**Berrycoombe primary**
**Revised March 2021**

<u>**Berrycoombe School Computing Policy**</u>

The purpose of this document is to state the aims, principles, strategies and organisation of the teaching of Computing through Reception, Key Stage 1 and Key Stage 2.

The National Curriculum (2014) states:

*"A high-quality computing education equips pupils to use computational thinking and creativity to understand and change the world. Computing has deep links with mathematics, science and design and technology, and provides insights into both natural and artificial systems. The core of computing is computer science, in which pupils 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, 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."*

## Aims and Objectives

The objectives of teaching computing in our school follow those set out in the national curriculum and will enable children to:

- Understand and apply the fundamental principles and concepts of computer science, including abstraction, logic, algorithms and data representation
- Analyse problems in computational terms, and have repeated practical experience of writing computer programs in order to solve such problems
- Evaluate and apply information technology, including new or unfamiliar technologies, analytically to solve problems
- Be responsible, competent, confident and creative users of information and communication technology

## Planning and Teaching

Children learn best when learning activities are well planned, ensuring progress in the short, medium and long term. Our school uses the iCompute scheme of work to deliver high quality computing schemes of work. The iCompute Scheme provides teachers with week by week lesson support for each year group in the school. It is ideal for specialist and non-specialist teachers and provides lesson plans, assessment, clear progression, and engaging and exciting resources to support every lesson. The Scheme supports all the requirements of the new National Curriculum and provides a practical, exploratory and child-led approach to computing

learning. A progressive programme of e-Safety knowledge and understanding takes place in every year in the Autumn term. This programme is informed by the Twinkl e-safety scheme of work.

## Assessment for Learning

Assessment is undertaken in a range of ways:
- Questioning in order to understand children's computing understanding i.e. open-ended questioning and using the outcomes to guide summative and formative assessments.
- Sharing what has taken place during the lesson with other classes and parents/carers.
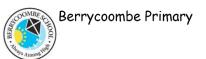
## The Foundation Stage

We relate the computing aspects of the children's work to the objectives set out in the Early Learning Goals (ELGs) which underpin the curriculum planning for children aged three to five. Computing contributes to a child's understanding the world. The ELGs states that children should recognise that a range of technology is used in places such as homes and schools, and select and use technology for particular purposes. The EYFS class has daily access to 8 iPads, and twice weekly access to 32 iPads for either the whole morning, or whole afternoon sessions. These iPads are loaded with apps that cover all areas of the ELGs, which have been selected by the EYFS teacher.

## Computing Across Other Areas of the Curriculum

ICT is an invaluable tool to support learning across all areas of the curriculum. The individual subject leads have thoroughly evaluated the subject they are leading and advised the Computing lead of which apps would be best suited to support learning within the subject they lead. This means that the use of ICT across all subjects is productive and engrained. A main outcome of Computing learning of logic and problem solving. These skills transfer seamlessly to the reasoning and problem solving elements Teaching for Mastery in Maths.

## Computing and Inclusion

At Berrycoombe School we believe all our children are entitled to benefit from access to a curriculum which takes account of unequal starting points. Therefore, we have embedded the use of specific technologies to meet the needs of our targeted students. All children regardless of ethnicity, gender, disability or physical ability will be given equal access to work and equipment.

**Resources**

All members of staff have the responsibility to ensure the correct use of computer hardware and software. They are responsible for informing the subject lead and then logging on Teams Channel titles 'DNS Visits' with problems experienced with any equipment. Each class teacher is equipped with a laptop and iPad and each classroom has a touch screen and desktop computer. Each Key Stage (**and** upper KS2 Year 4 and 5 and lower KS2 Year 3 and 4 )has 32 iPads to use with class. The organisations of these is designated to the Phase Leaders. Each subject lead is responsible for identifying apps that will enhance their learning of their subject and informing the subject leader of their choices. All PCs and iPads and computers are internet enabled and all communications and searches are protected from unsuitable material by safe filtering supplied by Smoothwall, set up by Duchy Network Solutions (DNS).  All staff are given the iCompute log in to be able to access all the interactive resources on line.

Monitoring and review

The subject leader will monitor the teaching of computing by all staff, as well as supporting all teaching staff with updates and resources throughout the year.
This policy will be reviewed every two years.

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