforms such as Class Dojo and Tapestry. Teacher will then upload the videos to the T-Drive. This evidence is then used to support the teacher-based assessment at the end of the topic.

We **implement** this by: providing lessons that contain an opportunity to revisit concepts and complete analysis and problem solving. Through our delivery of Computing, we intend to inspire a love of the digital world, see its place in their future. Cross-curricular links will be made, where possible, to support other areas of learning for example many Data Handling objectives are covered in Maths and Science topics. Our plans and resources are used in combination to ensure children are exposed to a rich variety of activity. In KS1, the focus is on developing the use of algorithms, programming and how technology can be used safely and purposefully. In KS2, the focus is on algorithms, programming and coding but in a more complex way and for a variety of purposes. Children also develop their knowledge of computer networks, internet services and the safe and purposeful use of the internet and technology.

The **impact** will be: Learning in computing will be enjoyed across the school. Teachers will have high expectations and quality evidence will be presented in a variety of forms. Children will use digital and technological vocabulary accurately, alongside a progression in their technical skills. They will be confident using a range of hardware and software and will produce high-quality purposeful products. Children will see the digital world as part of their world, extending beyond school, and understand that they have choices to make. They will be confident and respectful digital citizens going on to lead happy and healthy digital lives.

4) **Assessment**

Formative Assessment:

Every lesson includes formative assessment opportunities for teachers to use. These opportunities are listed in the lesson plan and are included to ensure that misconceptions are recognised and addressed if they occur. They vary from teacher observation or questioning, to marked activities. These assessments are vital to ensure that teachers are adapting their teaching to suit the needs of the pupils that they we are working with.

The learning objectives and success criteria are introduced in the slides at the beginning of every lesson. At the end of every lesson, pupils are invited to assess how well they feel they

have met the learning objectives using thumbs up, thumbs down, or thumbs sideways. This gives pupils a reminder of the content that has been covered, as well as a chance to reflect. It is also a chance for teachers to see how confident the class is feeling so that they can make changes to subsequent lessons accordingly.

Teachers use their observations to assess who has met or not met the intended outcomes of a lesson. These children then receive in class support from the class teacher or further support from their peers. This information can also be used to inform groupings of the children the following lesson, enabling teachers to have a clear focus on supporting the needs of individual children. The curriculum is designed to be sequential building on areas worked on in previous years, allowing children to build on their previous skills and allowing peer to peer support across many areas of the curriculum.

Summative assessment:

Every unit includes an optional summative assessment framework in the form of either a multiple-choice quiz (MCQ) or a Rubric. All units are designed to cover both skills and concepts from across the computing national curriculum. Units that focus more on conceptual development include a MCQ. Units that focus more on skills development end with a project and include a Rubric. However, within the 'Programming' units, the assessment framework (MCQ or Rubric) has been selected on a best fit basis.

Multiple choice quiz (MCQ)

Each of the MCQ questions has been carefully chosen to represent the learning that should have been achieved within the unit. In writing the MCQs, we have followed the diagnostic assessment approach to ensure that the assessment of the unit is useful to determine both how well pupils have understood the content, and what pupils have misunderstood, if they have not achieved as expected.

Each MCQ includes an answer sheet that highlights the misconceptions that pupils may have if they have chosen a wrong answer. This ensures teachers know which areas to return to in later units.

Rubric

The Rubric is a tool to help teachers assess project-based work. Each rubric covers the application of skills that have been taught directly across the unit, and highlights to teachers whether the pupil is approaching (emerging), achieving (expected), or exceeding the expectations for Their age group. It allows teachers to assess projects that pupils have created, focussing on the appropriate application of computing skills and concepts.

Assessment rubric: Year 3 – Stop-frame animation

Learner:		Teacher:		Date:	
	Emerging [1]	Expected [2]	Exceeding [3]	Score	
Task	Outline the broad requirements of the task	Explain the key requirements of the task	Outline an approach to planning the task		
Design decisions	Storyboard contains pictures and notes related to the story	Storyboard has a clear beginning, middle, and end	Storyboard indicates what is needed to create the animation		
Implementation	- Several frames used to create movement - The animation relates to a relevant story - Make some changes - Recognise that media can be added	- Movement is smooth - The animation follows the storyboard - Make some improvements - Add some additional media	- Movement is consistent throughout - The animation includes flying objects - Identify improvements and make those changes - Use additional media to enhance the animation		
Evaluation	Identify which elements of the task have been achieved	Evaluate how successful they were in meeting the task requirements	Identify how and why their project could be improved		
Teacher feedback					
Learner response to feedback					

Pedagogically, we want to ensure that we are assessing pupils' understanding of computing concepts and skills, as opposed to their reading and writing skills. This has been carefully considered both in how the MCQs have been written (considerations such as the language used, the cultural experiences referenced, etc) and in the skills expected to be demonstrated in the rubric.

5) 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.

Computing network infrastructure and equipment has been sited so that:

- Every classroom from Reception to Y6 has a computer connected to the school network and an interactive whiteboard with sound
- There 30 Chromebooks and 30 iPads both stored in a charge trolley for ease of movement
- Internet access is available in all classrooms.
- Each class from Y1 – Y6 has an allocated slot per week for teaching computing and EYFS have access to the iPads when needed.
- Laptops and iPads are available for use throughout the school day as part of computing lessons and for cross-curricular use.
- Pupils may use IT and computing independently, in pairs, alongside a TA or in a group with a teacher.

Monitoring

In monitoring the quality of computing teaching and learning the coordinator will:

- Scrutinise plans to ensure full coverage of the computing curriculum requirements
- Analyse children's work
- Hold discussions with teachers and children to gain an understanding on a range of perspectives.

