



Computing Policy

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1 Aims and objectives

1.1 Computing 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. Children will develop their programming knowledge and understanding through a range of activities. Computing skills are a major factor in enabling children to be confident, creative and independent learners.

1.2 The aims of Computing are to enable children:

- 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;
- to understand, design and implement a range of computer programs.

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 by using an internet search engine or subject specific program. 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 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.

2.2 We recognise that all classes have children with widely differing Computing abilities. This is especially true when some children have access to Computing 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 in the room 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.

3 Computing curriculum planning

- 3.1** The school uses the national curriculum for Computing as the basis for its curriculum planning. We have adapted the national curriculum to the local circumstances of the school, the needs of the children, and to fit with cross curricular work.
- 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 Computing subject leader works this out in conjunction with teaching colleagues in each year group, and the children 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, which we have adopted from the national curriculum, give details of each unit of work for each term. They identify the key learning objectives for each unit of work and stipulate the curriculum time that we devote to it. The Computing subject leader is responsible for keeping and reviewing these plans.
- 3.4** The class teacher is responsible for writing the short-term plans with the Computing component of each lesson. These weekly 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.

4 Foundation Stage

- 4.1** We teach Computing in the foundation stage as an integral part of the topic work covered during the year. 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, tablets and digital cameras. Children have access to electronic devices to develop their technology skills.

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 the Internet proves very useful for research in humanities subjects. Computing enables children to present their information and conclusions in the most appropriate way.

5.2 English

Computing contributes 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 learn how to improve the presentation of their work by using desktop publishing software.

5.3 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.

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. Through the discussion of moral issues related to electronic communication, children develop a view about the use and misuse of Computing, and they also gain a knowledge and understanding of the interdependence of people around the world.

5.5 Programming

Pupils will begin to understand and apply the fundamental principles and concepts of computer science, including abstraction, logic, algorithms and data representation.

They will do this by designing and implementing their own animations and games.

6 Teaching Computing to children with special needs

6.1 At Inspire Multi Academy Trust 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; it increases their confidence and motivation. When planning work in Computing, we take into account the targets in the children's Individual Education Plans (IEPs).

7 Assessment and recording

7.1 Teachers assess children's work in Computing by making informal judgements as they observe them during lessons. At the end of a unit of work s/he makes a summary judgement about the work of each pupil in relation to the ARE. We use this as the basis for assessing the attainment/progress of the children, and pass information on to the next teacher at the end of the year.

7.2 The Computing subject leader keeps samples of the children's work in their subject leader folder. This will then form a collection of evidence which demonstrates the expected level of achievement in Computing for each age group in the school.

8 Resources

- 8.1** All schools within Inspire Trust have laptops and iPads that are shared between classes. All schools also have a computer room with a network of computers for groups of children. The school has Internet access for computers. We keep resources for Computing, including software, in a central store.

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 Computing subject leader. The Computing subject leader is also responsible for supporting colleagues in the teaching of Computing, for keeping them informed about current developments in the subject and for providing a strategic lead and direction for the subject in the school.