COMPUTING POLICY

Aim
To develop, maintain and stimulate children's knowledge, curiosity, enjoyment and interest in Computing as a tool for learning and a skill for life.

Introduction

The 2014 national curriculum introduces a new subject, computing, which replaces ICT. 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 our technologically rich world.

Computing looks at how computers and computer systems work, and how they are designed and programmed. Pupils studying computing will gain an understanding of computational systems of all kinds, whether or not they include computers.

Method

The focus of the new curriculum is on computational thinking and creativity, as well as opportunities for programming and digital media. The new curriculum has been broken down therefore into three aspects of learning

	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

Teaching & Learning

A range of teaching and learning strategies, appropriate to the learning objectives and the age and ability of the children, are employed. In computing lessons the children will regularly work with computers or Ipads, however a number of computing lessons may be carried out using a range of technologies including beebots and probots. Work may be completed in one session or may be ongoing and developmental in nature.

Computing work may involve whole class teaching or work in groups, pairs or as individuals; it can be taught both as a discrete subject and in a cross-curricular way. It will involve learning through demonstration and experimentation. Work may be open ended or of fixed outcome. It is important that children enjoy a wide range of Computing experiences in order to appreciate the versatility of technology as a tool for learning.

Differentiation is used to cater for the range of abilities in any one group. This may take any of the following forms: differentiation by activity, instructions, outcome, intervention, support or level of challenge set.

Assessment & Reporting

Assessment is an important part of Computing teaching and takes the following forms:

- Teacher Assessment - This is ongoing and is based on questioning, observation of work and approach adopted, outcome of tasks set. This is used to inform planning and is recorded on the child's individual ICT record sheet.
- End of Topic Assessment - This takes place at the end of each unit of work. It assesses the skills and concepts covered over a period of time and also acts as a tool for consolidation. Progress is measured against the learning objectives set and is recorded in books/file. This information is used to inform the annual report to parents and to record the child's progress on their individual record.
- Self Assessment – This is a tool whereby the child can assess their progress against individual targets for improvement/development.

Monitoring

Computing is monitored in the following ways:

- The co-ordinator monitors planning, checking for coverage, progression and differentiation.
- The co-ordinator samples work and gives feedback to colleagues.
- The Management Team sample work in line with the work sampling cycle.
- The co-ordinator and Management Team check the progress against targets in the School Improvement Plan.
- Learning walks by co-ordinator and gives feedback to colleagues.
- Pupil voices conducted by co-ordinator.
- Children's safety online monitored by Impero programme accessed by all staff when children are online.

Evaluation

This policy will be reviewed in line with the school policy review cycle

This policy was reviewed by the coordinator November 2016

This policy was reviewed by the school governors

Signed: **Date:**