Bacton Primary School

Computing

Intent

At Bacton Primary School, we believe that every child has the right to a broad, balanced and ambitious curriculum that enables them to achieve their full potential. We recognise that technology is an essential part of modern life and are committed to providing pupils with the skills, knowledge and confidence they need to become successful learners and responsible digital citizens.

Through our Computing curriculum, we aim to inspire curiosity, creativity and resilience while preparing children for an ever-changing technological world. We understand that technology can enhance learning across all curriculum areas by promoting collaboration, increasing engagement, providing access to rich learning experiences and supporting pupils with a wide range of needs and abilities.

Our Computing curriculum aims to:

- Provide an exciting, engaging, relevant and challenging Computing education for all pupils.
- Develop children's confidence and capability in using technology effectively and safely throughout their lives.
- Give pupils access to a range of high-quality digital resources, software, hardware and unplugged learning opportunities.
- Encourage children to become reflective, resilient learners who approach challenges with a positive 'can do' attitude.
- Equip pupils with the knowledge and understanding of how information is created, stored, shared and protected in the digital world.
- Teach children to become responsible, respectful and competent users of technology and online platforms.
- Develop pupils' understanding of online safety, enabling them to make informed choices and minimise risks to themselves and others.
- Foster creativity and innovation through opportunities to design, create and evaluate digital content.
- Promote computational thinking and problem-solving skills that can be applied across the wider curriculum and in everyday life.
- Use technology to strengthen communication and partnerships between home and school.
- Support all pupils in becoming digitally literate citizens who are prepared for the opportunities and challenges of the future.

At Bacton Primary School, we strive to create a safe, inclusive and inspiring learning environment where technology is used purposefully to enhance learning, broaden experiences and help every child succeed both academically and personally. Through high-quality teaching and meaningful experiences, we aim to equip our pupils with the skills and knowledge they need to flourish in an increasingly digital world.

Implementation

At Bacton Primary School, we deliver a progressive and engaging Computing curriculum through the **Teach Computing Curriculum**, developed by the National Centre for Computing Education. This curriculum has been carefully designed by subject experts and is based on current educational research and best practice. It provides a clear progression of knowledge and skills, ensuring that pupils build on prior learning and develop confidence in all areas of Computing.

The Teach Computing Curriculum supports our teachers in delivering high-quality, engaging lessons that enable all pupils to achieve their full potential. Lessons are carefully sequenced to develop pupils' understanding of computer science, information technology and digital literacy, while also providing meaningful opportunities to apply these skills across the wider curriculum. Strong cross-curricular links help children recognise the relevance of Computing within everyday life and other areas of learning.

As part of our commitment to developing responsible digital citizens, we use Project Evolve throughout the school to support the teaching of online safety and digital literacy. Through age-appropriate lessons and discussions, pupils learn how to use technology safely, respectfully and responsibly. They develop an understanding of online risks and are equipped with the knowledge and skills needed to make informed decisions to protect themselves and others when using digital technologies.

Children are provided with opportunities to develop practical computing skills through the use of a range of software and digital tools, including Microsoft Word, Excel, PowerPoint and Publisher. These experiences enable pupils to create, communicate, organise information and present their learning effectively using technology.

Online safety is further reinforced through our participation in Safer Internet Day each year, alongside regular e-safety lessons and assemblies. This helps to ensure that pupils understand the importance of staying safe online and are aware of how to seek support if they encounter any concerns.

Through high-quality teaching, carefully planned learning experiences and access to a range of technology, Bacton Primary School ensures that all pupils develop the confidence, creativity and digital skills necessary to succeed in an increasingly technological world.

Assessment and Evidence

At Bacton Primary School, pupils' learning in Computing is evidenced and assessed through a range of methods that showcase their knowledge, skills and understanding. Teachers gather evidence by taking appropriate photographs of completed worksheets, practical activities and work produced using laptops,

iPads and other digital technologies. Digital outcomes, including coding projects, presentations, documents and multimedia work, are also saved and reviewed as part of the assessment process.

To ensure progression and provide a clear record of learning, each unit is documented in a dedicated PowerPoint evidence portfolio. This portfolio includes:

- A cover slide outlining the unit title and key vocabulary.
- One slide per lesson.
- The date of the lesson.
- The Learning Objective (L.O.).
- Success Criteria.
- Photographic evidence of learning and outcomes.
- Examples of pupils' digital work.
- A record of any pupils absent from the lesson.
- Identification of pupils who have not yet met the expected standard.
- Assessment statements showing progress within the lesson:

All children can...Most children can...Some children can...

These evidence portfolios provide a clear overview of pupil progress, curriculum coverage and the development of Computing skills across the school. They enable teachers to assess learning effectively, identify next steps and celebrate pupil achievement while ensuring consistency in monitoring and assessment throughout the Computing curriculum. Through this approach, we maintain a comprehensive record of learning that demonstrates both pupil engagement and progression over time.

Assessment

For guidance on assessment and the expectations for Met and Not Met, please see the 'rubric' document for each unit on the Teach Computing website.

Sticky Knowledge

For the sticky knowledge quizzes, you may want to ask the children to define new subject-specific vocabulary.

Computing				
	Computing systems and networks	**Coding/ Programming**	**Data and information**	**Creating media**
Early Years (Early Learning Goal)	We aim to provide our pupils with a broad, play-based experience of Computing in a range of contexts. We believe the following: • Early Years learning environments should feature ICT scenarios based on experience in the real world, such as in role play. • Pupils gain confidence, control and language skills through opportunities to 'paint' on the interactive board/devices or control remotely operated toys. • Outdoor exploration is an important aspect, supported by ICT toys such as metal detectors, controllable traffic lights and walkie-talkie sets • Recording devices can support children to develop their communication skills. This is especially useful for children who have English as an additional language.			
Key stage One National curriculum expectations Pupils should be taught to:	• 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.	• 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;	

Computing				
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Key stage Two National curriculum expectations Pupils should be taught to:	• 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. • use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact.	• 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;	• 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;	

Spiral curriculum

The units for Key Stages 1 and 2 are based on a spiral curriculum. This means that each of the themes is revisited regularly (at least once in each year group), and pupils revisit each theme through a new unit that consolidates and builds on prior learning within that theme. This style of curriculum design reduces the amount of knowledge lost through forgetting, as topics are revisited yearly.

Long term plan

National Curriculum Coverage

National Curriculum Coverage – Key Stage 1 Computing Curriculum	1.1 Technology around us	1.2 Digital painting	1.3 Moving a robot	1.4 Grouping data	1.5 Digital writing	1.6 Programming animations	2.1 Information technology around us	2.2 Digital photography	2.3 Robot algorithims	2.4 Pictograms	2.5 Making music	2.6 Programming quizzes
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	✓				✓	✓	✓			✓		

National Curriculum Coverage — Years 3 and 4	3.1 Connecting computers	3.2 Stop-frame animation	3.3 Sequencing sounds	3.4 Branching databases	3.5 Desktop publishing	3.6 Events and actions in programs	4.1 The Internet	4.2 Audio editing	4.3 Repetition in shapes	4.4 Data logging	4.5 Photo editing	4.6 Repetition in games
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							✓	✓			✓	

National Curriculum Coverage — Years 5 and 6	5.1 Sharing information	5.2 Video editimg	5.3 Selection in physical computing	5.4 Flat-file databases	5.5 Vector drawing	5.6 Selection in quizzes	6.1 Internet communication	6.2 Webpage creation	6.3 Variables in games	6.4 Introduction to spreadsheets	6.5 3D modelling	6.6 Sensing
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	✓	✓						✓	✓		✓	

Each unit has a medium term plan and a set of resourced short term plans to ensure consistency and progression of skills and knowledge.

Impact

Learning in computing will be enjoyed across the school. Teachers will have high expectations and quality evidence will be presented in a variety of forms. Children will use digital and technological vocabulary accurately, alongside a progression in their technical skills. They will be confident using a range of hardware and software. Children will see the digital world as part of their world, extending beyond school, and understand that they have choices to make. They will be confident and respectful digital citizens going on to lead happy and healthy digital lives and know how to recognise and report online safety concerns. Pupil progress will be assessed formatively through assessment opportunities in every lesson.

British Values in Computing

Democracy	The Rule of Law	Individual Liberty	Mutual Respect	Tolerance of those of different faiths and beliefs
In computing we are learning to understand and be considerate to the views of other internet users. We understand that we are each part of the democracy of the internet and that we can each, in our own small way, affect the way the internet exists.	In computing we understand the use of rules on computers and the internet, such as when we are allowed to use social media and what we are allowed to post and share. We understand that rules are to keep others and ourselves safe and to help the internet to be an enjoyable and engaging place.	In computing we understand how to use our right to freedom of speech in a respectable and thoughtful way, being considerate of how this speech will affect others. We understand the freedom the internet and computers offer us in discovering information and connecting us with the world.	In computing we appreciate and understand the views of others, our right to challenge, question and discuss opinions and views, and to do this in a respectable and thoughtful way. We understand that as we are connected with the world while accessing the internet, we are exposed to the widest range of views, and we are learning to respect them.	In computing we understand that we are connected to people across the whole world. We understand that these are people from different communities, cultures, faiths and beliefs. We use the opportunities offered in computing to question, challenge and understand people with these different characteristics to support and develop our tolerance of them.