



Signed:

Date: September 2020

Reviews: September 2022

Computing Policy

"Computing is concerned with 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. Computational thinking provides insights into many areas of the curriculum, and influences work at the cutting edge of a wide range of disciplines.

Computational thinking allows us to solve problems, design systems, and understand the power and limits of human and machine intelligence. It is a skill that empowers, and one that all pupils should be aware of and develop competence in. Pupils who can think computationally are better able to conceptualise, understand and use computer-based technology, and so are better prepared for today's world and the future"

(Computing in the National Curriculum, 2014)

Vision Statement

At Seaton Delaval First School we recognise the importance of Computing and how it affects the lives of everyone. As well as being an important curriculum requirement, the ability to use Computing skills effectively is a vital life skill in modern society. Through our teaching of Computing, we equip children to participate in a rapidly changing world where work and leisure activities are increasingly transformed by technology. We enable them to find, explore, analyse, exchange and present information. We also focus on developing the skills necessary for children to be able to use information in a discriminating and effective way. Computing skills are a major factor in enabling children to be confident, creative and independent learners.

Aims

Our school aims include:

To pursue high academic standards through the provision of a broad and balanced curriculum which;

- serves the needs of all children
- motivates children to have high expectations and self esteem
- stimulates and challenges
- involves practical and first hand experiences in Computing
- complies with the legal requirements of the National Curriculum and Foundation Stage
- is continuous and progressive
- has built in monitoring, evaluation and review procedures

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.

Our aim is to produce confident and effective use of Computing. We strive to achieve this aim in the following ways:

- to develop Computing capability in finding, selecting and using information;
- to use Computing for effective and appropriate communication;
- to monitor and control events both real and imaginary;
- to apply hardware and software to creative and appropriate uses of information;
- to apply their Computing skills and knowledge to their learning in other areas;
- to use their Computing skills to develop their language and communication skills;
- to explore their attitudes towards Computing and its value to them and society in general. For example, to learn about issues of security, confidentiality and accuracy.

Teaching and learning style

Teachers are expected to employ a range of strategies and to use their professional judgement to decide on the best approach. As the aims of Computing are to equip children with the skills necessary to use technology to become independent learners, the teaching style that we adopt is as active and practical as possible. We encourage the children to explore ways in which the use of Computing can improve their results, for example, how a piece of writing can be edited or how the presentation of a piece of work can be improved by moving text about etc.

We recognise that all classes have children with widely differing Computing abilities. We provide suitable learning opportunities for all children by matching the challenge of the task to the ability and experience of the child. We achieve this in a variety of ways:

- setting common tasks which are open-ended and can have a variety of responses;
- setting tasks of increasing difficulty (not all children complete all tasks);
- grouping children by ability and setting different tasks for each ability group;
- providing resources of different complexity that are matched to the ability of the child;
- using classroom assistants to support the work of individual children or groups of children.

Foundation Stage

We teach Computing in the Foundation Stage as an integral part of the topic work covered during the year. We relate the ICT 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. The children have the opportunity to use the computers, laptops, iPads, interactive whiteboards and Beebots. Then during their time in the Foundation Stage they gain confidence and start using Computing to find information and explore concepts and ideas, using it to communicate in a variety of ways.

Curriculum Organisation

All classes will have a weekly Computing lesson and the opportunity to use and apply Computing in other curriculum subjects. Computing is an integral part of each subject's scheme of work and is shown in planning. When planning work teachers identify some activities in which the emphasis is on the development of computing capability and others in which the emphasis is on the subject that is being supported by Computing.

The contribution of Computing to teaching in other curriculum areas

English

Computing is a major contributor to the teaching of English. Through the development of keyboard skills and the use of computers, children learn how to edit and revise text. They have the opportunity to develop their writing skills by communicating with people over the Internet, and they are able to join in discussions with other children throughout the world through the medium of video conferencing. They learn how to improve the presentation of their work by using desk-top publishing software.

Mathematics

Many Computing activities build upon the mathematical skills of the children. Children use Computing in mathematics to collect data, make predictions, analyse results, and present information graphically. They also acquire measuring techniques involving positive and negative numbers, and including decimal places.

Personal, social and health education (PSHE) and citizenship

Computing contributes to the teaching of PSHE and citizenship as children learn to work together in a collaborative manner. They develop a sense of global citizenship by using the Internet and e-mail. Through the discussion of moral issues related to electronic communication, children develop a view about the use and misuse of Computing, and they gain a knowledge and understanding of the interdependence of people around the world.

Access to Computing

Each class is equipped with two computers linked to a printer. All classes have access to a bank of laptops and iPads. All computers are equipped with software that is relevant for the children who will be using them. Each classroom (EYFS - year 4) has an interactive whiteboard. Digital cameras, Beebots and a digital microscope are also available to use. To further enhance the curriculum and the computing experience for our children, we work alongside Northumberland ICT team and borrow new technologies for our pupils to explore, such as virtual reality headsets and programmable robots.

Equal opportunities

All children have equal access to Computing. We provide learning opportunities that are matched to the needs of children with particular educational needs, including gifted children. The Computing co-ordinator and the SENCO jointly advise teachers on the Computing support which can be provided, this includes hardware and software appropriate to the individual child's needs.

Assessment and recording

Assessment and recording are in line with the Assessment policy for the school. Assessment of children's computing capability is achieved by planning appropriate curriculum activities in line with the school's general policy for assessment. At the end of each program of study children's work is levelled and a sample from each level given to the Computing co-ordinator. The Computing co-ordinator keeps samples of the children's work in a portfolio.

Managing resources

All members of staff have a responsibility to ensure the correct use of computer hardware and software and to inform the co-ordinator of problems experienced with any equipment.

A service contract is in place with an outside agency to provide technical support and assistance to solve any problems with Computing ICT equipment.

Monitoring and review

The monitoring of the standards of the children's work and of the quality of teaching in Computing is the responsibility of the Computing co-ordinator and the Leadership Team. The Computing co-ordinator is also responsible for supporting colleagues in the teaching of ICT, for keeping informed about current developments in the subject and for providing a strategic lead and direction for the subject in the school. The Computing co-ordinator regularly discusses the ICT situation with the Headteacher and provides an annual summary report in which s/he evaluates the strengths and weaknesses in the subject and indicates areas for further improvement. A curriculum overview for the teaching of Computing throughout the school is provided and plans and teaching monitored as outlined in the yearly action plan.

E-safety

A school network sets an acceptable use policy for all students to accept before accessing any programmes on a Computing device. All staff and pupils sign and date an acceptable use policy for the use of School 360 in and out of school. Parents also sign an agreement to allow their child to access school computing devices. The school exercises the right to monitor the use of the schools computer systems, including access to websites, the interception of email and the deletion of inappropriate materials where it believes unauthorised use of the school's computer system may be taking place, or the system may be being used for criminal purposes or for storing unauthorised or unlawful text, imagery or sound.

Please see separate E-safety policy.