



love the journey

**Curriculum Implementation 2025-26**

**Secondary**

<b>LCA Strand</b>	<b>Technology, Enterprise &amp; Sport</b>
<b>Subject</b>	<b>Computing</b>
<b>Key Stage</b>	<b>Key Stage 3 (Chapter 7-9)</b>

<p>What are the key concepts taught?</p>	<p>At Key Stage Three in Computing, pupils will learn the following concepts:</p> <ul style="list-style-type: none"> <li>• Algorithms: they will understand what algorithms are, how they work, and how to write and use them</li> <li>• Programming: they will learn to program using a variety of languages like Kodu, Scratch, and Python. This will include concepts such as variables, loops, conditions, and functions.</li> <li>• Data representation: they will understand how data is represented and stored in a computer, including binary, hexadecimal, and ASCII</li> <li>• Computer networks: they will understand how computers communicate with each other (internet, local area networks (LANs), and wide area networks (WANs)</li> <li>• Hardware and software: they will understand the basic components of a computer system and their function.</li> <li>• Computational thinking: They will learn to become resilient in solving problems by developing the ability to break down complex problems into smaller parts.</li> <li>• Digital literacy and e-safety: they will learn how to stay safe online, use digital tools effectively, and also learn how to use the Office365 suite of programs to help them in their studies.</li> </ul>
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<p>What is the sequencing of units?</p>	<p><b>Chapter 7:</b></p> <ul style="list-style-type: none"> <li>• Office365 orientation: using Word, Outlook, OneNote &amp; Teams effectively.</li> <li>• Introduction to Computer Science (pioneers, i/o devices, networks, binary and encryption)</li> <li>• Visual programming (Kodu)</li> <li>• Spreadsheet modelling</li> <li>• Scratch programming</li> </ul>
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	<p><b>Chapter 8</b></p> <ul style="list-style-type: none"> <li>• Photoshop</li> <li>• Advanced spreadsheet modelling</li> <li>• Mobile app development</li> <li>• Vector graphics</li> <li>• Developing for the web (HTML &amp; CSS)</li> <li>• Introduction to Python programming language</li> </ul> <p><b>Chapter 9</b></p> <ul style="list-style-type: none"> <li>• Graphics and multimedia product design</li> <li>• Design, build, and test a platform game</li> <li>• Physical computing (Microbits)</li> </ul>
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<p>How do we encourage pupils to see the links between different units and concepts?</p>	<p>By showing links between the different concepts taught helps to develop the pupils critical thinking and problem-solving skills. Some methods used are:</p> <ul style="list-style-type: none"> <li>• Real-world examples to show pupils the connection and to see how they are applied in the real world.</li> <li>• Visual aids: diagrams/mind maps/flowcharts</li> <li>• Class discussions to allow pupils to hear different opinions from their peers</li> </ul>
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<p>What are the planned opportunities for adaptive teaching, including for SEND, the more able, and disadvantaged pupils?</p>	<ul style="list-style-type: none"> <li>• Real-time feedback – providing feedback to pupils as they're working through the lesson activities.</li> <li>• Varying the lesson pace, allowing pupils to work at their own speed through scaffolded resources or video tutorials.</li> <li>• Variety of teaching strategies to support different learners, i.e., hands-on activities to help pupils learn best through practical tasks.</li> <li>• Gamification of lesson activities to engage learning, particularly with disadvantaged or SEND pupils</li> </ul>
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<p>What are the planned opportunities for retrieval and reflection by pupils?</p>	<ul style="list-style-type: none"> <li>• Do now / retrieval tasks at the start of the lesson to check previous understanding</li> <li>• Review quizzes: Kahoot or Quizlet can be used to recall information from previous lessons.</li> <li>• Peer feedback: pupils give their peers valuable feedback on tasks completed</li> <li>• Evaluation documents so pupils can reflect on their learning.</li> <li>• Exit tickets at the end of the lesson so that pupils can write a brief response to a question related to the concepts learnt in the lesson.</li> </ul>
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What are the opportunities for feed forward by the teacher post assessment outcomes?

- In coding lessons pupils are given specific recommendations for improving the syntax of the code, structure or logic.
- In multimedia projects pupils are given ways to improve the design or layout of the project
- Teachers regularly review the levels of attainment of each pupil to set them targets for the next progress phase. Pupils are also encouraged to set their own targets on the LC assessment record forms.
- Departmental data allows teaching staff to analyse and identify pupils' levels, which helps to inform future planning.

What are the planned opportunities for developing Reading?

- Giving pupils the opportunity to read out loud, i.e., reading the instructions for an activity or reading a context statement.
- Key technical terminology is displayed for all pupils to see
- Using case studies to provide pupils with real-world examples of how technology is used in industry.
- Using online digital resources (e.g., online tutorials to provide pupils with interactive reading opportunities)
- The regular KS3 online homework (iDEA website) requires pupils to work at their own pace to investigate CS/ICT topics of interest and then answer questions at the end, based on what they've learnt.

What are the planned opportunities for developing literacy, numeracy, oracy and SMSC?

**Literacy:**

- Pupils are allowed to write in a range of styles, like technical reports, instructions, and code documentation, using appropriate grammar and spelling.

**Numeracy:**

- Pupils will learn numeracy through algorithm design, as it will develop their logical reasoning skills to solve problems.
- Using binary and hexadecimal allows pupils to learn new number systems and be able to convert between them.
- Teaching pupils to program helps to develop their ability to use mathematical concepts like variables and functions to solve problems.
- Encouraging pupils to solve real-world problems using mathematical skills.

**Oracy:**

- By modelling clear and effective speaking in the teacher's own communication.
- Pupils have the opportunity to deliver presentations to the rest of the class
- Provision of regular feedback on pupils' oracy skills
- Pupils also get the opportunity to have paired/group discussions to help develop their speaking and listening

skills.

**SMSC:**

- Pupils at KS3 get the opportunity to work on joint tasks/projects to help develop their social skills and to help them work effectively in teams.
- Looking at a variety of computer science pioneers who all come from very different backgrounds.
- Pupils also look at the responsible and safe use of technology through e-safety training. They look into topics like cyberbullying and consider the impact of their actions on others.