HOLY TRINITY

C. E. PRIMARY ACADEMY
(HANDSWORTH)

Computing Policy

Subject Champion: Mohammed Alam

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Holy Trinity CE Primary Academy Vision Statement

"For I know the plans I have for you," declares the Lord, "plans to prosper you and not to harm you, plans to give you hope and a future." Jeremiah 29:11

At Holy Trinity CE Primary Academy our distinctive Christian values are at the heart of all we do. Through our curriculum and care our children develop independent curiosity, acquire a life-long appetite for learning and become well-rounded individuals, seeking 'hope and a future' for themselves and others.

1. Intent

1.1 Computing at Holy Trinity

At Holy Trinity we intend that children should master Computing to such an extent that they can go on to have careers within Computing and make use of Computing effectively in their everyday lives, without being completely reliant on technology. Pupils will be taught to use technology responsibly and carefully, being mindful of how their behaviour, words and actions can affect others. Our children will be taught Computing in a way that ensures progression of skills and follows a sequence to build on previous learning. Pupils at Holy Trinity will gain experience and skills of a wide range of technology in a way that will enhance their learning opportunities, enabling them to use technology across a range of subjects.

Developing wider curriculum areas has been an important part of the school's improvement journey therefore, a new scheme has been purchased (Kapow Primary Computing) and a dedicated hourly slot of computing across all years has been set.

1.2 Curriculum aims

- can understand and apply the fundamental principles and concepts of computer science, including abstraction, logic, algorithms and data representation
- 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

2. Implementation

At Holy Trinity we follow a broad and balanced Computing curriculum that builds on previous learning and provides both support and challenge for learners. We follow a Computing scheme that ensures a clear progression of skills and covers all aspects of the Computing curriculum. The scheme of work is organised into units. Within each unit, lessons must be taught in order as they build upon one another. All classes will have a scheduled hour-long Computing lesson each week and will be also taught Computing alongside other curriculum subjects. Children's work will be stored on the school's shared drive for reference and assessment. We want to ensure that Computing is embedded in our whole school curriculum and that opportunities for enhancing learning by using technology are always taken.

The Computing scheme of work ensures a broad and balanced coverage of the National Curriculum requirements and covers the three main aims, Computer Science, Information Technology and Digital literacy. These aims are constantly revisited throughout KS1 and KS2, covered in greater complexity and prior knowledge is utilised so pupils can build on previous foundations, rather than starting again. Online Safety is deeply embedded across all key stages ensuring pupils address key issues varying from online bullying, identifying fake news and privacy. At the end of each year, pupils are given an opportunity to demonstrate the skills they have learnt by completing a 'skills showcase' unit. Lessons are progressive and follow a clear structure as well as incorporating a range of teaching strategies which encourage problem solving, creative and reflective thinking and independent learning.

Lessons are engaging and differentiated so they can be accessed by all pupils as well as providing opportunities to stretch pupils' learning. The scheme has many cross-curricular links giving pupils the opportunity to apply a variety of transferable skills. Staff are required to have strong subject knowledge and are supported with teacher videos for each lesson which break down the required activities into understandable steps. Each lesson is equipped with a detailed lesson plan and links to software that is required. Lessons have a clear and familiar structure across all year groups in which includes a recap of previous learning, introduction to new learning and vocabulary, independent task and plenary. In the introduction of each unit, pupils have access to knowledge organisers, supporting them with new vocabulary and are also given knowledge catchers to complete as they progress through each unit. At the end of unit pupils complete an end of unit quiz which to assess what they have learnt.

Computing lessons take place weekly across all year groups in the computer suite as well using a variety of technological devices and software such as Google Chromebooks, Microsoft Office and Ipads. Pupils are prescribed individual logins to support them with accessing a variety of google programs which enables them to save their work digitally. Displays within the computing suite range from a historical timeline in computing, an online safety display enforcing the aspects of staying safe online and a board displaying key vocabulary in computing.

Pupils in early years also use the same computing scheme which consists of five-units and is centred around play-based, unplugged activities that focus on building children's listening skills, problem-solving skills, curiosity and creativity. Continuous provision in early years involves pupils exploring objects that work in different ways and can be used for different purposes. Technological resources are integrated within the natural classroom

environment to encourage realistic roleplaying of what children observe at home and in school.

Computing in EYFS

At Holy Trinity believe that computing and technology are still vitally important subjects to deliver to our Reception children. Pupils follow a scheme of work that supports the ELG objectives of developing a child's understanding of the world through activities such as programming bee bots, cause and effect games and learning to take photos of their interests. Computing in early years is seen as a cross-curricular skill to be integrated and developed across others of learning.

Computing in KS1

During Key Stage 1, the pupils learn to understand what an algorithm is, how they are implemented on digital devices, and that programs execute by following precise and unambiguous instructions. Pupils create and debug simple programs through use of Beebots. They develop their logical reasoning skills to predict the behaviour of simple programs. Pupils improve their knowledge of how to use technology purposefully to create, organise, store, manipulate and retrieve digital technology through showcasing their digital imagery by completing an end of unit 'showcase unit'. Throughout, the programme of study they learn how 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 through regular online safety sessions.

Computing in KS2

During Key Stage 2, pupils expand and deepen the knowledge and skills learned in KS1. Pupils move from creating and debugging algorithms to designing and writing programs that enable them to create digital stories. They become more accomplished at detecting, correcting and explaining errors in algorithms and programs. Pupils are given opportunities to communicate information by making digital posters, audio books and games. They achieve this by selecting, using and combining a variety of software and internet services on a range of digital devices to accomplish given goals including collecting, analysing, evaluating and presenting data and information. They use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content through the creation of spreadsheets, graphs and databases. Throughout, the programme of study they learn how to use technology to stay safe online and how to manage feelings and emotions when someone or something has upset us.

3. Impact

The impact of the Computing Curriculum enables pupils to meet the end of key stage expectations outlined in the National curriculum and enjoy and value Computing and know why they are doing things, not just how. Children will understand and appreciate the value of Computing in the context of their personal wellbeing and the technological, creative and cultural industries and their many career opportunities. Pupils will earn valuable and effective skills whereby they will be critical thinkers, be aware of online safety issues and protocols and use technology collaboratively as a team.

Pupils show a clear progression of technical skill across all areas of the National Curriculum- computer science, informational technology, and digital literacy. The Computing curriculum will contribute to children's personal development in creativity, independence, judgement and self-reflection. This would be seen in them being able to talk confidently about their work, and sharing their work with others. Progress will be shown through outcomes and through the important record of the process leading to them.

The impact of the Computing scheme is constantly monitored both through formative and summative opportunities. Each unit of work comes equipped with full lesson planning resources that are differentiated to meet he needs of all pupils. Each lesson provides guidance to support teachers in assessing pupils against the learning objectives and each unit has a unit quiz and a knowledge catcher. Each unit is equipped with a variety of AFL opportunities and enables teachers to have a flexible approach and adapt their teaching to meet the needs of all learners. Plenaries at the end of each lesson and teacher assessment of each lesson allow teachers to adapt their teaching to support any gaps in learning.

Progress in Computing is demonstrated through regularly reviewing and scrutinising children's work, in accordance with our Computing assessment policy to ensure that progression of skills is taking place. Namely through:

- Looking at pupils' work, especially over time as they gain skills and knowledge
- Observing how they perform in lessons
- Talking to them about what they know

Summative assessment is taken in the form assessment trackers to show progression of each child against end of unit objectives and identify gaps to provide additional support, if need be.

3.2 Monitoring

The subject is led by the Subject Champion and supported by the Senior Leadership Team. Each year, time is set aside to review standards and monitor curriculum provision and ensure training and resources are up to date.

Monitoring takes place regularly by the Subject Champion and the Senior Leadership Team through sampling children's work, book scrutinies, learning walks, lesson observations and pupil voice.

3:3 Equal opportunities

This policy firmly supports the equal opportunities philosophy of the school. Every child, regardless of gender, ethnicity or ability is given equal access to all aspects of the curriculum and participates fully in all lessons.

At Holy Trinity we recognise protected characteristics from *The Equality Act 2010*.

The following characteristics are protected characteristics:

- age
- disability
- gender reassignment
- marriage and civil partnership
- pregnancy and maternity
- race
- religion or belief
- sex
- sexual orientation.