

| Computing – Year 3     |  |  |  |
|------------------------|--|--|--|
| Computing intent       |  | Vocabulary   |  |
| Aims                   | <ul style="list-style-type: none"> <li>• can understand and apply the fundamental principles and concepts of computer science, including abstraction, logic, algorithms and data representation</li> <li>• can analyse problems in computational terms, and have repeated practical experience of writing computer programs in order to solve such problems</li> <li>• can evaluate and apply information technology, including new or unfamiliar technologies, analytically to solve problems</li> <li>• are responsible, competent, confident and creative users of information and communication technology.</li> </ul>   | links, hyperlinks, linear, webpage, browser, control, variable, input, output, sequence, repetition, input, output, loops, detect, correct sequence, animation, input, output, conditions, loops, network, www, web crawlers, index, server, clients, routers, IP address, DNS |  |
|                        | Knowledge and skills   | Useful Units   | Outcomes   |
| Digital Literacy       | <ul style="list-style-type: none"> <li>• use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact.</li> <li>• Understand the opportunities networks offer for communication and collaboration.</li> <li>• use search technologies effectively, appreciate how results are selected and ranked, and <u>be discerning in evaluating digital content.</u></li> </ul>   | iProgram (1) – games and animation development<br>iProgram (2) – Robotics with WeDo LEGO<br>iSafe – eSafety<br>iConnect – internet and World Wide Web incl. searching<br>iPodcast – Audio editing with Podcasts  | Games<br>Animations<br>LEGO Robots<br>Searching the internet<br>Editing a podcast<br>Understanding database<br>Understanding networks<br>Looking at computer simulations   |
| Information Technology | <ul style="list-style-type: none"> <li>• select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information.</li> <li>• <u>use search technologies effectively</u>, appreciate how results are selected and ranked, and be discerning in evaluating digital content.</li> </ul>  | iSimulate – Exploring computer simulations<br>iData – Introducing databases<br>iConnect – internet and World Wide Web incl. searching<br>iPodcast – Audio editing with Podcasts  | Cross-curricular links   |
|                        |  |  | iPodcast – English, Maths, Science<br>iConnect – Geography, Maths<br>iNetwork – Geography<br>iData – Maths, Science<br>iProgram (1) – Art, DT, English, Maths, Music, Science<br>iProgram (2) – DT, Maths, Science<br>iSimulate – Maths, Science |
| Computer Science       | <ul style="list-style-type: none"> <li>• design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts.</li> <li>• use sequence, selection, and repetition in programs; work with variables and various forms of input and output.</li> <li>• use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs.</li> <li>• understand computer networks including the internet; how they can provide multiple services, such as the world wide web; and the opportunities they offer for communication and collaboration.</li> <li>• use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content.</li> </ul> | iProgram (1) – games and animation development<br>iProgram (2) – Robotics with WeDo LEGO<br>iSimulate – Exploring computer simulations<br>iConnect – internet and World Wide Web incl. searching<br>iNetwork – Introducing networks  |  |