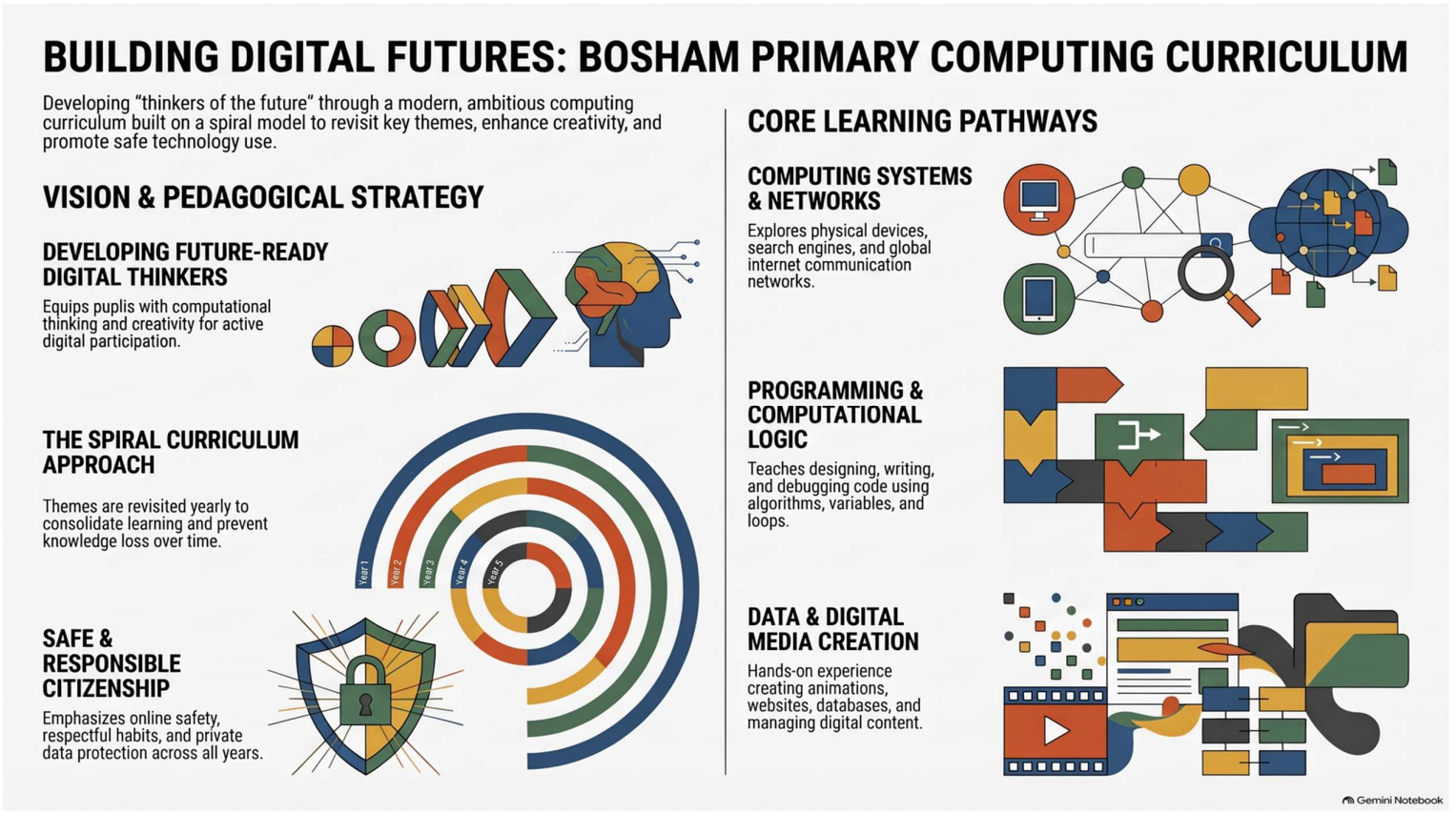


Computing at Bosham Primary School intends to develop 'thinkers of the future' through a modern, ambitious and relevant education in computing. We want to equip pupils to use computational thinking and creativity that will enable them to become active participants in the digital world. It is important to us that the children understand how to use the ever-changing technology to express themselves, as tools for learning and as a means to drive their generation forward into the future. Whilst ensuring they understand the advantages and disadvantages associated with online experiences, we want children to develop as respectful, responsible and confident users of technology, aware of measures that can be taken to keep themselves and others safe online.

Our aim is to provide a computing curriculum that is designed to balance acquiring a broad and deep knowledge alongside opportunities to apply skills in various digital contexts. 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. It also ensures that connections are made even if different teachers are teaching the units within a theme in consecutive years Beyond teaching computing discreetly, we will give pupils the opportunity to apply and develop what they have learnt across wider learning in the curriculum.

EYFS

Personal, Social & Emotional Development

- Remember rules without needing an adult to remind them.
- 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'.
- Be confident to try new activities and show independence, resilience and perseverance in the face of challenge (**Managing Self**).
- Explain the reasons for rules, know right from wrong and try to behave accordingly (**Managing Self**).

Physical Development

- Match their developing physical skills to tasks and activities in the setting.
- Develop their small motor skills so that they can use a range of tools competently, safely and confidently.

Understanding the World

- Explore how things work.

Expressive Arts and Design

- Explore, use and refine a variety of artistic effects to express their ideas and feelings.

Safely use and explore a variety of materials, tools and techniques, experimenting with colour, design, texture, form and function (**Creating with Materials**).

Key stage 1

Pupils should be taught:

Y1 & Y2

- 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.

Key stage 2

Pupils should be taught:

Y3 &Y4

- 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.

Y5 & Y6

- 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.

	Autumn	Spring	Summer
Reception	• Remember rules without needing an adult to remind them. • Match their developing physical skills to tasks and activities in the setting. • Explore how things work. • 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'. • Develop their small motor skills so that they can use a range of tools competently, safely and confidently. • Explore, use and refine a variety of artistic effects to express their ideas and feelings. **+ Internet Safety Week**	• Be confident to try new activities and show independence, resilience and perseverance in the face of challenge (**Managing Self**). • Explain the reasons for rules, know right from wrong and try to behave accordingly (**Managing Self**). • Safely use and explore a variety of materials, tools and techniques, experimenting with colour, design, texture, form and function (**Creating with Materials**).
Year 1	**Computing Systems & Networks - Technology Around Us (1.1.)** ▪ To use technology purposefully to create, organise, store, manipulate and retrieve digital content. ▪ To recognise common uses of information technology beyond school. 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.	**Programming – Moving a Robot (1.3)** ▪ To understand what algorithms are; how they are implemented as programs on digital devices; and that programs execute by following precise and unambiguous instructions. ▪ To create and debug simple programs. ▪ To use logical reasoning to predict the behaviour of simple programs. ▪ To recognise common uses of information technology beyond school. **+ Internet Safety Week**	**Programming – Animations (1.6)** ▪ To understand what algorithms are; how they are implemented as programs on digital devices; and that programs execute by following precise and unambiguous instructions. ▪ To create and debug simple programs. To use logical reasoning to predict the behaviour of simple programs.
Year 2	**Computing Systems & Networks - Information Technology Around Us (2.1.)** ▪ To use technology purposefully to create, organise, store, manipulate and retrieve digital content. ▪ To recognise common uses of information technology beyond school. ▪ 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.	**Programming – Robot Algorithms (2.3.)** ▪ To understand what algorithms are; how they are implemented as programs on digital devices; and that programs execute by following precise and unambiguous instructions. ▪ To create and debug simple programs. ▪ To use logical reasoning to predict the behaviour of simple programs. ▪ 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. **+ Internet Safety Week**	**Data a & Information - Pictograms (2.4)** ▪ To use technology purposefully to create, organise, store, manipulate and retrieve digital content. ▪ 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.
Year 3	**Computing Systems & Networks - Connecting computers (3.1)**	**Creating Media - Stop-Frame Animation (3.2)** ▪ To 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,	**Programming - Events & Actions in Programs (3.6)** ▪ To design, write and debug programs that accomplish specific goals, including controlling or

	▪ To use sequence, selection, and repetition in programs; work with variables and various forms of input and output ▪ 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. ▪ To 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.	systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information. ▪ To use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact. **+ Internet Safety Week**	simulating physical systems; solve problems by decomposing them into smaller parts. ▪ To use sequence, selection, and repetition in programs; work with variables and various forms of input and output ▪ To use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs. ▪ To 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.
Year 4	**Computing Systems & Networks - The Internet (4.1)** ▪ 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. ▪ To use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content. ▪ To 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. ▪ To use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact.	**Programming - Repetition in Shapes (4.3)** ▪ To design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts. ▪ To use sequence, selection, and repetition in programs; work with variables and various forms of input and output ▪ To use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs. ▪ To 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. ▪ **+ Internet Safety Week**	**Programming - Repetition in Games (4.6)** ▪ To design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts. ▪ To use sequence, selection, and repetition in programs; work with variables and various forms of input and output ▪ To use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs. ▪ To 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.
Year 5	**Computing Systems & Networks – Systems & Searching (5.1)** ▪ To understand computer networks including the internet; how they can provide multiple services,	**Programming - Selection in Physical Computing (5.3)** ▪ To design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts.	**Data & Information - Flat-File Databases (5.4)** ▪ To use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content.

	such as the world wide web; and the opportunities they offer for communication and collaboration. ▪ To 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. ▪ To use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact.	▪ To use sequence, selection, and repetition in programs; work with variables and various forms of input and output ▪ To use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs. ▪ To 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. **+ Internet Safety Week**	▪ To 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.
Year 6	**Computing Systems & Networks – Internet Communication (6.1)** ▪ To design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts. ▪ 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. ▪ To 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.	**Digital Media - Web Page creation (6.2)** ▪ To use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content. ▪ To 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. ▪ To use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact. **+ Internet Safety Week**	**Programming - Variables in games (6.3)** ▪ To design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts. ▪ To use sequence, selection, and repetition in programs; work with variables and various forms of input and output ▪ To use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs. ▪ To 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. ▪ To use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact.