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. The core teaching of Computing is computer science, giving children the knowledge of how digital systems work and how they can use this knowledge in a range of computer programming. For example, children could be coding their own simple games, using spreadsheets and databases to analyse information or using search engines to find out new information. Children are taught how to use the internet safely and appropriately. Alongside this, children are also taught how to make their own digital media and this can be used to demonstrate their learning from other topics. For example, creating a blog around their favourite book character, creating their own animations or making sequences of music.

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. We use Purple Mash as a resource for unit mapping to guide planning, and as a resource for software programmes in learning sessions. Below is the link for the scheme of work overview. See Appendix 1.

https://static.purplemash.com/mashcontent/applications/schemes_of_work/computing_schemes_of_work/computing_sow_overview/Purple%20Mash%20Scheme%20of%20Work%20Overview.pdf

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 support plans.

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 forma collection of evidence which demonstrates the expected level of achievement in Computing for each age group in the school.

8. Health and Safety

The school takes very seriously and is aware of the health and safety issues surrounding children's use of IT. We ensure that pupils have a safe environment in which to learn. We ensure effective filters are in place to safeguard pupils. As such, we will ensure that:

● All fixed and portable appliances in school are tested by an approved contractor every twelve months.
● Damaged equipment is reported to the computing leaders and office manager who will arrange for repair or disposal.
● Online safety is taught by class teachers, through assemblies and our PSHE curriculum, alongside external agencies such as Community Liaison Officers, NSPCC workshops and through parent presentations. There is also a link on our school website to direct parents to further information on how to keep children safe online.
● Children learn about rights and responsibilities when using the Internet.

Our schools use Securly web filtering and monitoring software to protect all staff and pupils when online. Alerts are generated directly to Headteachers and Deputies to monitor. Safeguarding matters are delivered by an instant email alert whereas other blocks come through once per day. Head teachers, and in their absence, Deputies, review and record alerts received including where further investigation is required and any actions taken.

9. Security, Legislation, Copyright and Data Protection

We ensure that the school community is kept safe by ensuring that:

● The school's IT provider (One IT) is responsible for regularly updating anti-virus software.
● The use of IT and computing will be in line with the school's Acceptable Use Policy (AUP).
● All staff, volunteers and children must sign a copy of the schools AUP.
● All children are aware of the school rules for responsible use on login to the school network and will understand the consequence of any misuse.
● Reminders for safe and responsible use of IT and computing and the Internet will be displayed in all areas.
● Software/apps installed onto the school network server must have been vetted by the teacher for suitable educational content before being purchased and installed. No personal software is to be loaded onto school computers. Further information can be found in the school's Data Protection policy

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.

10 Links with other policies

This Computing policy is linked to the following policies:

- Behaviour and Discipline Policy
- Online Bullying Policy