



Inspiring children to love learning and live in  
the light of Christ

## **Computing Curriculum**

# Computing

## Intent

Through the study of Computing, children will recognise technology is a part of everyday life. We intend to encourage a thirst for knowledge and digital curiosity so that they can enjoy the wonders of technology and explore the benefits it can bring to their lives.

We intend to prepare children to be active citizens who can positively contribute to an increasingly exponential society. Our curriculum will enable them to develop a wide range of fundamental skills, knowledge and understanding that will equip them for the rest of their life and prepare them for jobs that have not yet been discovered.

Children will develop a level of responsibility in an era of social media prevalence, by teaching children to use the internet safely and for good purpose in order to protect themselves and others. They will know how and where to access support and guidance.

We intend to ensure National Curriculum coverage through a thorough and robust Computing curriculum, ensuring that there is a clear progression of skills where children can build upon their prior learning.

We believe Computing is a subject that not only stands alone but is an integral part of learning that should be exposed in a range of other subjects so that children can see the purpose and meaning behind these skills.

## Implementation

1. Use of a new scheme of work for the following reasons:
  - a) To ensure a robust and consistent approach to planning and implementation across the key stages.
  - b) The new scheme has planning and resources ready-made for staff with explanations to support subject knowledge and presentations which support lesson delivery.
  - c) The organisation of units and planning is in a format that teachers can follow confidently, ensuring all requirements of the curriculum are covered.
2. New long term planning for each year group which maps out the units of work covered with clear evidence of progression through the skills.
3. Use of software provides children with the opportunity to use and apply the skills they have developed throughout the year, with opportunities for cross-curricular links children will recognise that Computing skills have purpose and meaning.
4. Providing teachers with the necessary tools to deliver the curriculum including physical resources and CPD.

Children in Early Years provision will be exposed to the understanding of internet safety as they explore the world around them and how technology is an everyday part of their learning and understanding of the world. The learning environment will feature ICT scenarios based on experience in the real world, such as in role play. Children will explore and 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 where ICT toys will be incorporated into the learning. Recording devices will be used to develop communication skills.

In Key Stage One, the children will learn to understand what algorithms are; how they are implemented as programs on digital devices; and that programs execute by following precise and unambiguous instructions. They will be taught to create and debug simple programs and use logical reasoning to predict the behaviour of simple programs. They will be shown how to use a range of technology purposefully to create, organise, store, manipulate and retrieve digital content as well as recognise common uses of information technology beyond school. They will 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. Each of these skills will be taught through exciting half termly units.

In Key Stage Two, the children will design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts. They will use sequence, selection, and repetition in programs, use logical reasoning to explain how some simple algorithms work and correct errors in algorithms and programs. Children will be taught to understand computer networks, including the internet, and the opportunities they offer for communication and collaboration. They will use search technologies effectively, learn to appreciate how results are selected and ranked, and be discerning in evaluating digital content. Children will be taught to select, use and combine a variety of software (including internet services) on a range of digital devices to create a range of programs, systems and content that accomplish given goals. They will use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact.



## Curriculum Overview and Skills Progression

Please see our separate Progression documents

	Autumn 1		Autumn 2		Spring 1		Spring 2		Summer 1		Summer 2		Total Hours
Year 1	Unit 1.2 Online Safety	4	Unit 1.3 Pictograms	3	Unit 1.9 Technology outside school	2	Unit 1.2 Grouping and Sorting	2	Unit 1.6 Animated Story Books	5	Unit 1.7 Coding	6	22
	Time should be given to learning how to log on to the computers using their own log in details (supplied). This is a <a href="#">skillchildren</a> MUST learn as part of their computing Curriculum.												
Year 2	Unit 2.2 Online Safety	3	Unit 2.3 Spreadsheets	4	Unit 2.5 Effective searching	3	Unit 2.6 Creating pictures	5	Unit 2.8 Presenting Ideas	4	Unit 2.1 Coding	6	24
	Lesson 1 BIL Sharp & Alert		Lesson 2 BIL Secure & Kind		Lesson 3 BIL Sharp & Alert		Lesson 4 BIL Secure & Kind		Lesson 5 BIL When in Doubt discuss		Lesson 6 BIL When in Doubt discuss		
By the end of KS1 children Must be logging onto their own computers, using their own log in details. Children should be able to find all letters on a keyboard and basic punctuation (CL, FS, QM, EM). They should also be able to use the enter key to start a new line. Children should be able to use Microsoft word to word process short pieces of work.													
Year 3	Unit <a href="#">3.2 Online Safety</a>	3	Unit 3.4 Touch typing	4	Unit 3.5 Email	6	Unit 3.8 Graphing	3	Unit 3.9 Presenting	5	Unit 3.1 Coding	6	27
	Lesson 1 BIL Sharp & Alert		Lesson 2 BIL Secure & Kind		Lesson 3 BIL Sharp & Alert		Lesson 4 BIL Secure & Kind		Lesson 5 BIL When in Doubt discuss		Lesson 6 BIL When in Doubt discuss		
By the end of Year 3 children should be able to use a keyboard competently. Practise should be given across the curriculum. Children should be introduced to Microsoft <del>Powerpoint</del> as a presenting program													
Year 4	Unit <a href="#">4.2 Online Safety</a>	4	Unit 4.3 Spreadsheets	6	Unit 4.7 Effective search	3	Unit 4.6 Animation	3	Unit 4.5 Logo	4	Unit 4.1 Coding	6	26
	Lesson 7 BIL Be Internet Sharp		Lesson 8 BIL Be Internet Alert		Lesson 9 BIL Be Internet Secure		Lesson 10 BIL Be Internet Kind		Lesson 11 BIL Be Internet Brave		Lesson 12 BIL Be Internet Brave		
By the end of Year 4 Children should be word processing or presenting work on computers regularly. Using <a href="#">ipads</a> for research within lessons and practising their <a href="#">touch typing</a> skills.													
Year 5	Unit <a href="#">5.2 Online Safety</a>	3	Unit 5.8 Word Processing	8	Unit 5.3 Spreadsheets	6	Unit 5.4 Databases	4	Unit 5.5 Game creator	5	Unit 5.1 Coding	6	32
	Lesson 7 BIL Be Internet Sharp		Lesson 8 BIL Be Internet Alert		Lesson 9 BIL Be Internet Secure		Lesson 10 BIL Be Internet Kind		Lesson 11 BIL Be Internet Brave		Lesson 12 BIL Be Internet Brave		
By the end of Year 5 Children should be word processing or presenting work on computers regularly. Using <a href="#">ipads</a> for research within lessons and practising their <a href="#">touch typing</a> skills.													
Year 6	Unit <a href="#">6.2 Online Safety</a>	2	Unit 6.3 Spreadsheets	5	Unit 6.4 Blogging	4	Unit 6.5 Text Adventures	5	Unit 6.6 Networks	3	Unit 6.1 Coding	6	25
	Lesson 7 BIL Be Internet Sharp		Lesson 8 BIL Be Internet Alert		Lesson 9 BIL Be Internet Secure		Lesson 10 BIL Be Internet Kind		Lesson 11 BIL Be Internet Brave		Lesson 12 BIL Be Internet Brave		
By the end of Year 6 Children should be word processing or presenting work on computers regularly. Using <a href="#">ipads</a> for research within lessons and practising their <a href="#">touch typing</a> skills.													

## Impact

After the implementation of this robust computing curriculum, children at St. Mary's will be digitally literate and able to join the rest of the world on its digital platform. They will be equipped, not only with the skills and knowledge to use technology effectively and for their own benefit, but more importantly – safely. The biggest impact we want on our children is that they understand the consequences of using the internet and that they are also aware of how to keep themselves safe online.

As children become more confident in their abilities in Computing, they will become more independent and key life skills such as problem-solving, logical thinking and self-evaluation become second nature.