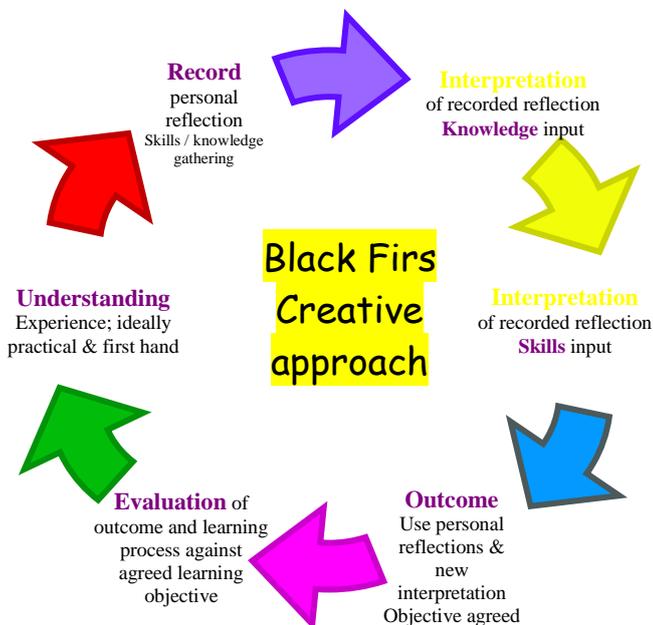# Computing & ICT Policy Document

Black Firs Primary School

1. Introduction

The 2014 national curriculum introduces a new subject, computing, which replaces ICT. This represents continuity and change, challenge and opportunity. It gives schools the chance to review and enhance current approaches in order to provide an even more exciting and rigorous curriculum that addresses the challenges and opportunities offered by the technologically rich world in which we live.

Computing is concerned with how computers and computer systems work, and how they are designed and programmed. Children studying computing will gain an understanding of computational systems of all kinds, whether or not they include computers. Computational thinking provides insights into many areas of the curriculum, and influences work at the cutting edge of a wide range of disciplines.

Record personal reflection Skills / knowledge gathering

Interpretation of recorded reflection **Knowledge** input

Black Firs Creative approach

Understanding Experience; ideally practical & first hand

Interpretation of recorded reflection **Skills** input

Evaluation of outcome and learning process against agreed learning objective

Outcome Use personal reflections & new interpretation Objective agreed

The Internet Access & Use Policy and the E Safety Policies should also be read in conjunction with this policy.

2. The Nature of Computing

The new National Curriculum presents the subject as one lens through which children can understand the world. There is a focus on computational thinking and creativity, as well as opportunities for creative work in programming and digital media.

The introduction makes clear the three aspects of the computing curriculum: **computer science** (CS), **information technology** (IT) and **digital literacy** (DL).

The core of computing is computer science, in which children are taught the principles of information and computation, how digital systems work and how to put this knowledge to use through programming. Building on this knowledge and understanding, children are equipped to use information technology to create programs, systems and a range of content. Computing also ensures that children 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.

Ratified by the Governing Body.

3. Entitlement

The new National Curriculum states that children should be taught to:

	Key Stage 1	Key Stage 2
Computer Science	Understand what algorithms are; how they are implemented as programs on digital devices; and that programs execute by following precise and unambiguous Instructions. Create and debug simple programs. Use logical reasoning to predict the behaviour of simple programs.	Design, write and debug 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. Use logical reasoning to explain how some simple algorithms work 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. Appreciate how [search] results are selected and ranked.
Information Technology	Use technology purposefully to create, organise, store, manipulate and retrieve digital content.	Use search technologies effectively. Select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information.
Digital Literacy	Recognise common uses of information technology beyond school. 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.	Understand the opportunities [networks] offer for communication and collaboration. Be discerning in evaluating digital content. Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact.

Early Years

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. Outdoor exploration is an important aspect, supported by computing toys such as sound buttons to help them enhance their play by incorporating pre-recorded sounds or recording their own sounds to use in their play.

4. Implementation

Ratified by the Governing Body.

At Black Firs Primary School, Computing will be taught both as a discrete subject and in a cross-curricular way when the opportunity presents itself.

The Computer Suite and the PCs distributed around the school will be used to help children access the Computing curriculum, along with a range of other resources such as programmable toys.

The Computing subject leader and the Headteacher will continually monitor the resources required to deliver the Computing element of the new National Curriculum.

5. Role of the Computing Co-ordinator
- Highlight areas for the development of Computing within the School Development Plan.
- To assist the Headteacher with the purchase and maintenance of equipment and software licences.
- Ensure that all equipment is safe to use.
- Review and keep a record of Continuing Professional Development needs of all staff and provide suitable training opportunities.
- Disseminate relevant information to all members of staff.
- Keep up to date with developments and new technologies through relevant documents, magazines and internet sites.
- Ensure a whole school approach to the planning, recording and assessment of Computing.
- Ensure that this policy is successfully implemented throughout the school.
- Review and update this policy periodically.

6. Health and Safety (see also Health & Safety Policy)
The school is aware of the health and safety issues involved in children's use of ICT and computing. 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 the business manager or Headteacher who will arrange for repair or disposal.

• 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
• e-safety guidelines are set out in the e-safety policy.

7. Children with Special Educational Needs
Children with Special Educational Needs benefit from using ICT as it enhances access to the curriculum, and this in turn encourages motivation and the development of skills ensuring significantly higher achievements. Therefore, the opportunities to utilise ICT should be maximised.

8. Assessment
Assessment of children's work in Computing is ongoing. The Staff feedback to parents through Earwig throughout the year.

9. Review
The Coordinator, Headteacher and staff will review this policy in accordance with the development priorities stated in the School's Development Plan. Any suggested amendments will be presented to the Governing Body for discussion.

Ratified by the Governing Body.