



Computing

‘Technology is best when it brings people together’ Matt Mullenweg

In our ever-changing world, we recognise that future generations will rely heavily on their computational understanding, digital abilities and communication skills in an environment which is increasingly being shaped by technology.

We understand and value the importance of teaching computing from a young age. It is our aim to provide a computing curriculum to develop transferable skills that equip our pupils for life in the 21st century.

We want the use of digital technologies to enrich our pupils learning and provide an environment where opportunities can be explored safely and with growing confidence.

The overarching theme for our curriculum is **People & Places** - Understanding the world that we live in and the people who inhabit it. Our school's Core Values are **Considerate, Creative, Motivated, Reflective, Resilient and Respectful**. Our computing curriculum has been planned with these in mind.

Intent

‘The internet is becoming the town square for the global village of tomorrow’ Bill Gates

It is our intention that our pupils become digitally literate and competent users of computing technology but also responsible digital citizens within the wider, global community.

Our Computing curriculum has been developed to equip pupils with the skills and knowledge needed to understand the three core areas of Computing.

The **Computer Science** strand will introduce children of all ages to understanding how computers and networks work. It will also give all children the opportunity to learn basic computer programming. Pupils are **motivated** when designing their own algorithms and programs. If something doesn't work immediately they have to debug their own code- thereby developing a sense of **resilience**. Pupils evaluate their creations against a set of criteria- here pupils **reflect** on what worked well and consider how their code could be improved.

The **Information Technology** strand is about the use of computers for functional purposes. It is about pupils having a sound understanding of a range of digital devices and software and being able to use them confidently and **creatively** to accomplish tasks. Pupils will need to **reflect** on their previous learning and use of IT before making informed decisions on how to best complete tasks set.

The **Digital Literacy** strand focuses on the value of technology as well as the safe and responsible use of technology. Pupils need to understand both the positive and negative impact technology has on society, before making confident and **considerate** choices about how they use it. Online safety is a key element in this strand and provides them with the knowledge and skills to be safe and **respectful** members of the digital community.

As well as a comprehensive program of Online safety lessons planned within the computing curriculum, children will also have the opportunity to spend further time exploring issues associated with online safety in theme days, PSHE and assemblies.



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Implementation

At Berridge, our computing curriculum is adapted primarily from the Teach Computing scheme of work but supplemented with resources from Barefoot computing, Computing at School, Code-IT, STEM and Education for a Connected World.

- Computing is taught in discrete computing lessons by PPA teachers
- Lessons are taught in blocks or units of work- building on previous learning and allowing pupils the opportunities to develop and apply the essential knowledge and skills, mapped out in the computing progression document.
- Each unit of work begins with some recapping of previous learning
- Lessons are practical and interactive even when pupils are not using a digital device in the 'unplugged' lessons.
- Our curriculum ensures that pupils become familiar with both i-pads and laptops and have opportunities to become familiar with other input and output devices.
- Knowledge organisers, are used in lessons to support learning. The knowledge organisers indicate the key knowledge, skills and vocabulary in a unit of work.
- Online safety issues are taught throughout the year in computing lessons and referred to in lessons when digital technology is being used. Online Safety issues are also covered in PSHE, assemblies and on theme days such as safer internet day.
- Online safety rules are displayed in classrooms and referred to regularly
- Where appropriate, further opportunities for using digital technologies are made to the wider curriculum and taught by the class teacher. These cross-curricular links support pupils to make connections and consolidate their learning.

Impact

Our computing curriculum is planned to demonstrate progression and prepare pupils for their digital futures. End of unit assessments are built into the units of work giving opportunities for pupils to demonstrate their learning and apply new skills.

The impact of our computing curriculum is measured in a variety of ways: questioning and discussions during lesson time, talking to pupils about their learning, looking at lesson outcomes and using images/videos of children's practical learning.

We use this evidence to assess against the end of year milestones for computing. These will inform future adaptations to our schemes of work. Leaders ensure the system is rigorous through monitoring and moderation of work, pupil interviews and lesson drop-ins.

By the end of the computing curriculum at Berridge pupils will:

- Be able to use technology confidently for a wide variety of tasks, both at home and school
- Be safe and responsible digital citizens
- Have a secure understanding of the risks of using technology and strategies to stay safe
- Be able to use basic programming software to create their own project work and be able to identify the source of problems and debug them
- Have some understanding of how devices and networks work.