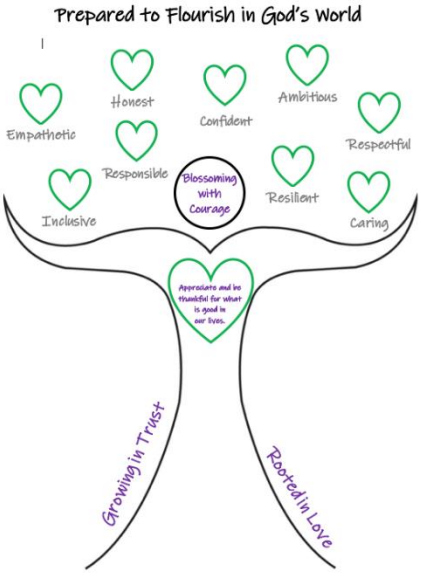
Intent, implementation, and impact Statement: Computing at Burford CofE Primary School

At Burford, we are 'Rooted in love, growing in trust and blossoming with courage, prepared to flourish in God's world.'



The importance of understanding that each of us is rooted in love is not under-estimated at Burford:

'Love always trusts, always hopes, always perseveres.'
Corinthians 13:7

Trusting in love gives us the courage to be ourselves. Courage is from the Latin 'coeur' which means 'To tell the story of who you are with your whole heart'. Our intention is for our pupils to leave Burford prepared for 'Life in all its fullness' and ready to tell their own stories.

Our Christian vision has driven us to create a bespoke curriculum for our pupils that pursues the acquisition of wisdom, knowledge and skills alongside educating for aspiration, dignity, and respect. It is also our intention to nurture a sense of community, so that all members of our school develop a deep sense of belonging, both locally and within the wider world. We believe that these attributes will support our pupils to live well together and flourish, as they move on to High School and beyond.

Our curriculum offer is therefore divided into three focus areas: 'Head, Heart and Hands':

Head – **Rigorous academic study.** Enabling pupils to learn more and remember more, creating a change in long-term memory.
Heart – **Living wholeheartedly.** Choosing our own path, free from stereotyping; being curious, aspirational, confident and resilient.
Hands – **Courageous advocacy.** Developing a greater awareness of the challenge's others face in life and how we can make a difference in our school community, local community and further afield.

At Burford CofE Primary School, we believe that a carefully sequenced curriculum can empower our pupils and reduce social inequality, whilst providing the knowledge they need for the next stage of their education. We view our curriculum as a progression model: the mapped-out journey of concept building leading to a change in long term memory and an increase in knowledge. Through interleaving concepts throughout the curriculum, the children will develop a deep and rich understanding, meaning that the knowledge that is acquired is more likely to be remembered.

Our curriculum sets out WHAT will be learned and WHEN it will be learned.

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CURRICULUM INTENT

Our curriculum sets out: the significant and key knowledge that pupils should know and remember as well as the skills that the children will develop and build on; the key concepts that children will return to in different contexts and year groups; the prior learning that the children can build on; the vocabulary that will be introduced as well as the sequencing and progression of the units to be taught.

The importance of science at Burford School

At Burford we believe 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

What computing looks like in our school:

- The children are taught computing lessons using Purple Mash and are taught on a two-year rolling programme.
- Opportunities to inspire children to explore computing using different skills and programs developed around the world.
- Discrete computing lessons taught using Purple Mash and cross curricular opportunities to develop their skills.
- Children working individually and in groups on different strands of the computing curriculum.
- Exciting and enjoyable practical lessons to engage children and foster their curiosity about computing.
- A progression of the key computing skills used across the school.

Our philosophy:

- We are a passionate team of staff who regularly update our subject knowledge through engaging in Purple Mash CPD and seek support from the subject leader when delivering lessons, we need support with.
- Our high-quality scheme of work educates, engages, inspires and challenges pupils, equipping them with the knowledge and skills to experiment and complete their computing tasks.

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- The delivery of our computing curriculum, along with our whole school values of Love, Trust and Courage, enable our children to develop their skills, understanding and ability.
- We want our children to enjoy their computing curriculum without fear of judgement from their peers.
- Our scheme of work Purple Mash allows pupils to have access to computing at school and at home allowing them to foster a love of the subject.

By the end of EYFS pupils will:

- Children recognise that a range of technology is used in places such as homes and schools. They select and use technology for particular purposes.

By the end of Key Stage 1 pupils will:

- 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

By the end of KS2 pupils will:

- 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

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- 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

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CURRICULUM IMPLEMENTATION

Our curriculum is ambitious for all pupils, regardless of their starting point. We aim for our classrooms to be places of 'high demand – low threat'. We provide support through modelling, paired talk, scaffolding and worked examples rather than highly differentiated activities or sheets. We aim to offer all children the opportunity for stretch and extension, through offering challenging tasks that build on the core learning.

Opportunities to use high quality texts are identified in all curriculum areas. Reading is not only an important skill in its own right but can expose children to new vocabulary as well as provide a richer understanding of a topic which can underpin their new knowledge.

New vocabulary is prioritised frequently and is recorded on our working walls in order to support pupils to become familiar with it and use it in their own work and talk.

We support pupils to know more and remember more through offering frequent opportunities for retrieval practice.

How does it work in computing?

- Computing and internet safety are taught as discrete lessons using Purple Mash showing a progression of skills acquired. The new skills that are acquired then allow the pupils to support their learning across the curriculum.
- All classes celebrate internet safety day to embed our pupils understanding.
- The skills are revisited repeatedly through a range of themes during the children's time in school to ensure the learning is embedded and skills are successfully developed.
- IT, digital literacy and computer science and taught discretely from Y1-Y6.
- In each lesson pupils are exposed to key vocabulary and are asked to recap previous understanding.
- The children work practically either on the computers or creating their own learning.

What do adults do to enable children to flourish in computing?

- Staff are supported to develop strong subject knowledge through yearly CPD delivered by Purple Mash. Additionally, subject leaders seek the support of the subject leader when they need support.
- Digital leaders are appointed from years 4-6 to support staff with any issues they are facing within the computing curriculum and help teach

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younger pupils how to logon to purple mash. They are also responsible for looking after the technology.

- Carry out learning walks to evidence the impact of computing and ensure consistency.

How do we help children who need additional support?

- Class teachers are encouraged to use their extensive knowledge of their pupils, along with each child's pre-unit assessment to anticipate and address any barriers to an individual's learning or their ability to take part in any activity.
- Differentiation through key questioning.
- Limiting barriers to their progression.
- Support through mixed ability pairs and adult support when necessary.
- Additional support is available on Purple Mash for the children to access in an independent way.

How do we challenge children in computing?

- Additional activities to stretch the learning within the lesson and develop further skills or techniques.

How do we ensure all children can access the computing curriculum?

- Seating children alongside good role models to support one another.
- Pupils are given time to explore the programme and are supported when needed.
- Children follow a scheme of work, so they built on the same skills year after year.

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CURRICULUM IMPACT

The impact of children's progress and their ability to know more and remember more will be visible through a range of methods. These may include end of unit assessments or quizzes, hot and cold tasks, spoken responses, progress over time in pupils' books, extended writing or even an end of unit project.

What will you see in computing

- Happy and engaged learners.
- Children completing a range of activities.
- Independence and resilience when facing challenges.
- Children building upon prior knowledge.
- Key vocabulary being explicitly taught.
- Children understanding the importance of the skills they are being taught and how they can be used in day-to-day life.

How do we know how well our pupils are doing in computing?

- Feedback from teachers and peers.
- Feedback from digital leaders.
- Monitoring of progress.
- Access to the pupil's work on Purple Mash.
- Children are enjoying the lesson.
- They can confidently discuss what they learnt and any challenges they faced.
- Children are able to use technology in a safe way understanding how technology works.

What do we do with the assessment data we collect?

- We discuss with the previous teacher the children that are going to need support when carrying out the computing curriculum.

How do we know that our children are flourishing in computing?

- Pupils are enjoying their computing lesson.
- Pupils are retaining what they have learnt.
- The children are able to explain what they have learnt.
- Pupils work well independently and in pairs to develop their understanding and work through a task.
- Pupils are reflective about their learning

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CULTURAL CAPITAL

What is Cultural Capital?

The National Curriculum defines cultural capital as: 'the essential knowledge that pupils need to be educated citizens, introducing them to the best that has been thought and said and helping to engender an appreciation of human creativity and achievement'. This powerful knowledge can be split into two categories: powerful subject knowledge and powerful personal knowledge.

Powerful Subject Knowledge in science

- To name well-known people who contributed to the development of technology.
- To understand how technology is used to enhance our day-to-day lives.

Powerful Personal Knowledge in science

- Extra curricular experiences when they link in with the curriculum.
- Safer internet day to raise the pupils awareness of digital literacy.
- Cross curricular experiences to embed computing skills.

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Other useful information: Suggested Reads

Useful websites:

- https://www.purplemash.com/sch/burford-wr15