



**'God's love shines through us by the work of our hands'**

*let your light shine before others, so that they may see your good works and give glory to your Father in heaven.*  
(Matt. 5:14-16)

We are a church school where education is nourished through the teachings of Jesus Christ, enabling each child to fulfil their potential and which reflects our commitment to academic excellence.

## **Computing**

### **Intent:**

Our aim is to provide a high-quality computing education which enables children to develop and progress their skills. The curriculum will teach children key knowledge about how computers and computer systems work, and how they are designed and programmed. Children will have gained key knowledge and skills in the three main areas of the computing curriculum: computer science (programming and understanding how digital systems work), information technology (using computer systems to store, retrieve and send information) and digital literacy (evaluating digital content and using technology safely and respectfully).

### **Implementation:**

Computing is taught weekly and where possible using a cross curricular approach. This ensures children are able to develop depth in their knowledge and skills within their computing lessons and apply these within other subjects. Teachers use 'Teach Computing', as a starting point for the planning of their computing lessons. It can be adapted to best suit the children and the needs of the class. Knowledge and skills are mapped across each topic and year group to ensure systematic progression.

We have access to a class set of iPads, and the use of laptops 1 between 2. Microbits and LegoWeDo are other resources the children have access to within their computing lessons. This ensures that all year groups have the opportunity to use a range of devices and programs for many purposes across the wider curriculum, as well as in discrete computing lessons. Employing cross-curricular links motivates pupils and supports them to make connections and remember the steps they have been taught.

The implementation of the curriculum also ensures a balanced coverage of computer science, information technology and digital literacy. The children will have experiences of all three strands in each year group, but the subject knowledge imparted becomes increasingly specific and in depth, with more complex skills being taught, thus ensuring that learning is built upon.

**Impact:**

Our approach to the curriculum results in a fun, engaging, and high-quality computing education. Children will more often than not work in partners for computing to enable them to collaborate and challenge each other's thinking. This supports varied paces of learning and ensures all pupils make progress. Much of the subject-specific knowledge developed in our computing lessons equip pupils with experiences which will benefit them in secondary school, further education and future workplaces.

## Long Term Planning

Cycle A	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Class 1-Reception	<b><u>Understanding of the World-Technology 30/50months</u></b> Knows how to operate simple equipment, e.g. turns on CD player and uses remote control. Shows an interest in technological toys with knobs or pulleys, or real objects. Knows that information can be retrieved from computers.		<b><u>Understanding of the World-Technology 40/60months</u></b> Completes a simple program on a computer. Uses ICT hardware to interact with age-appropriate computer software.		<b><u>Understanding of the World-Technology ELG</u></b> Children recognise that a range of technology is used in places such as homes and schools. They select and use technology for particular purposes.	
Class 2 Yr 1/2	<b>Digital painting</b> E-safety basic rules		<b>Internet searching skills</b> <b>Programming sequences of commands to animate pictures.</b>		<b>Components of a computer – technology around us</b> <b>Technology uses beyond school – IT around us</b> <b>QR codes – introduction to quizzes (QR codes for the quizzes)</b> E-safety media players	
Class 3 Yr 3/4	<b>Digital communication methods – connecting computers</b> <b>Uses of technology and their impact – connecting computers</b> <b>URLS and the topology of the Internet – the internet</b> <b>Creating media - animation</b>		E-safety: child-friendly websites <b>Internet searching skills – the internet</b> E-safety: gaming safely <b>Internet terminology- the internet</b> <b>Game design – repetition in games (programming)</b>		<b>Using conditional events in programs – events and actions</b> <b>Using a variable in a program</b> <b>Creating an e-book ~ audio editing (podcast)</b> Digital painting	
Class 4 Yr 5/6	E-safety: Zip it Block it Flag it		<b>Photo editing – video editing</b> E-safety: messaging safely, digital footprints,		Digital maps – route finding <b>Spreadsheet maths programs</b>	

	<p>History of technology – computing systems and networks</p> <p>Impact of technology on society- computing systems and networks - communication</p> <p>Internet searching skills - communication</p>		<p>sharing safely and vlogging rules</p>		<p>App design – website design</p> <p>Binary numbers – python microbits</p>	
<b>Cycle B</b>	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Class 1-Reception	<p><b>Understanding of the World-Technology 30/50months</b></p> <p>Knows how to operate simple equipment, e.g. turns on CD player and uses remote control. Shows an interest in technological toys with knobs or pulleys, or real objects. Knows that information can be retrieved from computers.</p>		<p><b>Understanding of the World-Technology 40/60months</b></p> <p>Completes a simple program on a computer. Uses ICT hardware to interact with age-appropriate computer software.</p>		<p><b>Understanding of the World-Technology ELG</b></p> <p>Children recognise that a range of technology is used in places such as homes and schools. They select and use technology for particular purposes.</p>	
Class 2 Yr 1/2	<p>Multimedia e-book - <i>Digital writing – e-book (adapt for ipads)</i></p> <p>E-safety basic rules</p> <p>Basic photo editing skills</p>		<p>Typing skills</p> <p>Basic word processing</p>		<p>QR codes – introduction to quizzes (QR codes for the quizzes)</p> <p>E-safety media players</p>	
Class 3 Yr 3/4	<p>Online quiz making – <i>branching databases</i></p> <p>Trifold leaflet design/ Word processor text formatting tools – <i>desktop publishing</i></p> <p>Photo editing</p> <p>Exploring digital maps</p>		<p>LOGO-type programming</p> <p>Using repeat events in a program</p> <p>Programming commands to run at different times</p> <p>E-safety: Message sharing consequence</p> <p>E-safety: passwords</p>		<p>Algorithms</p> <p>Photo collages</p> <p>Debugging</p>	
Class 4 Yr 5/6	<p>Internet searching skills</p> <p>Programming</p> <p>E-safety: sharing photos safely</p> <p>Poster design – <i>wed page creation</i></p>		<p>E-safety: digital citizen behaviours</p> <p>Photo editing – <i>video editing</i></p> <p>Drawing tools – vector graphics</p> <p>Using numbers in a program</p>		<p>E-safety: concept cartoons</p> <p>Algorithms and flowcharts</p> <p>Spreadsheets</p> <p>Animation presentation – programming variables in games</p> <p>Stop motion animations– programming variables in games</p>	