COMPUTING CURRICULUM OVERVIEW FOR PARENTS

OUR SCHOOL VISION

"Striving for excellence together in a caring Christian community."

RESPECT COMPASSION COURAGE

As a Church school, we believe that people grow in mind, body and spirit. Christian values are the foundation of our teaching and our ethos as we strive together for excellence for all. We aim for each member of our school community to fully engage in the great adventure that is Primary education.

Working together, we aim for all of our school community to become:

- successful learners who enjoy learning and exploration, make progress and achieve;
- confident, well-rounded individuals who are able to live safe, healthy and fulfilling lives; and
- responsible citizens with strong moral and social values who make a positive contribution to society.

"I came to give life—life in all its fullness." John 10:10

LIVING OUR VISION THROUGH COMPUTING

Our Computing curriculum helps children become confident, creative and caring digital citizens who work together to solve real problems and improve their communities. Children collaborate on coding projects, group enquiries and multimedia tasks that build teamwork, curiosity and resilience while reflecting our school values of Respect, Compassion and Courage. Through computing they explore digital systems and emerging technologies, learn to make safe choices online and use their skills to contribute positively to school life and beyond. Learning is rooted in real-world contexts so children see how their ideas can have a positive impact on people and the planet.

YEAR GROUP BREAKDOWN

Year 1

Children learn what technology is and practise basic mouse and keyboard skills. They create simple digital artwork, learn how to save their work and give clear step-by-step instructions to move floor robots. They are introduced to who to tell if something online worries them.

Year 2

Children spot technology in everyday places and begin to describe how devices can work together. They collect and present simple information using pictograms and use block-based programming to make short animations, checking that their ideas work.

Year 3

Children explore how devices accept input, process information and produce output, and they begin to understand simple networks. They use Scratch to build sequences that combine movement and sound, design small projects and practise testing and improving their code.

Year 4

Children learn how the internet connects many networks and how to judge if online content is trustworthy. They use sensors or data collection tools to gather measurements over time and develop their programming skills by creating projects that use repetition and simultaneous actions.

Year 5

Children study how systems of devices work together and learn how search tools find and rank information. They produce more polished digital artwork (vector-style), and start using micro:bits to write programs that interact with the real world via sensors.

Year 6

Children deepen their understanding of secure data transfer and online privacy, use spreadsheets for analysis and modelling, and design more complex micro:bit projects that combine sensing, data logging and decision logic. Emphasis is on applying computing to solve real problems.

PROGRESSION

Computing and Networking Systems:

Children move from recognising individual devices (what they do and who to ask for help) to explaining how devices connect and share information (inputs → processing → outputs). By upper key stage 2 they analyse whole systems, understand how search and network services work at a basic level, and consider privacy and service reliability when using online tools.

Programming

Learning starts with giving clear, ordered instructions and using simple block code. As children progress they design, code, test and debug longer programs, use events, loops and concurrency, and then apply these skills to control physical devices (micro:bit). By Year 6 they combine inputs, conditionals and data handling to develop robust solutions.

Digital Creativity and Data

Children begin by creating and saving simple digital drawings and presenting basic data. Progression moves to combining media (sound, images), using sensors and data loggers to capture real measurements, and producing polished digital artefacts such as vector drawings and spreadsheet models to present findings to an audience.

HOW PARENTS CAN SUPPORT

- Encourage conversation: ask children to show and explain one thing they made or learned in computing that week — it reinforces learning and vocabulary.
- Share safe, supervised screen time: explore simple drawing apps together, experiment with safe coding apps (e.g., ScratchJr), or try a guided micro:bit activity.
- Talk about online reliability: practise checking who created a website or image and whether information seems trustworthy; discuss why sources matter.
- Support basic skills at home: encourage correct keyboard posture and simple typing practice, and help children save and organise files.
- Celebrate effort and problem solving: praise persistence when a program needs debugging and ask what changes they tried.
- Use school channels: watch for examples and guidance shared on Parenthub and check Google Classroom for resources to support home practice.

GLOSSARY OF TECHNICAL TERMS

- Algorithm: an ordered set of steps to complete a task (like a recipe).
- Rubric: an assessment guide explaining criteria used to judge children's work.
- Sonar: the school's assessment/recording system used to log unit outcomes and progress.
- Micro:bit: a small programmable device used for physical computing and sensing projects.
- Data logger / sensor: a device that records measurements (temperature, light, sound) over time for later analysis.
- Vector graphics: digital images made from shapes and lines that keep quality when resized.
- AI literacy: age-appropriate understanding of how automated tools (AI) can affect search results and content and how to evaluate AI outputs.
- Scratch / ScratchJr / MakeCode: block-based programming environments used at different ages to teach coding concepts.