Buntingsdale Primary School
Computing Policy

June 2021

Contents

Rights of the child...

Article 1: Everyone under the age of 18 has all the rights in the convention

Article 16: Every child has the right to privacy. The law should protect the child's private, family and home life, including protecting children from unlawful attacks that harm their reputation.

Article 17: Every child has the right to reliable information from a variety of sources, and governments should encourage the media to provide information that children can understand. Governments must help protect children from materials that could harm them.

Article 28: A good quality education. Should be encouraged to go to school to the highest level they can.

Article 34: Governments must protect children from all forms of sexual abuse and exploitation.

1. Curriculum Statement – Computing

Intent

At Buntingsdale, we understand that computers and other digital devices play a key part in our pupils' lives, Therefore, we want to model and educate our pupils on how to use technology positively, responsibly and safely. We want our pupils to be creators not consumers and our carefully structured curriculum encompassing computer science, information technology and digital literacy reflects this. Staff at Buntingsdale embed computing across the whole curriculum to make learning creative and accessible and it's used regularly to support and enhance learning in STEM subjects. We ensure that our curriculum gives every child the opportunity to become digitally literate so that they are able to express themselves and develop their ideas through information and computer technology – at a level suitable for the future workplace and as active participants in a digital world.

Implementation

We have chosen to implement the Purple Mash Computing Scheme of Work. Computing teaching at Buntingsdale delivers the requirements of the National Curriculum through half-termly units of work that are delivered in one week blocks (in addition to computing being embedded into several other areas of the curriculum where appropriate). Teachers plan by using the Purple Mash mixed-age scheme of work on a 2 year rolling cycle which embodies the knowledge, skills and vocabulary that are essential for each year group. This ensures consistency and progression throughout the school. At Buntingsdale, we recognise that computing is a specialist subject and not all teachers are computing specialists. The Purple Mash scheme of work is a vital tool because not only does it provide clear coverage of the computing curriculum and the resources and software required to implement the desired skills, but it also provides ongoing support and CPD for less confident teachers to deliver engaging and appropriately challenging computing lessons for all pupils. All teachers at Buntingsdale are Purple Mash trained.

Impact

We intend that that impact of the teaching and learning of computing at Buntingsdale ensures children make good progress and attain in-line with or better than national expectations. We strive to ensure that the children are given opportunities to achieve the greater depth standard whilst appropriately supporting those pupils working towards the expected standard. We also hope that the engaging and challenging computing opportunities our pupils experience will develop a life-long love of technology and provide them with a wealth of opportunities in the future.

2. Teaching and Learning

At Buntingsdale, we have chosen to utilise the Purple Mash Computing Scheme of Work from Year 1 to Year 6 (with EYFS using Mini Mash to enhance their curriculum). The scheme of work supports our teachers in delivering fun and engaging lessons which help to raise standards and allow all pupils to achieve to their full potential. We are confident that the scheme of work more than adequately meets the national vision for Computing. It provides immense flexibility, strong cross-curricular links and integrates perfectly with the 2Simple Computing Assessment Tool. Furthermore, it gives excellent supporting material for less confident teachers.

Key Stage 1

In KS1, children will be taught to:

- Understand what algorithms are, how they are implemented as programs on digital devices, and that programs execute by following precise and unambiguous instructions
- Create and debug simple programs
- Use logical reasoning to predict the behaviour of simple programs
- Use technology purposefully to create, organise, store, manipulate and retrieve digital content

- Recognise common uses of information technology beyond school
- Use technology safely and respectfully, keeping personal information private; identify where to go for help and support when they have concerns about content or contact on the internet or other online technologies

Key Stage 2

In KS2, children will be taught to:

- Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts
- Use sequence, selection, and repetition in programs; work with variables and various forms of input and output
- Use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs
- Understand computer networks, including the internet; how they can provide multiple services, such as the world wide web, and the opportunities they offer for communication and collaboration
- Use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content
- Select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information
- Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact

3. Assessment
Pupil attainment in computing is assessed using the 2Simple Computing Assessment Tool for Years 1 to 6 which teachers will update with records of pupil attainment following each unit of work (half termly). The tool enables staff to accurately identify attainment of pupils through the detailed exemplification it has for each key learning intention. Work from a range of classes and abilities is shared using the Display Board feature in Purple Mash. Children are encouraged to self, peer and group assess work in a positive way using online collaborative tools such as 2Blog in Purple Mash. Through using the progression of skills documents and displays from 2Simple, both teachers and pupils can evaluate progress.

4. Planning and Resources
The progressive computing scheme of work from Purple Mash will be taught from years 1-6 on a mixed-age, 2 year rolling cycle and supplemented with resources from companies and organisations such as 'Barefoot Computing', 'iCompute', 'Scratch' and 'Scratch Jr.'

A range of resources are available to staff and pupils which successfully supports the delivery of the computing curriculum and enables all learners to reach their full potential. Resources are suitably maintained and replenished when needed, which is overseen by the computing lead.

- Purple Mash Subscription for all year groups and individual logins for each child in school
- Chrome Books in each classroom (number dependant on number of pupils)
- Shared laptops available to all classes at all times
- iPads shared throughout school
- Programmable toys (such as Beebots)
- Headphones
- USB computer mice

5. Organisation

In Early Years, computing is predominantly covered within the Understanding of the World area of learning, and computers are used to support learning in other areas such as English, maths and art. We aim to provide our pupils with a broad, play-based experience of computing in a range of contexts.

In Key Stage 1 and 2, computing lessons will be explicitly taught in blocks with one unit being delivered each half term. Our Computing curriculum is broken down into three strands that make up the computing curriculum. These are: Computer Science, Information Technology and Digital Literacy. Computer Science underlines the knowledge and skills relating to programming, coding, algorithms and computational thinking, Information Technology underlines the knowledge and skills relating to communication, multimedia and data representation and handling and Digital Literacy underlines the knowledge and skills relating to online safety and technology uses - all of which are covered at Buntingsdale (whether combined or discreetly). Our computing progression model demonstrates the depth of understanding of each topic that children develop by the end of key stage 2.

6. Early Years Foundation Stage
In Early Years, the approach to computing is through cross-curricular learning with an emphasis on hands on experiences. Teaching is through context-based and role play experiences using many resources such as iPads, the interactive whiteboard and Bee Bots. Children also use Purple Mash to access programs on Mini Mash.

7. Key Stage 1 and Key Stage 2
From Year One upwards, we use the Purple Mash mixed-age scheme of work which addresses the statutory aspects of the National Curriculum. Throughout Key Stage 1, children are taught to use technology purposefully to create, organise, store, manipulate and retrieve digital content. In Key Stage 2, children select, use and combine a variety of software on a range of digital devices to design and create a range of programs, systems and content that accomplishes given goals. Children across school are encouraged to use technology where appropriate to support their learning in all subjects and to share their work on relevant platforms.

8. Equal Opportunities
At Buntingsdale, every child will have access to the computing curriculum. All children will have the chance to develop their skills and knowledge and become digitally literate – preparing them for life in an ever-increasing digital world. All children are provided with the same learning opportunities regardless of social class, gender, culture, race, special educational need or disability.

9. Inclusion
At Buntingsdale, we aim to enable all children to achieve to their full potential. This includes children of all abilities, social and cultural backgrounds, those with disabilities and EAL speakers. We place particular emphasis on the flexibility technology brings in allowing pupils to access learning opportunities - particularly pupils with SEN and disabilities. Purple Mash is a particularly useful programme for children with additional needs because not only is it a very visual resource and easy to navigate but it also features the ability for teachers to leave voice comments/instructions on work for children who have specific difficulties with reading. When implementing our computing policy and curriculum, we will seek input from specialist staff as appropriate, including the SENCO and Designated Safeguarding Leads. The computing lead will keep up-to-date with any developments regarding emerging technologies and online safety and how these may impact on pupils with special educational needs.

10. Role of the Subject Leader
It is the responsibility of the computing lead to ensure that computing remains a high priority and that the teaching and learning of digital literacy skills is of a high standard.

In order to do this, the computing lead will:
- Ensure a full range of relevant and effective resources are available to enhance and support learning.
- Ensure assessment systems are in place and being utilised by all teaching staff.
- Maintain overall consistency in standards of Computing across the school.
- Report on computing at specific times of the year to the Governing Body/Head/Staff.
- Audit the needs of the staff in terms of training/CPD.
- Actively support staff with their day-to-day practice.

- Seek out opportunities to inspire staff in developing their practice through modelling and sharing new ideas, approaches and initiatives.
- Attend training and keep abreast with the latest educational technology initiatives and computing.

11. Parents

At Buntingsdale, we actively encourage parent partnership within the computing curriculum. Parents are asked to sign acceptable use policies regarding computing equipment and e-safety. We encourage parents to use technology (SeeSaw, Purple Mash, Spelling Shed, Times Tables Rock Stars, Get Epic, Phonics Play etc.) to support their child's learning. Parents are also able to view their child's work on Purple Mash using the parent portal. If any parents have any specific areas of expertise in computing, we encourage them to come into school to share their skills and knowledge with the children through assemblies and workshops.

This policy will be reviewed by the Governing body

Policy Agreed: June 2021
Policy Review: June 2024