Primary Computing Policy - January 2018

Together We
Inspire Enjoy Achieve

Introduction

This policy sets out our school's vision, aims, principles and strategies for the delivery of Computing and the use of technology to support the curriculum. It will form the basis for the development of Computing and the use of technology in the school over the next three years.

The policy was written in the Spring Term 2018. Sections of the text have been drawn together from a variety of sources including the National Curriculum 2014, the Computing at Schools Guide for Primary Teachers and archived BECTA materials.

These have been further developed by The ICT Service, Cambridgeshire.

What is computing?

The National Curriculum Purpose of Study states that:

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 programs, 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 for the future workplace and as active participants in a digital world.

Whilst the Computing Curriculum has an increased focus on Computer Science including developing pupils' programming skills and their understanding of what happens 'behind the scenes', it is important that they also continue to develop their Digital Literacy and e-safety capability and our school curriculum us designed to reflect this.

The School's Computing Curriculum

As a school, we embrace the national vision for Computing and appreciate that, to achieve this, pupils must have access to a curriculum which is 'balanced and broadly based'.

Our aim is to produce learners who are confident, discerning and effective users of technology and who also have a good understanding of computers and how computer systems work, and how they are designed and programmed.

We strive to achieve this aim by:

- supporting all children in using technology with purpose and enjoyment
- Meeting, and building on the minimum requirement set out in the National Curriculum as fully as possible and helping all children to achieve the highest possible standards of achievement

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- Helping all children to develop the underlying skills and capability which is essential to developing Computing capability (such as problem solving, perseverance, learning from mistakes) and apply them elsewhere
- helping all children to develop the necessary skills to exploit the potential of technology and to become autonomous and discerning users
- helping all children to evaluate the benefits and risks of technology, its impact on society and how to manage their use of it safely and respectfully.
- using technology to develop partnerships beyond the school
- celebrating success in the use of technology.

In Godmanchester Bridge Academy, teachers are encouraged to progressively develop pupils' Computing skills and capability through discrete learning opportunities, and also to exploit this capability as a tool to support objectives in other curriculum areas meaningfully. These links include, but are not limited to, the use of a range of digital devices in a wide range of contexts. Both plugged and unplugged learning opportunities are planned to support pupils' understanding of the underlying concepts in Computing. These opportunities may well be presented within other subject areas (e.g. sequencing instructions in English, problems solving in Maths or isolating variables in Science).

In this way Computing and the use of technology become integrated into the curriculum and are used as a truly beneficial tool for learning.

At Key Stages 1 and 2, the planning, organisation and delivery of the Computing curriculum is supported by [Cambridgeshire Progression in Computing Capability Materials and well as Raising Stars Scheme 'Switched On'.](#)

In the EYFS, opportunities for the use of technology are an integral part of each area of learning and the school ensures that children have access to both continuous and enhanced provision. Links are made between the EYFS Early Learning Goals and the Y1 curriculum to ensure a smooth transition takes place.

The [Cambridgeshire Progression in Computing Capability statements](#) are designed to break the curriculum down into possible 'themes' and provide guidance on progression across and between year groups. Using these materials, the school has developed its own flexible scheme of work for Computing which is adapted regularly to allow pupils' capability to be used effectively in other curriculum areas.

At Key Stages 1 and 2 the school's computing curriculum is organised into the following aspects:

- Understanding Technology
- Programming
- Digital Literacy
- E-Safety

These themes are mapped in a long term plan for the whole school, with elements of each theme taught in most terms.

Safeguarding Children: E-Safety

At Godmanchester Bridge Academy we believe that the use of technology in schools brings great benefits. To live, learn and work successfully in an increasingly complex and information-rich society, our children must be able to use technology effectively. The use of these exciting and innovative technology tools in school and at home has been shown to raise educational standards and promote pupil achievement. Yet at the same time we recognise that the use of these technologies can put young people at risk within and outside the school.

The school has developed a separate policy which details our approach to e-safety and safeguarding children and staff when using technology both within and beyond the school. This policy has been developed according to local authority guidance provided at www.ccc-esafety.org.uk. This includes reference to the e-safety 'education' elements of the National Curriculum for Computing. See appendix 1 for details.

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Teaching and Learning Styles

When delivering the National Curriculum for Computing, teachers are expected to employ a range of strategies and to use their professional judgement to decide on the most appropriate teaching and learning style for the class, groups of pupils or individual pupils.

Approaches and strategies used may include:

- An 'unplugged' approach in order to develop their understanding of some of the underlying concepts of Computer Science
- 'Plugged' activities which allow pupils to practise and demonstrate their levels of understanding
- Using presentation technology to demonstrate something to a group of pupils or the whole class
- Leading a group or class discussion about the benefits and risks of technology
- Individual or paired work
- Collaborative group work
- Pupil led demonstrations / peer mentoring. NB - Where one pupil is used to demonstrate or teach a skill to others, the teacher must feel confident that this is of benefit to all those involved.
- Differentiated activities planned to allow different levels of achievement by pupils or to incorporate possibilities for extension work.
- Teacher intervention where appropriate to support a pupil, reinforce an idea, teach a new point or challenge pupils' thinking

Access and Inclusion

Each pupil's access to technology varies greatly dependent on the nature of the activity they are involved in (e.g. some activities benefit from prolonged access to a computer whilst other are best served with brief access to a digital device for a focussed purpose).

The school has the following technology:

- Laptop and iPad trolleys
- iMacs
- Cameras
- Classroom PCs
- Programming equipment

Opportunities to develop and extend Computing capability are provided in other curriculum areas and technology is used to support most other subject areas.

All children have equality of access to appropriate technology in order to develop their personal Computing capability. When children are working in groups, we endeavour to ensure that their hands-on experience is equitable. We check resources, software and documentation to ensure that gender and ethnicity are reflected in a balanced way without stereotyping.

The SENDCO and Computing Subject Leader jointly advise teachers on examples of technology which can be provided to support individual children with particular physical, linguistic and educational needs, including gifted and talented pupils. Where appropriate, an external specialist is used to assess a child's specific needs.

Children with access to technology at home are encouraged to use it for educational benefit and e-safety guidance is offered to both pupils and parents where appropriate. The school has identified those pupils who have limited or no access to appropriate technology outside of school and provide additional opportunities for these pupils to gain access during the school day / after school.

Monitoring

The Computing Subject Leader follows a systematic and regular programme of evaluation and monitoring of the Computing curriculum, across the school.

This is so that they can:

- Check that the full curriculum is being delivered effectively
- Evaluate the success (or otherwise) of curriculum planning and delivery
- Have an awareness of impact and be able to demonstrate progression and attainment
- Have an overview of resource and staff training needs

Monitoring is completed via a variety of methods including:

- Observations
- Collecting and analysing planning
- Work scrutiny
- Gathering information from observations of other subjects
- Pupil interviews / pupils voice
- Staff interviews / feedback

As a result of monitoring, appropriate CPD opportunities are provided for staff on an individual, group and whole school basis in line with the school's wider CPD policy, School Development Plan and Strategic Technology Development Plan.
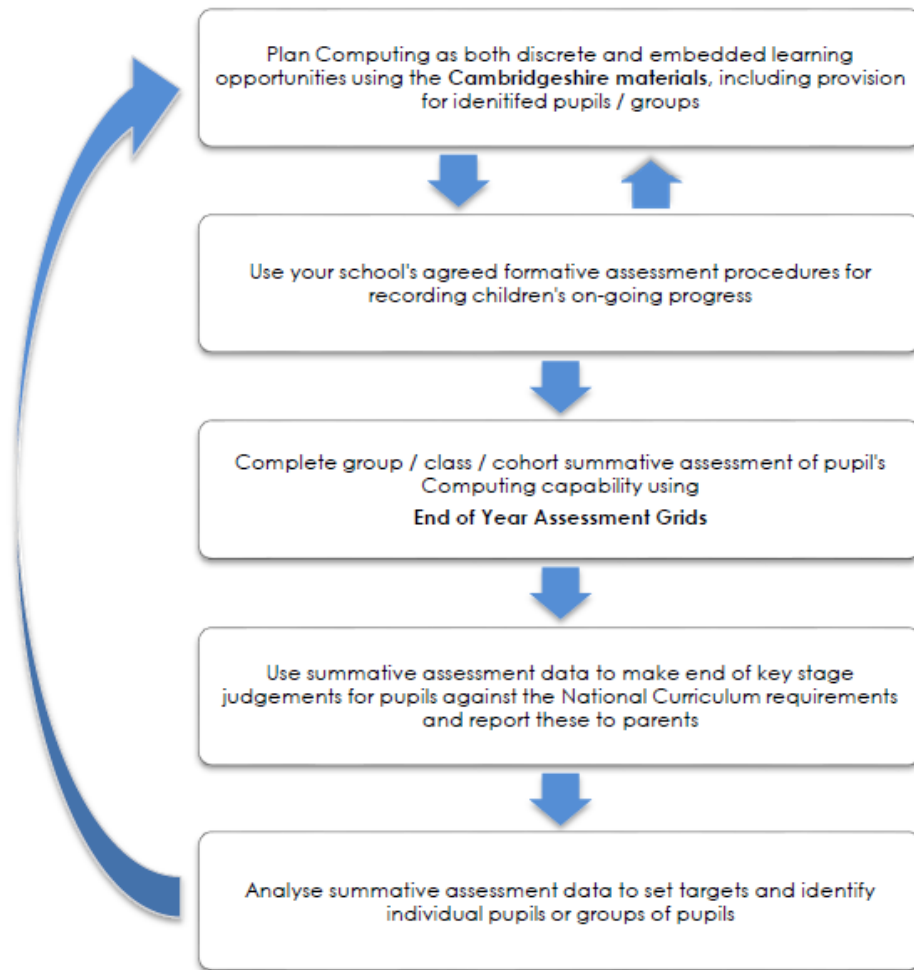
Recording and Assessment

Assessment of the Computing curriculum is carried out in accordance with the advice provided by the Cambridgeshire Progression in Computing Capability Materials. Our approach to assessment of Computing is still developing in line with national and local guidance and this policy will be updated and amended as we continue to clarify our approach.

We (will) ensure that:

- appropriate Assessment for Learning approaches are applied to formative assessment in order to inform future planning
- pupils' achievement and attainment is assessed and recorded on at least an annual basis
- pupils' achievement and attainment is measured against the relevant National Curriculum requirements at the end of each Key Stage and reported according to government guidelines (including statutory requirements for reporting to parents)

The Assessment Process:

Plan Computing as both discrete and embedded learning opportunities using the **Cambridgeshire materials**, including provision for idenitfed pupils / groups

Use your school's agreed formative assessment procedures for recording children's on-going progress

Complete group / class / cohort summative assessment of pupil's Computing capability using
End of Year Assessment Grids

Use summative assessment data to make end of key stage judgements for pupils against the National Curriculum requirements and report these to parents

Analyse summative assessment data to set targets and identify individual pupils or groups of pupils

Roles and Responsibilities

The role and impact of technology stretches beyond the National Curriculum for Computing and it is therefore important to acknowledge the roles and responsibilities held by key people across the school.

The following responsibilities are carried out by the head teacher:

- ensuring the consistent implementation of Computing policy
- overseeing health and safety policy and practice
- resources budget management
- arranging in-service support

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- leading the development and implementation of the school's e-safety policy in line with other Child Protection policies

The following responsibilities are carried out by the Computing Subject Leader:

- presenting exemplary practice in the teaching of Computing
- advising colleagues on planning, delivering and assessing Computing
- monitoring the effective use of technology and giving advice where appropriate
- ensuring progression in Computing
- suggested purchasing plans for hardware and software
- organising Computing resources
- identifying what support / CPD is needed by individual staff / groups of staff / the whole school
- reviewing and revising the Computing policy and other associated documents
- Creation of a school portfolio of evidence
- Co-ordinating and overseeing equipment maintenance

Responsibilities carried out by an ICT Support Technician

All equipment is supported and maintained through a fortnightly visit from a technician who works under the direction of the Computing Subject Leader.

Safe Disposal of Equipment

Government regulations state that any old electrical or electronic equipment must be disposed of in an environmentally responsible way. The regulations which govern this are the Waste Electrical and Electronic Equipment Regulations (WEEE) 2006 and 2013. Schools are therefore required to have a compliant process for disposing of waste electronic and electrical equipment (anything that requires batteries or a plug to operate).

The school acts in accordance with advice gained through the Cambridgeshire Education ICT Advice regarding safe disposal of equipment. In particular, electrical equipment is safely disposed of (and wiped where necessary) through the following company: Green Technologies.

Health and Safety

Both staff and children are aware of the need for health and safety to be kept in mind when using technology. Signs displaying relevant warnings are displayed around the school and regular attention is drawn to the issue of safe use of equipment. In particular, the following safety issues have been considered when using technology in school:

All pupils are taught to handle equipment correctly and to switch computers on and off using the correct procedures. The dangers of electricity are stressed and all of the above are presented so as to ensure the pupils

respect the equipment and respect other people's work on the computer. All users are also reminded of the need to take regular breaks when using electrical equipment.

Copyright

The school takes its rights and responsibilities in relation to copyright seriously and a whole school documents detailing this approach is available.

We refer to the advice provided by the IPO (Intellectual Property Office), CLA (Copyright Licensing Agency) and other organisations to guide us in the appropriate use of materials in school. Schools are allowed limited use of copyright works without permission of the copyright owner, and staff are guided to www.copyrightandschools.org for guidance on specific queries they have around what they can and cannot use.

The school is also aware of the changes in Copyright Law introduced in June 2014 and works within these regulations, especially when using materials digitally. Further information can be found via the IPO's 'teaching exceptions' page.

Policy Details	Date	Name
Policy approved by Senior Management:	March 2016	Rod Warsap
Policy approved by Senior Governor	April 2016	Roger Coxhead
Date of next review:	**March 2018**	

Policy Section: Section 1A – Curriculum Policies (Pupils)

Policy reference: GCA - 1A/ 07 IT

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