Computing Policy

Great Ponton CE Primary School

Approved by:		**Date:**
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***To inspire children to be digitally literate in order to access today's technology in a safe and efficient way*.**

1 Aims and objectives

1.1 The use of computers is changing the lives of everyone. Through teaching 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. Since the introduction of the new national curriculum in 2014 Information Technology is now referred to as 'computing' as it harnesses a range of different skills.

1.2 The aims of computing are to enable children:

- to develop capability in finding, selecting and using information;
- to use computers for effective and appropriate communication;
- to monitor and control events both real and imaginary;
- to program and debug software;
- 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.

2 Teaching and learning style

2.1 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. While at times we do give children direct instruction on how to use hardware or software, the main emphasis of our teaching in computing is for individuals or groups of children to use computers to help them in whatever they are trying to study. So, for example, children might research a history topic, or they might investigate a particular issue on the Internet. Children who are learning science might use the computer to model a problem or to analyse data. We encourage the children to explore ways in which the use of computers 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. The use of Interactive Whiteboards in each working area allows the class teachers to bring more technology into their way of teaching daily lessons. The class can use these boards to interact with their lessons making them more accessible and fun. Teachers are able to use more innovative ideas and teaching methods to enhance their lessons.

2.2 We recognise that all classes have children with widely differing computer abilities. This is especially true when some children have access to computer equipment at home, while others do not. 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, by:

- 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 or age and setting different tasks for each ability/age 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.

3 Computing curriculum planning

3.1 The school uses the National Curriculum 2014 as the basis for its curriculum planning.

3.2 We carry out the curriculum planning in computing in three phases (long-term, medium-term and short-term). The long-term plan maps the computing topics that the children study in each term during each key stage. The class teachers work these out and the children will often study computing as part of their work in other subject areas. Our long-term computing plan shows how teaching units are distributed across the year groups and how these fit together to ensure progression within the curriculum plan.

3.3 Our medium-term plans give details of each unit of work for each term. They identify the key learning objectives for each unit of work. Using packages such the 'Purple Mash Scheme' the class teachers can plan a range of interactive lessons using our equipment that provide the children with discreet computing lessons to enhance the other aspects of computing that they experience in other lessons.

3.4 The class teacher is responsible for adapting the short-term plans with the computing component of each lesson. These plans list the specific learning objectives of each lesson.

3.5 The topics studied in computing are planned to build upon prior learning. While we offer opportunities for children of all abilities to develop their skills and knowledge in each unit, we also build planned progression into the scheme of work, so that the children are increasingly challenged as they move up through the school. In a lot of cases computing is more widely used in cross curricular activities and children will find the opportunities to use computing greatly increased as technological advances are made.

3.6 The school subscribes to 3 providers for additional computing resources – Purple Mash – who provide a value for money set of planning and activities linked to all curriculum areas, Nessy, which provide specific learning programs for pupils with special needs especially concerning reading and spelling and Time Tables Rockstars for the development of timestable knowledge . Teachers use these sites to set homework and provide stimulating extension activities for topic work. Children have their own usernames and passwords so that they can access the work at school and at home.

4 Foundation Stage

4.1 We teach computing in reception classes as an integral part of the topic work covered during the year. As the reception class is part of the Foundation Stage of the National Curriculum, 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. The children have the opportunity to use the computers, ipads, interactive whiteboard and a digital cameras and can access Mini Mash on Purple Mash. Then during the year they gain confidence and start using the computer to find information and use it to communicate in a variety of ways, in preparation for the Key Stage Purple Mash curriculum.

5 The contribution of computing to teaching in other curriculum areas

5.1 Computing contributes to teaching and learning in all curriculum areas. For example, graphics work links in closely with work in art, and work using databases supports work in mathematics, while CD ROMs and the Internet prove very useful for research in humanities subjects. Computers enables children to present their information and conclusions in the most appropriate way.

5.2 Literacy

Computing is a major contributor to the teaching of Literacy. 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.

5.3 Mathematics

Many computer based activities build upon the mathematical skills of the children. Our planning allows for demonstrating processes in maths as well as the use of the interactive whiteboard for more effective teaching of units of work. Children also use computers 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.

5.4 Personal, social and health education (PSHE) and citizenship

Computing makes a contribution 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 computers, and they also gain a knowledge and understanding of the interdependence of people around the world. E-Safety is now an annual subject that we cover with KS1 and KS2 as well as with our parents and staff.

6 Teaching computing to children with special needs

6.1 At Great Ponton Primary School we teach computing to all children, whatever their ability. Computing forms part of our school curriculum policy to provide a broad and balanced education for all children. We provide learning opportunities that are matched to the needs of children with learning difficulties. In some instances the use of computing has a considerable impact on the quality of work that children produce (eg: using Nessy or Times Tables Rockstars); it increases their confidence and motivation. When planning work in computing, we take into account the targets in the children's individual health care plans.

7 Assessment and recording

7.1 Teachers assess children's work in computing by making informal judgements as they observe them during lessons. Children can assess their own progress using self assessment procedures conducted by the teacher. Formal assessment is recorded by the teacher in accordance with the school's assessment policy.

8 Resources

8.1 Our school has Interactive Whiteboards available in every classroom in addition two sets of 10 laptops and charging trollies. The school has Super Fast Fibre Broad Band internet access and a wireless network is installed. Resources are updated and audited on a regular basis by the head teacher. All of our computing hardware and software (including back ups) is monitored by and supported by InfoTech – who we buy in as our computing experts on an annual basis.

9 Monitoring and review

9.1 The monitoring of the standards of the children's work and of the quality of teaching in computing is the responsibility of the class teachers and the monitoring of the subject is the responsibility of the coordinator and governors. Planning is shared and evidence of work is collated.