



Computing Curriculum Statement

Intent

The National Curriculum for Computing aims to ensure that all pupils:

- 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

Here at Beechwood Primary School, we aim high for brighter futures. We work hard to raise the aspirations of our children and to provide good opportunities for their future prospects. Our pupils will see the digital world as part of their world, extending beyond school, and develop skills to move to secondary school leading safe digital lives. We aspire for Computing to be incorporated throughout all areas of the curriculum ensuring that our children become digitally literate and are able to develop their ideas in a way that will enable them to become successful digital citizens in primary school, secondary school and in the future workplace.

Implementation

At Beechwood we know that there is more to the computing curriculum than purely being on a computer – being able to programme, de-bug, design and many other elements require careful planning before they are tested out on a computer system. This is why when you see computing in action in our school the majority of the lessons will either be in our ICT suit or our class ipads but some will also be through pen and paper. We know that tablets are the future and we provide as many opportunities as possible for the children to rehearse their skills to ensure they are ready for the world of technology they will grow up in to. Within computing the children will get the opportunity to; **explore** their own learning using research and enquiry, **discover** new skills and learning through hands on experience and **achieve** when they bring all their learning together to showcase their understanding.

In EYFS we incorporate Barefoot Computing into our achieving Early Learning goals and developing “computational thinking”. Years 1 to 6 follow the NCCE Teach Computing Scheme which aspires for every child in every school in England to have a world-leading computing education. Learning computing will be enjoyed across the school. Teachers will have high expectations of the learning outcomes of all pupils and quality evidence will be presented in various forms. Pupils will use digital and technological vocabulary accurately, alongside a progression of their technical skills. They will be confident using a range of hardware and software. We acknowledge the digital world that we are all a part of and prioritise teaching of online safety across the school, using Project Evolve. Termly, each class will identify the leaning needs of the pupils

against the school wide online safety topics, teach them accordingly and subsequently assess their learning. Where appropriate Project Evolve topics is taught alongside our PSHE Jigsaw Scheme, enabling us to ensure children practice their skills and knowledge in a variety of contexts.

Equity of implementation– At Beechwood we recognise that all children learn differently and all children have different strengths. A well rounded curriculum ensures that every one gets their chance to shine. We use a range of strategies to ensure all children are included with our curriculum some of these being; widgets to scaffold oracy and writing, use of ipads / laptops to support writing, pictures to support key vocabulary being used, learning logs to remind the children of the previous learning which will support them a lots of child centred learning to full immerse them in their new skills and knowledge

School Vision

Explore, Discover, Achieve

Explore – Our aim is for our computing curriculum to inspire our pupils to be curious, developing life skills of resilience and perseverance. During lessons children explore various aspects of computing, including how systems and processes operate in the real world. In programming, they are given freedom to create and develop their own concepts and will learn how to use technology to create media.

Discover – Our pupils will develop a strong foundation in all aspects of computing, which will enable them to continue to build on their learning in secondary school and beyond. Opportunities to link their computing lessons to other areas of the curriculum will be utilised to ensure they are practising their skills in different contexts and realising the purpose of their computing knowledge and skills.

Achieve – The computing curriculum provides our pupils with opportunity to experience success and feel pride in what they have achieved.

Curriculum coverage

Subject		Computing				
Year Group	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
EYFS	The most relevant statements for computing are taken from the following areas of learning: • Personal, Social and Emotional Development • Physical Development • Expressive Arts and Design					
	Reception	Personal, Social and Emotional Development		Show resilience and perseverance in the face of a challenge. • Know and talk about the different factors that support their overall health and wellbeing: - sensible amounts of 'screen time'		
		Physical Development		• Develop their small motor skills so that they can use a range of tools competently, safely and confidently.		
		Expressive Arts and Design		Explore, use and refine a variety of artistic effects to express their ideas and feelings.		
	ELG	Personal, Social and Emotional Development	Managing Self		Be confident to try new activities and show independence, resilience and perseverance in the face of challenge. • Explain the reasons for rules, know right from wrong and try to behave accordingly	
Expressive Arts and Design		Creating with Materials		Safely use and explore a variety of materials, tools and techniques, experimenting with colour, design, texture, form and function.		

Year 1	Using Simple Programmes	Using a computer safely	Using programmes	Using the keyboard	Find out Information	Coding
Year 2	Computing systems and networks. (IT around us)	Creating media – Digital photography (www.pixlr.com)	Programming Robot algorithms (Beebots)	Data and information & effective use of tools Pictograms (https://www.j2e.com/jit5#pictogram)	Creating Media Making Music (https://musiclab.chromeexperiments.com/Song-Maker/)	Programming An introduction to quizzes (Scratch JR)
Year 3	Computing systems and networks Connecting Computers (offline)	Programming Sequences in music (Scratch)	Creating Media Desktop publishing (Publisher)	Data and information Branching databases (https://www.j2e.com/jit5#branch)	Creating media animation (imotion app apple stop motion studio android) Pivot online	Programming Events and actions (Scratch)
Year 4	Networks – The internet (web browsers)	Creating Media Audio editing (Audacity)	Programming Repetition in shapes (FMS Logo fmslogo.sourceforge.net or https://turtleacademy.com/playground)	Data and information: Data logging (Data loggers) Microbits – temp/light sensor Micropet (sensors (lights/sound))	Creative Media and effective use of tools Photo editing (Paint.net)	Programming Repetition in games (Scratch)
Year 5	Computer systems and networks Sharing information	Creating media Video editing (Movie maker / imovie)	Programming and Computer Science Selection in Physical Computing (Microbit)	Data and information Flat-file databases (https://www.j2e.com/database/)	Creative Media and effective use of tools Vector drawing (MS Publisher)	Programming Selection in quizzes (Scratch)
Year 6	Creating Media 3D modelling (https://www.tinkercad.com/)	Programming Variables in games (Scratch)	Data and information Introduction to spreadsheets (MS Excel)	Creating Media and design and development Webpage development	Programming Sensing (Microbits)	Effective use of tools and networks Communication

Project Evolve Yearly Planner

	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Jigsaw	Being me in my World	Celebrating Differences	Dreams & Goals	Healthy Me	Relationships	Changing Me

Project Evolve	Online Relationships & Online Reputation	Online Bullying	Managing Online Information	Health, Well-being & Lifestyles	Copyright & Ownership	Self-Image & Identity
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Impact

By the time children leave us they will:

- Understand the importance of, and know how to stay safe online.
- Know how computer systems work and how systems are connected, linked to “real world” examples.
- They will know how to programme various software to produce a given outcome.
- Understand how to store information securely and acknowledge copyright.
- Be able to use various tools effectively, such as Microsoft Office and a multitude of other software applications.
- Create websites and other digital media.
- Take responsibility for their actions.
- Have built skill sin resilience and perseverance.
- Know how it feels to be successful in computing.

We continuously assess the implementation and impact of our Computing curriculum in order to achieve the highest outcomes possible across all year groups and ensure we provide the support that is necessary for all children to achieve. This is done in computing lessons through a mixture of formative and summative assessment against the lesson or unit objectives.