St Blaise Church of England Primary School

Exploring and achieving as we grow together

Computing scheme of work (from Sep 2025 onwards) -

Christian values underpinning learning: *Together we love and respect. We are creative, we are determined, we are confident, we are kind.*

Intent

The National Curriculum (2014) forms the basis for all subject teaching ensuring continuity and progression in an age related curriculum. In addition, teachers make sure the content is relevant and stimulating by delivering through themes and topics.
Our computing curriculum has been developed because we believe that:

- Technology plays such a significant role in society today; children need to be able to participate safely in this digital world and identify where to go for help and support if they have any concerns.
- Children need to be able to search effectively and evaluate digital content.
- Children can develop their problem solving skills using logical reasoning to explain how simple algorithms work and to investigate and correct errors.
- Children need to understand and experience how technology can be used for communication and collaboration in the wider world.
- Children need to be creators and have the opportunity to express themselves and their ideas using a range of software responsibly.
- Children should be confident to select and use a variety of software to design and create a range of programs and content to accomplish given goals.

Implementation

Computing will be taught weekly and links to class topics should be explored when appropriate. Opportunities for children to use technology across other areas of the curriculum should be planned where possible. It is essential that staff plan to ensure that content and skills are taught and that a progression of skills is evident across year groups. Children will have access to Chromebooks and Ipads so they can experience a range of devices to support the delivery of the Computing curriculum. We will be following the Teach Computing Scheme of work and will use some units/apps from Purple Mash to enhance the teaching and learning of specific areas.

September 2023

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Oak (Reception)

Children of Reception age will receive a broad experience of computing through provision activities, and links within their topics. Children will learn how to use technology safely and responsibly and they will take part in Online Safety Days. The use of appropriate units from Purple Mash will be planned to suit their topics and demonstrate links to the seven areas of learning.

Communication and language	Expressive Arts	Literacy	Mathematics	Physical Development	PSED	Understanding the world
2 Paint a picture 2 Beat 2 Explore 2 Go – this can be used alongside Beebots.	2 Paint a picture 2 Beat 2 Explore Paint Projects	Alphabet Slideshows 2 Create a Story 2 Publish Teach your Monster to Read (app on the ipads).	Number Paint Projects 2 Count A -fish-metic	2 Count	Using an ipad/chromebook safely and confidently, logging in, how to store them, charging etc.	Exploring technology for different purposes, home and school, various jobs etc.

Unit summaries

	Computing systems and networks	Creating media	Programming A	Data and information	Creating media	Programming B
Year 1	**Technology around us** Recognising technology in school and using it responsibly.	**Digital painting** Choosing appropriate tools in a program to create art, and making comparisons with working non-digitally.	**Moving a robot** Writing short algorithms and programs for floor robots, and predicting program outcomes.	**Grouping data** Exploring object labels, then using them to sort and group objects by properties.	**Digital writing** Using a computer to create and format text, before comparing to writing non-digitally.	**Programming animations** Designing and programming the movement of a character on screen to tell stories.
Year 2	**Information technology around us** Identifying IT and how its responsible use improves our world in school and beyond.	**Digital photography** Capturing and changing digital photographs for different purposes.	**Robot algorithms** Creating and debugging programs, and using logical reasoning to make predictions.	**Pictograms** Collecting data in tally charts and using attributes to organise and present data on a computer.	**Digital music** Using a computer as a tool to explore rhythms and melodies, before creating a musical composition.	**Programming quizzes** Designing algorithms and programs that use events to trigger sequences of code to make an interactive quiz.

Unit summaries

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Year 3	**Connecting computers** Identifying that digital devices have inputs, processes, and outputs, and how devices can be connected to make networks	**Stop-frame animation** Capturing and editing digital still images to produce a stop frame animation that tells a story	**Sequencing sounds** Creating sequences in a block-based programming language to make music.	**Branching databases** Building and using branching databases to group objects using yes/no questions.	**Desktop publishing** Creating documents and modifying text, images and page layouts for a specific purpose.	**Events and actions in programs** Writing algorithms and programs that use a range of events to trigger sequences of actions.
Year 4	**The internet** Recognising that the internet is a network of networks including the WWW, and why we should evaluate online content.	**Audio production** Capturing and editing audio to produce a podcast, ensuring that copyright is considered.	**Repetition in shapes** Using a text-based programming language to explore count-controlled loops when drawing shapes.	**Data logging** Recognising how and why data is collected over time, before using data loggers to carry out an investigation,	**Photo editing** Manipulating digital images, and reflecting on the impact of the changes and whether the required purpose is fulfilled,	**Repetition in games** Using a block-based programming language to explore count-controlled and infinite loops when creating a game.

Unit summaries

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Year 5	**Systems and searching** Recognising IT systems in the world and how some can enable searching on the internet.	**Video production** Planning, capturing, and editing video to produce a short film.	**Selection in physical computing** Exploring conditions and selection using a programmable microcontroller.	**Flat-file databases** Using a database to order data and create charts to answer questions.	**Introduction to vector graphics** Creating images in a drawing program by using layers and groups of objects.	**Selection in quizzes** Exploring selection in programming to design and code an interactive quiz.
Year 6	**Communication and collaboration** Exploring how data is transferred by working collaboratively online.	**Webpage creation** Designing and creating webpages, giving consideration to copyright, aesthetics and navigation.	**Variables in games** Exploring variables when designing and coding a game.	**Introduction to spreadsheets** Answering questions by using spreadsheets to organise and calculate data.	**3D modelling** Planning, developing, and evaluation 3D computer models of physical objects.	**Sensing movement** Designing and coding a project that captures inputs from physical devices.

Role of the co-ordinator:

- Celebrate successes
- Collate appropriate evidence over time
- Monitor the standards in the subject to ensure that outcomes are at expected levels
- Provide ongoing support/ signposting