Through God’s love and encouragement we aspire for all to achieve their potential



**COMPUTING POLICY**

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| THIS POLICY WAS ACCEPTED BY THE FULL GOVERNING BODY ON |  |
| SIGNED CHAIR OF GOVERNORS |  |

**COMPASSION, ASPIRATION, FRIENDSHIP, RESPECT AND RESILIENCE**

*As a safe haven of hope and aspiration, our richly unique and diverse children are nurtured with kindness and compassion, learning to value themselves and others...*

**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 Archbishop Courtenay 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 and equip them for 21st century jobs that done exist yet. The purpose of this policy is to state how the school intends to make this provision.

**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 respond to new developments in technology

• 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 using IT and computing.

• To develop the understanding of how to use computers and digital tools safely and responsibly

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

• Are responsible, competent, confident and creative users of information and communication technology.

**Rational**

The school believes that IT, computer science and digital literacy:

* Are essential life skills necessary to fully participate in the modern digital world
* Allows children to become creators of digital content rather then simple consumers of it
* Provides access to a rich and varied source of information and content
* Communicates and presents information in new ways, which helps pupils understand, access and use it more readily
* Can motivate and enthuse pupils
* Offers opportunities for communication and collaboration through group working
* Has the flexibility to meet the individual needs and abilities of each pupils

**INTENT, IMPLEMENTATION AND IMPACT**

**INTENT**

Archbishop Courtenay Primary School’s Computing Curriculum is broad and ambitious, and designed to give all our pupils, particularly those that are disadvantaged and pupils with SEND, the knowledge and cultural capital they need to succeed in life creating *a strong, resilient and proud community, ready to learn, thrive and flourish together.*

**Early years**

It is important in the foundation stage to give children a broad, play-based experience of IT and computing in a range of contexts, including off-computer activities and outdoor play and *nurture the children with kindness and compassion.*

Computing is not just about computers. Early years learning environments should feature IT scenarios based on experience in the real world, such as in role play. Children gain confidence, control and language skills through opportunities such as ‘programming’ each other using directional language to find toys/objects, creating artwork using digital drawing tools and controlling programmable toys.

Outdoor exploration is an important aspect and using digital recording devices such as i-pads and tablets with integrated cameras and microphones for recording moving and still images and sounds, digital cameras, and laptops with voice recognition software can support children in developing communication skills. This is particularly beneficial for children who have English as an additional language.

**Key stage 1**

By the end of key stage 1 pupils are taught to:

• understand what algorithms are, how they are implemented as programs on digital devices, and that programs execute by following a sequence of instructions

• write and test simple programs

• use logical reasoning to predict the behaviour of simple programs

• organise, store, manipulate and retrieve data in a range of digital formats

• Communicate safely and respectfully online, keeping personal information private, and recognise common uses of information technology beyond school.

**By the end of key stage 2 pupils are taught to:**

• design and write programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts

• use sequence, selection, and repetition in programs; work with variables and various forms of input and output; generate appropriate inputs and predicted outputs to test programs

• use logical reasoning to explain how a simple algorithm works and to detect and correct errors in algorithms and programs

• understand computer networks including the internet; how they can provide multiple services, such as the world-wide web; and the opportunities they offer for communication and collaboration

• describe how internet search engines find and store data; use search engines effectively; be discerning in evaluating digital content; respect individuals and intellectual property; use technology responsibly, securely and safely

• Select, use and combine a variety of software (including internet services) on a range of digital devices to accomplish given goals, including collecting, analysing, evaluating and presenting data and information.

Archbishop Courtenay Primary School’s bespoke Computing Curriculum is designed in a way that allows pupils to transfer key knowledge to long-term memory; it is sequenced so that new knowledge and skills build on what has been taught before and towards defined end points.

Our key principles of implementation include:

* Teachers have expert knowledge of the subjects they teach
* Teachers present key concepts clearly and invite appropriate discussions
* Teachers check pupils’ understanding effectively, identifying and correcting misunderstandings
* Teachers ensure that pupils embed key concepts in their long-term memory and apply them fluently
* Teachers enable pupils to transfer key knowledge to long-term memory, sequence the learning and ensure that it is building towards the defined end points
* Teachers use assessment to check pupils’ understanding
* Teachers use assessment to help pupils embed and use knowledge fluently, develop their understanding, and not simply memorise disconnected facts.

**Planning:**

Lessons are planned using the National Curriculum and school’s Computing Skills Progression objectives linked to the Teach Computing Lesson plans for main sections of the curriculum (e.g. coding) and are available for teachers to use and adapt as necessary for their class.

A minority of children will have particular teaching and learning requirements which go beyond the provision for that age range and if not addressed, could create barriers to learning. This could include G&T children, those with SEN or those who have EAL. Teachers must take account of these requirements and plan, where necessary, to support individuals or groups of pupils to enable them to participate effectively in the curriculum and assessment activities. During any teaching activities, teachers should bear in mind that special arrangements could be made available to support individual pupils. This is in accordance with the school inclusion policy. These children should be identified and discussed at pupil progress meetings to ensure that appropriate provisions, equipment and/or interventions are made accessible.

**Assessment:**

At Archbishop Courtenay Primary School, we believe for computing, that assessment should be process orientated - reviewing the way that techniques and skills are applied purposefully by pupils to demonstrate their understanding of computing concepts. As assessment is part of the learning process, it is essential that pupils are closely involved.

Assessment can be broken down into:

• **Formative assessments**: carried out during and following short focused tasks and activities. They provide pupils and teaching staff the opportunity to reflect on their learning in the context of the agreed success criteria. This feeds into planning for the next lesson or activity.

• **Summative assessment**: review pupils' ability and provide a best fit ‘level’. Independent tasks provide a number of opportunities and scope for pupils to demonstrate their capability throughout the term. There should be an opportunity for pupil review and identification of next steps.

Summative assessment should be recorded for all pupils – showing whether the pupils have met, exceeded or not achieved the learning objectives for a particular unit of learning. We use Bromcom as our central data hub and assess the pupils as:

B/B+ - beginning to access knowledge and skills the year group curriculum

D/D+ - Developing knowledge and skills within the year group curriculum

S/S+ - Secure knowledge and skills within the year group curriculum

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 have yet to obtain, obtained or exceeded the expectations of the unit. The children’s work is saved on the school network. Other work may be printed, filed within the subject from which the task was set or displayed in the computing suite.

**EARLY YEARS FOUNDATION STAGE**

All areas of learning and development are important and inter-connected. We have identified the following areas as particularly crucial for igniting children’s curiosity and for building their capacity to learn, form relationships and thrive.

**SPECIFIC AREA:**

*Knowledge of the world (Computing – comes under this area)*

We deliver learning for all of the areas through purposeful play and learning experiences, with a balance of adult-led and child-initiated activities. At Archbishop Courtenay Primary School, we recognise that children learn and develop in different ways and at different rates. We value all areas of learning and development equally and understand that they are inter connected and ensure:

**CREATIVITY AND CRITICAL THINKING**

Children should be given opportunity to be creative through all areas of Computing. At Archbishop Courtenay Primary School, we can support children’s thinking and help them to make connections by showing genuine interest, offering encouragement, clarifying ideas and asking open questions. Children can access resources freely and are allowed to move them around the classroom to extend their learning.

* Focusses on getting the basic skills right early, with high emphasis placed on communication, early number, phonics, vocabulary skills Personal, Social and Emotional Development (PSED).
* Focusses on ensuring pupils are well rounded, thoughtful and able to work in a variety of group and individual situations with thoughtfulness and resilience.
* Focusses on building happy, confident learners.

**INCLUSION**

Teachers set high expectations for all pupils. They use appropriate assessment to set ambitious targets and plan challenging work for all groups, including:

- More able pupils

- Pupils with low prior attainment

- Pupils from disadvantaged backgrounds

- Pupils with SEN

- Pupils with English as an additional language (EAL).

Teachers plan lessons so that pupils with Special Education Needs and Disabilities (SEND) can study every National Curriculum subject, wherever possible, and ensure that there are no barriers to every pupil achieving in order to create *a strong, resilient and proud community, ready to learn, thrive and flourish together.* Teachers also take account of the needs of pupils whose first language is not English. Lessons will be planned so that teaching opportunities help pupils to develop their English, and to support pupils to take part in all subjects and *nurture the children with kindness and compassion*.

**MONITORING ARRANGEMENTS**

Governors monitor coverage of National Curriculum subjects and compliance with other statutory requirements through:

* The Board of Governors Curriculum Committee is responsible for monitoring the way the school curriculum is implemented – agenda led and monitored to address each subject area including Computing.
* Named Governors with responsibility for Computing - governors liaise with the subject leaders and monitor closely the way the school teaches Computing.
* The head teacher is responsible for the day-to-day organisation of the Computing curriculum.
* Subject Leader monitors the way that their subject is taught throughout the school through:

- Lesson Observations;

- Learning Walks;

- Pupil Voice;

- Analysis of data;

- Planning scrutinises;

- Work scrutinises

In addition, the subject leader and Computing Technician have responsibility for monitoring the way in which resources are stored and managed. The Subject Lead reports back to staff and SLT verbally reporting on standards and monitoring activities.

**IMPACT OF THE SCHOOL’S CURRICULUM**

**The school implements a broad, balanced and enriched Computing curriculum as a result:**

* Pupils will develop detailed knowledge and skills across the Computing curriculum
* Through continuous precision in planning, we know that the Computing curriculum is covered in the required depth exemplified within the statutory and non-statutory guidance of the national curriculum.
* Pupils will have the opportunities to regularly revisit concepts and link ideas together.
* Development of the whole child and gaining a sense of awe and wonder, pupils are happy engaged learners eager to share their learning with adults, family and class peers.
* Focus on developing specific subject knowledge, as well as the skills in each subject, pupil’s progression through the Key Stages is ensured and readily exemplified; through display and case studies, performance and demonstrable achievements.
* Focus on providing opportunities of working with children beyond their own school, gender, religion and experience, pupils are able to mix, collaborate and work appreciate the views of others.
* A curriculum focusing on technology in the wider world: pupils to leave Archbishop Courtenay Primary School able to integrate into modern British Society.
* Active engagement with parents, the curriculum goes beyond the classroom and promotes home study and research, parents are engaged and have ownership of the school and see it as part of the community.
* The computing curriculum being fully inclusive for all, pupils have time and opportunities to work alongside their class peers who may have learning and physical needs, this creates a strong sense of care and inclusivity.
* Lessons are developed and planned around pupil’s interests and questions, pupils are actively engaged in their own learning and eager to investigate beyond the classroom.