ICT Curriculum Policy

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1. INTRODUCTION

Computing continues to become an increasingly common feature of everyday life. In its many guises it something that requires everyone to be familiar with the vocabulary associated with it and equipped with the knowledge and skills to access or use it. Manufacturers of modern *computing* devices seem to rely on users to use them intuitively as they provide limited paper based instructions on their use. New users therefore need to be comfortable exploring technology safely and have the skills necessary to access help by electronic means.

A new National Curriculum *was* launched in September 2014 and *placed* a greater emphasis on the development of modelling, control and programming skills.

2. AIMS AND OBJECTIVES

At Newark Orchard *computing* is taught both directly and indirectly through the curriculum and through everyday experience.

2.1   *A high-quality computing education equips pupils to use computational thinking and creativity to understand and change the world. Computing has deep links with mathematics, science and design and technology and provides insights into both natural and artificial systems. 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. Building on this knowledge and understanding, pupils are equipped to use information technology to create programmes, systems and a range of content. Computing also ensures that pupils become digitally literate – able to use and express themselves and develop their ideas through information and communication technology at a level suitable to be an active and safe participant in a digital world.*

2.2   *The aims of the specific teaching of computing are to ensure that, as far as a child's ability allow they:*

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

It also teaches them how to use software packages to:

- Word process

- Desktop publish
- Paint
- Draw
- Animate
- Add to, edit and create databases
- Add to, edit and create spread sheets
- Create presentations
- Create, edit and compose sounds and music
- Create, manipulate and edit images
- Create, manipulate and edit video.
- Control devices
- Gather and analyse data using electronic sensors
- Use computers to model ideas
- Program computers to make choices and decisions.

2.3   The following objectives relate to the acquisition of knowledge skills and understanding of the use of *computing* more generally and are not specifically related to a particular piece of software:

- To teach children to log onto desktop and laptop computers and access software packages suitable for specific tasks including accessing the internet.
- To teach children how to phrase search requests using 'search engines' to find specific information and begin to assess the credibility of the results.
- To teach children how to use the internet and 'social media' safely and how to report any concerns.
- To familiarise children with a wide range of digital devices used to capture and communicate sounds, images, video and text.
- To teach children how to access or load information from CDROMs, data devices and other hardware connected to a computer.
- To teach children how to save information to a computer, CD or storage device.
- To teach children how to access and send email.

2.4   The aims of the indirect teaching of *computing* are:

- To familiarise children with the language and use of technology by integrating developments in *computing* with both the delivery of lessons and their extracurricular experiences.
- To provide students with the opportunity to explore and use a range of digital devices to develop their intuitive use of technology.
- To promote the use of *computing* as time saving tools or tools which provide high quality results.
- To acknowledge the use of *computing* as a means of entertainment and provide some experience of this use.
- To provide opportunities for children to engage with computer based independent learning activities to develop a range of skills.

2.4   For some children the use of specific and sometimes specialised *computing* is promoted as part of the Total Communication policy. It is our aim to stay informed about developments in technology so that such developments in software and devices can be evaluated for use by children who might benefit from its use in terms of enhancing their ability to communicate or accelerate their learning. For these children there exists the specific objective:

- To teach children the skills required to access and use existing, new and emerging technologies where this might provide them with the ability to communicate more effectively.

2.5   For some children the inclusion of *computing* may enable them to accelerate their rate of knowledge acquisition, their ability to record their thoughts or evidence their involvement in an activity. The judicious inclusion is considered to balance *both the* pupils' needs *to* gain both the skills to use and opportunities to access such resources, without becoming isolated from their peers by its use.

3.   THE LANGUAGE OF *COMPUTING*

It is seen as vitally important that the language of *computing* is taught specifically and that staff continue to maintain a professional awareness of the developments in the use of *it* for social, entertainment and work, domestic and industrial purposes so that they can maintain a contemporary vocabulary related to the area.

4.   THE COMMERCIALISATION AND MATERIALISM OF *COMPUTING*

It is recognised that the acquisition of contemporary technology remains an aspiration for many and its use is increasingly widespread. However, care will be taken to avoid practice which might promote the acquisition of technology for reasons of status or reward and in so doing disadvantage those who cannot afford or do not wish to adopt the technology.

5.   CONTEMPORARY APPLICATIONS OF *COMPUTING* IN SUBJECT DELIVERY

5.1   Across the curriculum, Subject Coordinators will be mindful of adding to their resources in order to reflect current developments in the use of *computing* and to enhance both the quality of teaching and learning, as budgets allow.

5.2   The Computing Coordinator in consultation with the SLT will make decisions about changes in the use or acquisition of technology for whole school use. Such decisions will result in changes to subject development plans and may result in changes to the School Improvement Plan.

5.3   Where new technology or software is introduced, staff will be given access to suitable support or training in its use as required.

6.   LEGACY DEVICES AND CUTTING EDGE DEVELOPMENTS

In order to enable children to use *computing* in as many contemporary ways as possible the school will endeavour to acquire technology that reflects contemporary developments (such as

tablets and other touch screen devices) but will maintain and use older equipment, operating systems and programs which reflect the access and ownership of the school population so that those unable to obtain the latest technology are not disadvantaged by its wholesale adoption in school.

7.   MONITORING AND REVIEW

The monitoring of the standards of *computing* is the responsibility of the Subject Coordinator and the Leadership Team. The coordinator is also responsible for supporting colleagues in the teaching of *computing*, keeping informed about current developments in the subject and for providing a strategic lead for the direction of the subject in school. The Coordinator regularly discusses progress towards the objectives set out in the subject development plan with the Head or Deputy and provides information on the development of the subject to the Link Governor as required.

9.   EVIDENCE AND PUPILS WORK

9.1   The development and adoption of pupil files on the shared areas of each site means that pupils work is stored centrally and may be viewed for moderation and evaluation purposes by the *Computing* Coordinator and members of the SLT.

9.2   Staff will continue to use paper evidence in the Work Sample books but retain evidence of *computer* focussed work and cross curricular applications in the computer based files.

' Please also be aware of the school's policy on E Safety when reading this document'