LETHBRIDGE PRIMARY SCHOOL

COMPUTING POLICY

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. 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:

- Understand and apply the fundamental principles and concepts of computer science including abstraction, logic, algorithms and data representation.
- Analyse problems in computational terms and have repeated practical experience of writing computer programs in order to solve such problems.
- Can evaluate and apply information technology including new or unfamiliar technologies analytically to solve problems.
- Are responsible, competent, confident and creative users of information and communication technology.

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. At times we do give children direct instruction on how to use hardware or software in 'skills' lessons but we also use Computing capabilities to support teaching across the curriculum. So, for example, children might research a history topic by using a software programme e.g. Espresso, 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 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);
- 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 objectives from the national curriculum of work for Computing, and where possible links this to the topic.

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 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 and stipulate the curriculum time that we devote to it. The Computing subject leader is responsible for keeping and reviewing these plans. As we plan in teams, we do our medium-term planning on a two-year rotation cycle. In this way we ensure that we cover the National Curriculum without repeating topics.

3.4 Within teams, a class teacher is responsible for writing the short-term plans with the Computing component of each lesson. These plans list the specific learning objectives of each lesson. Computing is incorporated in to other curriculum areas, as Computing features in every lesson that is taught, across every subject (where reasonably possible), and planned for accordingly.

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, so that the children are increasingly challenged as they move up through the school. Children are also given the opportunities to work and record their work using Computing across all areas of the National Curriculum. A booking system is in place to encourage teachers to use all the various pieces of hardware and software, to ensure a balanced usage and acquiring of skills.

4. Foundation Stage

4.1 We teach Computing (Technology) in reception classes through whole class inputs. Children are then given the opportunity to develop these skills through planned play activities. The objectives for sessions are taken from the Early Years Foundation Stage Guidance based on where the children are currently working (age band 30-50 months through to Early Learning Goals). The children have the opportunity to use the computers, Beebots, tablets / i-pads, and digital cameras. During the year they gain confidence and start using the computer to find information and use it to communicate in a variety of ways.

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 prove 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 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 and SKYPE. They learn how to improve the presentation of their work by using desk-top publishing software. Children can use internet-based subscriber programs such as Espresso to improve various skills across the curriculum.

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. Internet-based subscriber programs such as Mathletics and Maths Whizz help children to improve their mental maths skills through their 'Live' interaction programs, where children can compete with other children around the world. They also help them to improve their general maths knowledge and skills through activities based on national curriculum areas.

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 Key Stage 2

Children in Key Stage 2 are given plenty of opportunities to use Computing as an integral part of all topic work, in all areas of the curriculum. Each classroom has a set of laptops and the children are given the options of recording work using Computing. We are continually looking at our specific needs with a view to investing in new hardware and software, to enhance learning. We have also refurbished the Computing suite, to improve availability of Computing across the key stage.

6. Teaching Computing to children with special needs

6.1 At our 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; it increases their confidence and motivation. When planning work in Computing, we can take into account the targets in the children's Individual Education Plans (IEPs) and Provision Mapping. The use of Computing can help children in achieving their targets and progressing in their learning.

7. Assessment and recording

7.1 Teachers assess children's work in Computing by making informal judgements as they observe them during lessons. The Computing subject leader will also use pupil voices as a tool to gage what type of activities and learning are going on.

8. Resources

8.1 At present, each classroom contains a bank of 5 or 6 Wireless Laptops, with a pool of 16 bookable Laptops. These can be booked by any class. There are also SMARTBoards and data projectors in each classroom and group room. The Computing suite contains 15 personal computers and workspace for additional laptops.

There is also a colour photocopier/printer that is networked to all the computers. Every computer in the school is part of the school network domain, with individual class and staff logons. This gives access to personal secure user areas for staff and class specific user areas for classes. Alongside the personal user areas there is access to a teacher shared drive, and for pupils a common shared drive. Being part of the domain, all computers and servers are protected by the Latest Sophos antivirus software. This is centrally managed by the servers which ensure all computers are up to date. All computers have access to the Internet being filtered by the SWGfL.

We are covered by the Microsoft Licencing agreement which enables us to be up to date with the latest windows operating system and office packages (Currently Windows 7, and Office 2013). All Laptops are built with the same software enabling easy access to school software resources for all.

An Computing Manager / Technician is available to support all IT aspects within the school, to help with any difficulties and to implement new software/hardware, etc.

8.2

<u>Hardware</u>

- Network colour Photocopier/printer
- scanner
- digital cameras – Tuff Cams / Flip Cams
- video recorder
- listening centres
- calculators
- robot – Beebots / Probots
- SMART Response
- Computers
- laptops
- Microphones- Easi-Speak
- Webcams
- Visualiser
- SMART Boards
- Ipads / Tablets
- Kindles

<u>Software</u>

- Microsoft Office Suite

- Alberts House
- Charlie Chimp
- Audacity
- Revelation Natural Art
- Movie Maker
- Pivot
- 2 Create a story
- 2Investigate
- 2Simple music toolkit
- 2Simple Infant Video Toolkit
- Nelson Handwriting
- Crystal Rainforest
- Clicker 6
- Numbershark 4
- WordShark 4
- Phomeme Factory
- Logo
- Education City (subscribed)
- Mathletics (subscribed)
- Phonics Play (subscribed)
- Espresso (subscribed)
- Purple Mash (subscribed)
- Maths Whizz
- TestBase

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 leaders and the Leadership Team. The Computing subject leader is also responsible for supporting colleagues in the teaching of Computing, 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 subject leader regularly discusses the Computing situation with the head teacher and provides an annual Action Plan in which s/he evaluates the strengths and weaknesses in the subject, plans for further implementations and projects using Computing and indicates areas for further improvement.

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