

# St John and St James Computing

*Jesus said, 'I have come that you will have life, life in all its fullness.'*



Computing Scheme  
of Work

At St John and St James we aim to deliver a computing education that equips pupils to use computational thinking and creativity to understand and change the world. Computing has deep links with mathematics, science, and design and technology, and provides insights into both natural and artificial systems. Computing also ensures that pupils become digitally literate – able to use, and express themselves and develop their ideas through, information and communication technology – at a level suitable for the future workplace and as active participants in a digital world.

National Curriculum 2014

## During Foundation Stage

Pupils build confidence to use technology purposefully to support their learning for Early Learning Goals as appropriate.

## During Key Stage 1 Online Safety; Digital Literacy

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.

### Computer Science

Understand what algorithms are; how they are implemented as programs on digital devices; and that programs execute by following precise and unambiguous instructions.

### Information Technology

Use technology purposefully to create, organise, store, manipulate and retrieve digital content.

## During Key Stage 2 Online Safety; Digital Literacy

Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concern about content and contact.

They can recognise features online that are risks and those that exist to protect them. Pupils are aware that their actions online have an impact not only on themselves but on others as well. They know to ask for help if they are worried or distressed by something online.

### Computer Science

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.

### Information Technology

Use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content.

<p><b>Planning</b></p> <p>Carefully designed and sequenced units that build skills over time, with clearly defined outcomes.  In depth coverage of the National Curriculum, with a keen focus on online safety through all units of work.  Plans and resources are designed to support the needs of pupils with SEND/higher ability and those new to English  Spaced practice and retrieval, regular opportunities to revisit skills and content  Formative and summative assessment opportunities built into teaching units.  Fully supported CPD for non-specialist teachers.</p>	<p><b>Teaching</b></p> <ul style="list-style-type: none"> <li>• Units are planned in 3-6 week blocks through the academic year.</li> <li>• Flexible groupings are used during lessons e.g. mixed ability group work, paired work, guided and independent work and whole class work</li> <li>• Lessons are mostly practical and the best devices for the lesson outcomes will be determined by the teacher.</li> <li>• Key stage 1 and 2 each have a weekly 1 hour Computing lesson E-safety runs throughout the whole year as appropriate, with external workshops provided to different year groups and whole class assemblies.</li> <li>• Units have e-safety embedded</li> <li>• Teaching will be in line with the school Teaching &amp; Learning policy, embedding Rosenshine’s principles of instruction</li> </ul>
<p><b>Marking and feedback</b></p> <p>Pupils are given immediate verbal feedback during lessons  Self and peer assessment  Written feedback</p>	
<p><b>Assessment</b></p> <p>The purposes of assessment should be clear:</p> <ul style="list-style-type: none"> <li>• <b>Formative:</b> identifying what pupils do and do not know, or can and cannot do, to inform feedback to them and any adjustments to teaching</li> <li>• <b>Summative:</b> measuring pupils’ (and/or school) performance at the end of a course or programme of study</li> <li>• Children’s work is stored electronically in ‘My Work’ files on Purple Mash for assessment and monitoring.</li> </ul>	<p><b>ICT Resources</b></p> <p><b>Displays</b>  Displays are kept up to date and relevant to themes, displaying key vocabulary and concepts that are being taught through the Purple Mash Programme</p> <p><b>Computing Resources:</b>  Resources are stored in the ICT Suites and in various Storage trolleys around the school.  Each Year group has a complete set of Google Chrome Books to use through the curriculum.  The school also has a set of 15 I pads that pupils can use for a range of purposes, on the go.</p>
<p><b>Monitoring</b></p> <p>Monitoring is undertaken by teachers, subject leader and SLT during the school year to measure the impact of the Computing curriculum.  This will include;</p> <ul style="list-style-type: none"> <li>• learning walks during lessons</li> <li>• discussions with pupils about what they have learnt</li> <li>• reviews of children’s skills progress from assessment data and portfolios</li> <li>• audits of staff training needs to improve subject knowledge and confidence</li> <li>• reviews of the Computing Improvement Plan</li> </ul>	