



Overview of Computing at Eastbury Farm Primary School



School Vision:

Children leave Eastbury Farm having been inspired to become confident and successful learners, ready to explore their future as resilient and responsible individuals.

Computing Vision:

Children leave Eastbury Farm Primary School with a holistic, safe and thorough understanding of all strands of computing, which will create a solid foundation on which they can draw to support their success and achievement throughout their lives.

Intent:

Throughout our Herts for Learning Computing curriculum, we plan to inspire children's curiosity and interest to explore the world of computing. We plan to create an understanding in the subject which will enable the children to use computing to benefit them throughout their lives. We intend to equip children with Computing skills to develop their knowledge through studying the five strands of the curriculum. They will independently tackle problems that will challenge them and stretch their learning.

We want our children to develop a mastery of the following **skills**:

- To select and use different digital applications on a range of digital devices to create, organise, manipulate, store, retrieve, review and present varied digital content (word-based, still and moving image, sound etc.) for specific purposes.
- To become discerning, safe and responsible users of online technologies, following e-safety guidance and recommendations.
- To collect, organise, evaluate and analyse data to present as information.
- To develop an understanding of networks and systems
- To develop an understanding of programming in the context of devices, automated systems, simulations and games.
- To become safe, effective and respectful users of technology and online systems, recognising both acceptable and unacceptable behaviour and knowing how to respond when they have concerns.

We want our children to develop their **knowledge of digital literacy, information technology and computer science** through the five computing strands:

- create
- digital technology
- eworlds
- info..info.
- digital communication

Through the specific study of:

Cycle A

In Year 1.2

Computing Systems & Networks:
Technology Around Us
Creating Media: Digital Literacy
Programming A: Robot Algorithms
Data & Information: Grouping Data
Creating Media: Digital Music

Cycle B

In Year 1.2

Computing Systems & Networks:
Information Technology Around Us
Creating Media: Digital Painting
Programming A: Moving a Robot
Data & Information: Pictograms
Creating Media: Digital Writing

Implementation:

How do we help children build computing knowledge and skills into their long-term memory?

What is our teaching approach to delivering Computing?

Throughout their time with us, the children will build upon and develop their computational skills progressively through a variety of different topics. At the beginning of each unit each class will experience a 'Wow Day/Moment' which will bring the topic alive. This encourages the children to be inquisitive about their topic, to pose questions, seek answers, find out more and become lifelong users of computing technologies. Adults delivering the topics are encouraged to consider opportunities to widen the children's experience of computer science across the curriculum. Where appropriate, members of the wider community are invited in to school to share their computing expertise/knowledge with the children. This enables children to base their learning on first hand experiences and makes learning meaningful and relevant.

Our Teaching/Learning Sequence:

Inspire

- Immerse the children in the subject/new learning theme and excite them about the unit ahead to make the learning more meaningful and relevant
- Find out what the children already know about the subject and how this links to what have they learnt in previous units
- Encourage the children to be curious and want to question and find out new information
- Link to other interesting areas of the curriculum so that their digital literacy can be enhanced.



Enquiry

- Encourage the children to be curious, inspired and fascinated by the new topic
- Teach the skills children need to help them find out more about the unit. This could be building on previous learning
- Develop the children's knowledge and understanding, working both independently and collaboratively.
- Encouraging tinkering and exploration of technology and programs to grow confidence and familiarity.



Apply Skills

- Children will use the taught skills and information technology to help them develop and deepen their understanding of computing as a science drawing together knowledge from the five strands.
- Children will acquire the skills so they can select appropriate digital applications and programmes to create, organise, manipulate, store, retrieve, review and present content digitally on a range of devices..
- They will learn how to apply their computing skills in real life situations.

Impact:

Children will have developed computing knowledge and skills through the five computing strands, to help them explore, navigate and understand the digital world around them and how to gain the most from the science of computing.

Children's knowledge and skills will develop progressively as they move through the school, not only to enable them to meet the requirements of the National Curriculum but to prepare them to excel in digital literacy and be competent users of information technology throughout their education and lives.

This will be evidenced through continuous monitoring carried out by the Subject Leader through:

- Learning Walks
- Pupil Voice
- Work Scrutiny

<p>Programming B: Programming Quizzes</p> <p>In Year 3.4</p> <p>Computing Systems & Networks: Connecting Computers</p> <p>Creating Media: Audio Production</p> <p>Programming A: Sequencing</p> <p>Data & Information: Datalogging</p> <p>Creating Media: Desktop Publishing</p> <p>Programming B: Events & Actions in Programming</p> <p>In Year 5.6</p> <p>Computing Systems & Networks: Systems & Searching</p> <p>Creating Media: Webpage Creation</p> <p>Programming A: Variables in Games</p> <p>Data & Information: Introduction to Spreadsheets</p> <p>Creating Media: 3D Modelling</p> <p>Programming B: Sensing Movement</p>	<p>Programming B: Programming Animations</p> <p>In Year 3.4</p> <p>Computing Systems & Networks: The Internet</p> <p>Creating Media: Stop-frame Animation</p> <p>Programming B: Repetition in Shapes</p> <p>Data & Information: Branching Database</p> <p>Creating media: Photo Editing</p> <p>Programming A: Repetition in Games</p> <p>In Year 5.6</p> <p>Computing Systems & Networks: Communication & Collaboration</p> <p>Creating Media: Video Production</p> <p>Programming B: Selection in Quizzes</p> <p>Data & Information: Flat-file Databases</p> <p>Creating Media: Introduction to Vector Graphics</p> <p>Programming A: Selection in Physical Computing</p>	<p>Connect it all Together</p> <ul style="list-style-type: none"> •The children will bring together the new knowledge and understanding that has been gained throughout the unit so that they are able to confidently talk about their learning. •This knowledge will link to existing knowledge and understanding. <p>Concluding</p> <ul style="list-style-type: none"> •The children will have learnt new knowledge and skills through the unit that has built on previous learning. •Children can apply their learning and understanding of digital literacy to produce work that achieves their learning objective •The children have been excited, engaged and curious to learn about digital literacy, information technology and computer science and their place in the wider world. 	<ul style="list-style-type: none"> •Planning Scrutiny (that is progressive and builds upon children's existing skills and knowledge)
<p>We want our children to develop a:</p> <ul style="list-style-type: none"> • high level of digital literacy so that they are safe, competent and creative users of technology. This is achieved by building essential understanding and skills through investigating, selecting and using a range of applications on different devices and platforms. <p>We want our curriculum to :</p> <ul style="list-style-type: none"> • inspire children to become productive creators and designers of technology, by introducing the essential aspects of computer science in a way which blends with the ethos and learning approaches of the primary phase. 			

Subject Leader Expectations:

- 1hr per week in KS1 and KS2 taught as a minimum
- KS2 Computing lessons taught by a Computing specialist
- Early Years pupils should be given daily access to computing resources during independent learning time linking to the key objectives of the curriculum
- All planning should be taken from Teach Computing NCCE Units of Work and should be written in line with the theme guides
- Cross-curricular links are developed wherever possible, particularly in English and Mathematics to support all areas of the curriculum
- E-Safety to be explicitly taught throughout the year and is part of the curriculum and taught at all stages
- Where possible, skills should be taught through coding investigation and include 'unplugged' activities – at least two sessions per unit of work
- Planning to show evidence of progression for all pupils
- Clear adaptations to be evident for all learners
- Planning to show evidence of AfL such as assessing prior knowledge, use of learning partners, peer and self-assessment
- Pupils are able to log onto a Chromebook using their login details
- Assessment of pupils' progress is carried out by completing an assessment task for the class. The children should be levelled based upon this assessment. Supporting work should be included in the class file or saved in the pupil work folder on the shard drive
- At the end of each unit, teachers should assess children into these categories: on track to be pre key stage, on track to be WTS, on track to be EXS, on track to be GDS based on their performance throughout the unit
- Laptops, Chromebooks, iPads and small technology resources are used to enhance teaching and learning
- Class teachers to inform Computing SL when resources are missing or stock needs replenishing
- Staff to ensure they take responsibility of electronic resources are returned to the main charge point
- Pupils are reminded regularly that they are to use all Computing equipment with care