

Diocese of Nottingham
...working in partnership with
The Our Lady of Lourdes Catholic Trust

St Philip Neri with St Bede Catholic Voluntary Academy
Policy Document



Computing

Written by:	Approved by:	Approval Date:	Review Date:
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Context

The use of information and communication technology is an integral part of the National Curriculum and is a key skill for everyday life. Computers, tablets, programmable robots, digital and video cameras are a few of the tools that can be used to acquire, organise, store, manipulate, interpret, communicate and present information. At St. Philip Neri with St. Bede Catholic Voluntary Academy, we recognise that pupils are entitled to quality hardware and software and a structured and progressive approach to the learning of the skills needed to enable them to use it effectively. The purpose of this policy is to state how the school intends to make this provision.

At St. Philip Neri with St. Bede, we endeavor to provide all children with rich and deep learning experiences that balance all aspects of computing. We use the Purple Mash scheme of work to provide a basis for our curriculum coverage. For eSafety, we use the Be Internet Legends to provide a basis in Years 3-6 and Purple Mash for Years 1-2.

Purpose

“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.”

(The National Curriculum in England framework document, 2014)





INTENT

The intent for all staff at St Philip Neri with St Bede CVA is to:

- Support the children to **understand** and apply the fundamental principles and concepts of computer science.
- Encourage our children to become **computational thinkers**, solving problems in computational terms and have practical experiences solving problems by writing and debugging code.
- Promote children's ability to **reason** through opportunities to discuss their thinking and understanding in relation to computing.
- Enable our children to **evaluate** and **apply** information technology, including new or unfamiliar technologies.
- Promote our children to be responsible, competent, confident and **creative** users of information and communication technology.

We aim to provide an ambitious and engaging Computing curriculum along with high quality teaching to produce individuals who are computer literate, independent and confident. It is our intent to provide children with a range of different experiences to develop skills in the 3 areas of Computing.

The intent for all staff at St. Philip Neri with St. Bede CVA is for all of our children to have strong computing skills because they:

- can understand and apply the fundamental principles and concepts of computer science, including abstraction, logic, algorithms and data representation
- can 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.

We will know the aims have been met because pupils will:

- know how the impact of computing affects our everyday lives
- use logic, algorithms and data representation and apply these to everyday situations
- be equipped to use technology appropriately
- be inspired to continue learning in order to apply skills learnt in the future





IMPLEMENTATION

As a school, we use the Purple Mash Scheme of Learning. Each strand of the computing curriculum is taught throughout each year group through activities that facilitate the learning across the three strands of computing.

Please see Appendix A for the Computing Progression Document.

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.






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). However, on average, pupils have 1 hour of allocated to Computing each week using a mixture of activities and the following technology:

- Laptops
- iPads
- Computing Suite Windows PCs
- Programming equipment e.g. Beebots.

A typical lesson will include a Starter, which may look at a previously taught skill or recap the foundations of the skill that will be learnt in the current lesson. The teacher will then provide an input, which guides children through the new learning and children will be given an opportunity to put the new skill into practice either via a 'plugged' or 'unplugged' activity.

All work will be marked in line with our *Marking Policy*. In books, work will be RAG rated and, where appropriate, children will be given the opportunity to respond in purple pen.

If work has been completed on Purple Mash, staff will RAG rate using the appropriate coloured star in the comments box.

	File	Progra...	Made ...	Modified	Tags	Comment	Judge...	Rewar...
<input checked="" type="checkbox"/>	 Tio Bowler  Mark	<u>2Code</u>	 Tio Bowler	Sun, 4 Sep 2022 10:48	None	Not handed in. Redo not set  Check 	None	None

Children can then respond to marking by editing any work once they have viewed their comment when reopening to ToDo.



In addition to discrete Computing sessions, opportunities to develop and extend Computing capability are provided in other curriculum areas and technology is used to support 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 SENCo 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 Online Safety guidance is offered to both pupils and parents where appropriate.



IMPACT

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 termly 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).

Role of the subject leader

The subject leader for Computing is Miss Bowler. The subject leader:

- ensures teachers understand the requirements of the National Curriculum and support individuals with lesson planning;
- leads by example by setting high standards in their own teaching;
- prepares, organises and leads Continuing Professional Development and joint professional development – especially lesson study, lesson observations and monitoring activities, with the support of the Headteacher;
- attends CPD provided by the Our Lady of Lourdes Multi-Academy Trust, or Nottinghamshire County Council and other providers;
- keeps parents informed about Computing issues, which may include holding information and training evenings;
- discusses the achievement of pupils in Computing and any identified staff training needs regularly with the Headteacher and link governor;
- monitors and evaluates Computing provision in the school by conducting regular work scrutiny, learning walks, pupil interviews and analysing data.

Continuing Professional Development (CDP)

Leaders and Governors at St. Philip Neri with St. Bede CVA believe that effective teaching is underpinned by providing staff with regular professional development opportunities to ensure their expertise and subject knowledge is always developed and kept contemporary. Regular professional development is always identified by the Senior Leadership Team and Computing subject leader as part of the subject's development plan. Clear and precise professional development, from a range of sources, will ensure:

- the Computing Curriculum is delivered thoroughly and consistently;
- staff subject knowledge is enhanced and up-to-date;
- teachers are confident with using a range of 'plugged' and 'unplugged' resources to support the teaching and learning of abstract concepts;
- Assessment for Learning is consistently strong and is used accurately to identify each child's next step in learning.

See also our *Teaching and Learning Policy*.

