The King's C of E Primary Academy
Computing Policy

Policy Awaiting Ratification

This policy is rooted firmly in our desire to fulfil our Vision to enable us to continue
'Living Well Together'

Vision Statement

Growing confident and aspirational children who believe in themselves and contribute positively to their community and the wider world.

Mission

Our Mission is to ensure that:

- All children develop the **knowledge, skills and character** to live happy, healthy and successful lives
- All children are respected and treated with **equity**
- All children are taught to be **resilient** and **aspirational**, encouraging them all to achieve their full potential
- All children know that they have a positive role to play in the world and that their contributions are valued in the **community**
- All children are encouraged in their **personal, moral and spiritual** development within a Christian framework.

Our Core Values

Kindness

Learning respectfully alongside each other, helping each other to grow through our acts of kindness.

"Do for other people the same things you want them to do for you." **Matthew 7 v 12**

Friendship

United as a family we bring light to our community and the wider world.

"A sweet friendship refreshes the soul." **Proverbs 27 v 9**

Faith

Aspiring to learn with courage and faith, believing in God, ourselves and each other so that we can live life in all its fullness

"Faith can move mountains". **Matthew 17 v 20**

Purpose of the COMPUTING Policy

The school's aims are to:

- To provide a relevant, challenging and enjoyable curriculum for Computing for all pupils
- To meet the requirements of the national curriculum programmes of study for Computing
- To use Computing as a tool to enhance learning throughout the curriculum
- To respond to new developments in technology
- To equip pupils with the confidence and capability to use Computing throughout their later life
- To develop the understanding of how to use computers and the internet safely and responsibly
- To develop a sense of curiosity about the world around them
- To develop and enrich subject specific vocabulary

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;

Teaching and Learning

Our planning for Computing, follows the revised National Curriculum for Computing guidelines September 2014 and the Early Years Framework.

Computing is taught weekly in years 1-6 with each class accessing the Computing suite. The foundation classes will teach COMPUTING throughout the week in the foundation unit. Years 1 -6 will follow the 1learn2 scheme of learning to ensure thorough and progressive coverage.

In EYFS, it is important in the foundation stage to give children a broad, play-based experience of Computing in a range of contexts, including outdoor play. Computing is not just about computers. Early years learning environments should feature Computing scenarios based on experience in the real world, such as in role play. Children gain confidence, control and language skills through opportunities to 'paint' on the whiteboard or drive a remote-controlled toy. Recording devices can support children to develop their communication skills. This is particular useful with children who have English as an additional language.

We recognise the importance of constantly revisiting learning. Our learning environments encourage children to return to past learning regularly so that they can embed key concepts, skills and knowledge. Hands on activities are favoured. Children's work will be saved where possible and teachers will track progress using the given excel spread sheet.

Each class area also has a Curiosity area. This area has non-fiction reading material such as books, leaflets, knowledge organisers, maps, a globe, etc. These resources are there to reinforce prior learning and to develop a sense of inquisitiveness. We want children to be curious learners. We want them to be thirsty for knowledge and our reading areas reflect this.

How do we teach COMPUTING?

We believe in quality first teaching which involves:

▪ highly focused lesson design with sharp learning intentions.

▪ high demands of pupil involvement and engagement with their learning.

▪ high levels of interaction for all pupils.

▪ appropriate use of teacher questioning, modelling and explaining.

▪ an emphasis on learning through dialogue, with regular opportunities for pupils to talk both individually and in groups.

▪ an expectation that pupils will accept responsibility for their own learning and work independently.

▪ regular use of encouragement and authentic praise to engage and motivate pupils.

Interdisciplinary learning:

Teachers are encouraged to teach Computing through interdisciplinary learning. Interdisciplinary learning is a planned approach to learning which uses links across different subjects to enhance learning. This enables our children

▪ to make connections between subjects.

▪ to transfer key skills and knowledge to deepen understanding.

What do we teach through COMPUTING?

There is clear progression in the teaching of Computing at The King's C of E Primary Academy.

All curriculum choices are based on The National Curriculum 2014. It reflects the individual community of The King's c of E Primary Academy. We believe in enriching the children's life experiences as much as possible so every opportunity is made to link **The King's Charter** activities to units of work in Computing vocabulary is at the heart of every lesson.

Subject specific vocabulary is taught directly and revisited frequently to make sure that children can discuss their learning in an informed and intelligent manner. Vocabulary progression lists have been agreed by the teaching team.

Certain skills and knowledge are taught at different stages of the child's development and are then revisited and reviewed in subsequent years. The Subject Leader is responsible for ensuring all staff know when these skills have to be taught and at what stage they should be mastered by.

- YEAR 1 MOUSE AND KEYBOARD SKILLS (4-6 HOURS)
- YEAR 1 DIGITAL ART (1-2 HOURS)
- YEAR 1 DESIGN (1-2 HOURS)
- YEAR 1 TEXT AND IMAGES (3-4 HOURS)
- YEAR 1 COMIC CREATION (1-2 HOURS)
- YEAR 1 MUSIC CREATION (1-2 HOURS) - FREE
- YEAR 1 INTRODUCE PROGRAMMING (5-7 HOURS)
- YEAR 1 E-SAFETY (1-2 HOURS)

- YEAR 2 RECOGNISE USES OF IT (1-2 HOURS)
- YEAR 2 DIGITAL ART (3-4 HOURS)
- YEAR 2 INTRODUCTION TO ANIMATION (3-4 HOURS)
- YEAR 2 INTRODUCE DATA HANDLING (3-4 HOURS) - FREE
- YEAR 2 EBOOK CREATION (3-4 HOURS)
- YEAR 2 DEVELOP PROGRAMMING (3-4 HOURS)
- YEAR 2 PROGRAMMING WITH SCRATCH JR (3-4 HOURS)
- YEAR 2 E-SAFETY (1-2 HOURS)
- YEAR 2 INTERNET RESEARCH (1 HOUR +)

- YEAR 3 COMIC CREATION (3-4 HOURS) - FREE
- YEAR 3 DIGITAL ART (4-6 HOURS)
- YEAR 3 PROGRAMMING IN SCRATCH (4-6 HOURS)
- YEAR 3 MUSIC CREATION (3-4 HOURS)
- YEAR 3 PROGRAMMING IN KODU (3-5 HOURS)
- YEAR 3 DOCUMENT EDITING AND CREATION (1-2 HOURS)
- YEAR 3 3D DESIGN (3-5 HOURS)
- YEAR 3 E-SAFETY (1-2 HOURS)

- YEAR 4 ANIMATION (6-8 HOURS) - FREE
- YEAR 4 PROGRAMMING IN SCRATCH (6-8 HOURS)
- YEAR 4 INTERNET RESEARCH (3-4 HOURS)
- YEAR 4 DATA HANDLING (3-4 HOURS)
- YEAR 4 3D DESIGN (3-5 HOURS)
- YEAR 4 VIDEO EDITING (2-3 HOURS)
- YEAR 4 EBOOK CREATION (3-5 HOURS)
- YEAR 4 E-SAFETY (1-2 HOURS)

- YEAR 5 PROGRAMMING IN SCRATCH (5-7 HOURS)
- YEAR 5 APP DESIGN (4-6 HOURS) - FREE
- YEAR 5 TEXT-BASED PROGRAMMING (3-4 HOURS)
- YEAR 5 DATA HANDLING (3-5 HOURS)
- YEAR 5 PROGRAMMING WITH SPHERO (3-5 HOURS)
- YEAR 5 COMPUTER NETWORKS + THE INTERNET (2-3 HOURS)
- YEAR 5 PHYSICAL DEVICES (3-5 HOURS)
- YEAR 5 EBOOK CREATION (3-5 HOURS)
- YEAR 5 MUSIC CREATION (3-4 HOURS)
- YEAR 5 E-SAFETY (1-2 HOURS)

- YEAR 6 PROGRAMMING IN SCRATCH (7-9 HOURS)
- YEAR 6 COMPUTERS: PAST, PRESENT AND FUTURE (2-3 HOURS)
- YEAR 6 BINARY CODE (2-3 HOURS)
- YEAR 6 PYTHON PROGRAMMING LANGUAGE (2-3 HOURS)
- YEAR 6 GRAPHIC DESIGN (2-3 HOURS)
- YEAR 6 IMAGE EDITING (2-3 HOURS)
- YEAR 6 HTML (5-8 HOURS) - FREE
- YEAR 6 VIRTUAL REALITY (5-8 HOURS)
- YEAR 6 WEB DESIGN (5-8 HOURS)
- YEAR 6 E-SAFETY (1-2 HOURS)
- YEAR 6 MACHINE LEARNING AND AI (1-2 HOURS)

The Role of the Subject Leader

- Analyse and build the appropriate provision in their subject**,** then cultivate the staff's pedagogical content knowledge to maximise learning across their school.
- Keep up to date with subject area developments through research, training and networking with colleagues in other schools and academies
- Monitoring the standards of children's learning and the quality of teaching
- Create a subject area action plan each year and review regularly.
- Ensure all staff know when knowledge and skills have to be taught and at what age they should be mastered by.
- Complete monitoring reports termly
- Audit resources and ensure all staff have the skills, knowledge and resources that they need to teach COMPUTING.

Inclusivity and Accessibility

At The King's C of E Primary Academy, we are committed to providing a fully accessible environment which values and includes all pupils, staff, parents and visitors regardless of their education, physical, sensory, social, spiritual, emotional, sexual orientation and cultural needs. We are also committed to challenging negative attitudes about disability and accessibility and to developing a culture of awareness, tolerance and inclusion.

We design our own units of learning, customising them to meet the needs of our pupils; including those who have learning difficulties and those who are gifted and talented. This ensures our teaching and learning meets the demands and interests of the full range of learners and keeps pace with changes. We challenge stereotypes and mitigate bias through the careful selection of resources and discussion areas.

Children with special educational needs and disabilities (SEND)

• teachers adapting planning so that individuals have specific learning outcomes.

• teachers working specifically with children with SEND.

• providing extra adult support in class so that children are focused on accessing the curriculum.

• meeting regularly in staff teams to discuss provision and if it needs to be adapted.

• liaising with outside agencies to receive the best advice on how to help children learn.

• adapting buildings and furniture if necessary so that children are not restricted from using the school fully.

Disadvantaged Pupils

Our moral purpose is also to do something extra for our disadvantaged children AND our big challenge is to make certain that our disadvantaged children make at least good progress compared to their peers. All our teachers recognise and accept that the vast majority of pupils' progress comes

out of good teaching and learning on a day to day basis. As a school we receive funding for disadvantaged pupils. This is used to increase the attainment of pupil premium children, looked after children and armed forces children.

We ensure as a non-negotiable that:

- we all know who our disadvantaged children are.
- when planning these children have that little bit extra.
- we mark their work first when we are fresher.
- questions are directed at these pupils specifically at all times.
- we talk to these children about their learning constantly
- we monitor the progress of these children constantly

Differentiation

Differentiation is the process of matching learning tasks to particular groups or individuals. Teachers have to consider differences when planning and teaching lessons in order to ensure that all abilities in the class are catered for.

Assessment

Computing is assessed both formatively and summative. Formative assessment occurs on a lesson by lesson basis based on the lesson objectives and outcomes in the Scheme of Work. These are conducted informally by the class teacher and are used to inform future planning. Classroom laptops can be used to support this. Monitoring of lessons through informal observation.

Examples of work should be saved or printed and added to the Computing monitoring folder.

Teachers discuss learning with each child and use Revisit and Review tasks at the beginning of each lesson to determine if children have retained prior learning from the previous day, week, month and year. Where gaps are shown, teachers reflect on this in their planning so that these missing elements can be retaught.

Health and Safety

All staff are aware of the requirements of the school's Health and Safety Policy. Risk assessments are carried out for all activities, taking into account medical issues, where needed. Visits to off-school sites are arranged in line with the school visits policy.

Dissemination of this policy

The policy will be publicised to all teaching staff in a staff meeting and to all parents via the school website. Copies will be made available for all parents who request it.

Policy:	**COMPUTING**
Written and agreed by:	The Head Teacher and members of the SLT
Date written:	April 2021
Approved by:	The Governing Body
Date:	Policy Awaiting Ratification
Review cycle:	Bi-annually
Review Date	May 2023