Computing

Status	Curriculum
Review Cycle	Annual
Date written/ last review	September 2021
Date of next review	September 2022

Introduction

A high-quality Computing curriculum prepares pupils to participate in a rapidly changing world in which work and other activities are increasingly transformed by access to varied and developing technology.

Computing has clear links with mathematics, science and design and technology and is an important tool in both the society we live in and in the process of teaching and learning. Pupils use ICT tools to find, explore, analyse, exchange and present information responsibly, creatively and with discrimination. They learn how to employ ICT to enable rapid access to ideas and experiences from a wide range of sources.

Our vision is for all teachers and learners in our school to become effective users of technology so that they can develop the skills, knowledge and understanding which enables them to use appropriate ICT resources effectively as powerful tools for teaching & learning in and out of school.

Aims

•To enable children to become autonomous, independent users of ICT, gaining confidence and enjoyment from their ICT activities

•To enable pupils to develop attitudes, knowledge, skills and understanding in ICT for use in the curriculum, society and the world of work

•To develop a whole school approach to ICT ensuring continuity and progression in all strands of the Computing National Curriculum

•To use ICT as a tool to support teaching, learning and management across the curriculum

•To provide children with opportunities to develop their computing capabilities in all areas specified by the Curriculum

•To ensure ICT is used, when appropriate, to improve access to learning for pupils with a diverse range of individual needs, including those with SEN and disabilities

•To maximise the use of ICT in developing and maintaining links between other schools, the local community including parents and other agencies.

•To understand and apply the principles and concepts of Computer Science.

• To analyse computational problems and have practical experiences of writing computer programs to solve these problems

Objectives

In order to fulfil the above aims it is necessary for us to ensure:

•a continuity of experience throughout the school both within and among year groups

•the systematic progression through Foundation Phase, KS1 & KS2

•that the National Curriculum programmes of study and their associated strands, level descriptions and attainment target are given appropriate coverage

•that all children have access to a range of ICT resources

•that ICT experiences are focused to enhance learning

•that cross curricular links are exploited where appropriate

•that children's experiences are monitored and evaluated

•that resources are used to their full extent

•that resources and equipment are kept up-to-date as much as possible

•that staff skills and knowledge are kept up-to-date

ICT:

- Improves self-esteem;
- Prepares pupils for life and work as responsible members of society;
- Motivates, excites and gives pleasure;
- Is complementary to other learning experiences as an additional medium for expression and interaction, as a focus for oral development, and in relating abstract ideas to concrete operations;
- Allows for the matching of tasks and pace of learning to the interest, motivation and capability of the learner;
- Allows pupils to take charge of their own learning, leading to greater autonomy;
- Provides pupils with immediate feedback in a safe environment, yet teaches them of the dangers of unrestricted access to the Internet;
- Allows them to work with a technology which is neutral and non-threatening;
- Facilitates a variety of learning styles - individual, collaborative, whole class and is supportive for slow and fast workers within each learning style;
- Improves the quality of presentation and motivates children to continue to improve;

- Can provide an alternative or additional communication medium for pupils with special educational needs and for pupils with English as an Additional Language;
- Allows routine tasks to be completed with increased speed and better presentation;
- Builds on home experiences of technology;
- Provides pupils with a medium for sharing their work with a wider audience, both local and worldwide, therefore giving more relevance to learning.

Planning and Assessment

There is a comprehensive plan covering all year groups. Progression is demonstrated by:

- Carrying out more complex tasks.
- Moving from a familiar problem to an unfamiliar one.
- Applying more advanced skills.
- Becoming more independent and confident in the use of ICT.
- Using a wider range of more sophisticated software.
- Suggesting improvements beyond the immediate scope of the activity at hand or their own solutions to complex problems.

Planning ensures opportunities for computing are available across other subjects and ensures a balance across all aspects of ICT capability within the key stages. Opportunities for assessment are identified in medium term plans and used for planning future work. Assessment recognises that ICT capability can be demonstrated in the process of using ICT rather than just by the outcome of pupil's work.

From the earliest opportunity, pupils are involved in self-assessment. Each pupil is given their own directory / folders on the server into which to save their work. This forms part of a pupil's personal portfolio of work.

The annual record of achievements, sent out to parents each year, provides information on pupil progress in Computing. Teachers may also like to inform parents on a half-termly basis of the topics / areas to be covered so that parents may assist children's development in key skills at home.

Differentiation

Tasks are differentiated to allow for varying levels of attainment. Teachers refer to record-keeping sheets, annotations and their own observations to judge which pupils will need additional support to raise their level of attainment.

Achievement

Pupils are expected to:

- demonstrate increasing computing capability from year to year.

- develop ICT capability evenly across the key aspects appropriate to the key stage.

- apply acquired skills and knowledge to new contexts successfully.

- show an ability to judge when the use of ICT has merits over other methods.

- select the most appropriate ICT tool to use for a task.

- collaborate on tasks to produce outcomes and use ICT to facilitate such collaboration.

- use a broad range of resources and media because ICT facilitates organisation and retrieval of data.

- respond with enthusiasm and commitment to the challenge of the task.

- use ICT appropriately in response to the given task, applying and extending skills developed in other contexts.

- make informed and balanced choices in regard to the effectiveness of ICT for a particular task and select suitable ICT tools and strategies.

Major ICT equipment can be seen on the school inventory, managed in the Office by an Administrator.

Resources will be updated and developed over time to support curriculum development.